SITE INVESTIGATION AND REMEDIAL ACTION REPORT

Cristo Rey Jesuit High School – Historic Fill
FID# 241878450
BRRTS #02-41-583465

Prepared For:

Cristo Rey Milwaukee NMTC SP
Attn: Mr. Andrew Stith
1818 W. National Avenue
Milwaukee, Wisconsin 53204

Submitted To:

Wisconsin Department of Natural Resources
Remediation and Redevelopment
2300 N. Martin Luther King Drive
Milwaukee, Wisconsin 53212

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SUBMITTAL CERTIFICATION
SITE INVESTIGATION AND
REMEDIAL ACTION REPORT

Cristo Rey Jesuit High School – Historic Fill
1818 W National Avenue
Milwaukee, Wisconsin 53204

"I hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in ch. NR 700 to 726, Wis. Adm. Code."

2/21/2023
Date

Kapur Inc.
James E. Bannantine,
Economic Department Manager

"I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

WISCONSIN
JEREMY L. SCHWARTZ
E - 40478
MILWAUKEE, WISCONSIN
PROFESSIONAL ENGINEER

2/21/2023
Date

Kapur Inc.
Jeremy Schwartz, P.E.

"I hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in ch. NR 700 to 726, Wis. Adm. Code."

2/21/2023
Date

Kapur Inc.
Grant Zwiefelhofer
Geologist

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APPENDICES

1.0 INTRODUCTION

Kapur Inc. (Kapur) prepared this Site Investigation and Remedial Action Report for Cristo Rey Jesuit High School – Historic Fill (WDNR ERP Activity # 02-41-583465) located at 1818 West National Avenue in the City of Milwaukee, Milwaukee County, Wisconsin ("subject property"). Kapur performed this investigation in general compliance with Wisconsin Administrative Code (Chapter NR 716) to investigate contaminant impacts identified during geotechnical investigation activities conducted onsite for redevelopment.

Remedial action consisting of soil management activities completed during site redevelopment are also documented in this report.

1.1 Site Location

The subject property consists of a single Tax Parcel ID Number 4339927111 totaling 7.587 acres located in the Northwest ¼ of the Southeast ¼ of Section 31, Township 7N, Range 22E (**Ref. 1**). Wisconsin Transverse Mercator (WTM) coordinates for the center of the parcel are: X 688168.43398 and Y 285506.30500. The site is located on the north side of West National Avenue in the City of Milwaukee, Milwaukee County, Wisconsin (See **Figure B.1.a** for topographic site location and **Figure B.1.b** for a detailed site map of the subject property). The recorded parcel legal description is:

> 4339927111**:**
> LANDS IN SE 1/4 SEC 31-7-22 LANDS IN SD 1/4 SEC AND PARCELS 1 & 2 CSM NO 4352 COM AT A PT 35' S OF THE NW COR OF SD 1/4 SEC BEING THE S LI OF W PIERCE ST & THE E LI OF S 20TH ST-TH S 337.89'-TH N 88DEG 29' 19' E 188.0'-TH S 44DEG O2' 28' E 82.0'-TH S 21DEG 31' 55' E 80.0' TO A PT ON N LI OF W NATIONAL AV-TH ELY ALG SD LI 575.68' TO A PT-TH NLY 402.91' TO A PT IN S LI W PIERCE ST-TH WLY 848.55' TO THE PT OF COMM

1.2 Site Background and Contamination Identification

The subject property originally consisted of several residential properties prior to 1937, which were changed to commercial properties from circa 1937 through 2009. Several of the properties that make up the subject property had environmental cases as identified on the WDNR BRRTS database. The former addresses and BRRTS listings that make up the current subject property are summarized below:

WDNR Case Name	Former Address	WDNR FID#	WDNR BRRTS Case #	COCs/Status

Interstate Brands Corp	1823 W. Pierce St.(1818 W. National Ave.)	241878450	03-41-000547	Petroleum Closed
NDC/Pick & Save Mega Mart	1818 W National Ave.	241878450	04-41-169255	Engine Oil Spill Closed
Wenninger Co.	1728 W. National Ave.	241116040	03-41-001060	Petroleum Closed
Value Village	1828 W. National Ave.	241532949	03-41-001317	Petroleum Closed
NDC Inc. Mega Marts	1835 W Pierce St	241878450	03-41-099673	Petroleum Closed
NDC Inc. Mega Marts	1738 W National Ave.	241883070	03-41-101491	Petroleum Closed

Twenty-three (23) geotechnical soil borings were advanced by Giles Engineering Associates, Inc. (Giles) at the subject property in September 2018 to support redevelopment of these properties into a single property for Cristo Rey Jesuit High School. Copies of the boring logs are included in **Appendix A**. The geotechnical boring locations are depicted on **Figure B.2.a.1**. Kapur collected a total of 15 soil samples from the geotechnical borings for laboratory analysis of polynuclear aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) Metals, and volatile organic compounds (VOCs). PAHs, arsenic and lead were detected in one of more soil samples exceeding their respective WDNR NR 720 residual contaminant levels (RCLs) for direct contact and/or groundwater protection.

The source of impact was determined to be fill soils, and a release was reported to the WDNR. The WDNR issued a release notification in April 2019 and opened BRRTS case #02-41-583465.

1.3 Owner, Consultant, and Subcontractors List

The following section summarizes the names, addresses, and telephone numbers of the property owner, consultant, and subcontractors:

Owner: Cristo Rey Jesuit High School
1818 West National Avenue
Milwaukee, Wisconsin 53204
Email: astith@cristoreymilwaukee.org

Phone: (414) 436-4600
Contact: Mr. Andrew Stith

Consultant: Kapur Inc.
7711 North Port Washington Road
Milwaukee, Wisconsin 53217
Email: gzwiefelhofer@kapurinc.com
Phone: (414) 410-5256
Contact: Grant Zwiefelhofer, Geologist

Contractors for Commodity Services:

Geoprobe Borings: Baake Field Services LLC
5256 N 27th Street
Milwaukee, Wisconsin 53209
Phone: (414)292-7569
Contact: Matthew Baake

Analytical Testing: Pace Analytical Services, Inc.
1241 Bellevue Street
Green Bay, Wisconsin 54302
WDNR Lab Certification # 405132750
Phone: (920) 321-6405
Contact: Christopher Hyska

2.0 GEOLOGY AND RECEPTORS

2.1 Regional and Local Geology and Hydrogeology

Native soil in the area generally consists of silty clay to clay loam and silty clay loam to silt loam. (**Ref. 2**). During the redevelopment construction activities clean fill was imported to the subject property, raising the ground surface elevation. There is no surface water on the subject property or any adjacent properties. Bedrock was not encountered during the site investigation or remediation activities, but likely consists of Sulurian age dolomite at depths of 50 feet below ground surface (ft bgs) or greater (**Ref. 3**).

Groundwater was encountered during the geotechnical drilling activities at depths ranging from 3 to 9.5 ft bgs but was not encountered in five of the 23 borings. A review of historical BRRTS cases in the area indicates that the depth to shallow groundwater typically ranged from approximately 9 to 11 ft bgs. The wide range of elevations detected during the geotechnical investigation suggests that the water was perched within the fill materials above finer-grained units. The perched water zones do not appear to be laterally extensive or connected. Shallow groundwater is expected to flow generally east toward Lake Michigan.

2.2 Receptors

According to the Wisconsin Department of Natural Resources (WDNR) online Well Driller Viewer records database, there are no private well construction reports within 1,200 feet of the subject property. Municipal water and sewer are supplied to the subject property. There are no wetlands, endangered species, or surface water bodies at or adjacent to the subject property.

2.3 Proximity to Other Potential Sources of Contamination

The subject property is bordered as follows (**Figure B.1.c**):

- On the north by West Pierce Street and RSR Services and a multi-unit residential building beyond.
- On the east by Triple E's Autobody shop and National Avenue Hotel.
- On the south by West National Avenue and Citgo – National Quick Mart and residential properties beyond.
- On the west by Advance Auto Parts and South 20th Street and residential properties beyond.

3.0 SITE INVESTIGATION METHODS AND RESULTS

3.1 Methods of Investigation

On December 5, 2018, Kapur directed the installation of five (5) direct push soil borings (GP-13-GP-17) by Baake Field Services LLC (Baake) of Milwaukee, Wisconsin. The direct push borings were advanced to depths of 5-10 ft bgs, and each direct pursh boring was positioned near geotechnical boring locations where soil samples were not previously collected. Soil samples were logged by a Kapur field geologist, and soil boring logs are included in **Appendix A**. Seven (7) soil samples were collected and submitted for laboratory analysis of PAHs, RCRA metals, and VOCs. Excess soil cuttings were containerized by Baake and transported to Orchard Ridge in Menomonee Falls, Wisconsin for disposal (**Appendix B**).

Free water was not encountered in any of the direct push soil borings, so no groundwater samples were collected.

3.2 Investigation Results

The following discussion of investigation results includes relevant data collected during the 2018 geotechnical investigation described above.

3.2.1 Soil Lithology

The subsurface conditions encountered at the subject property consisted of fill soils containing anthropogenic materials ranging in depths from approximately 0 to 11.5 ft bgs. Fill materials were noted at 16 of 23 boring locations (excluding borings that were placed in the same area for sample collection) (**Figure B.1.d**), many contained anthropogenic materials including: cinders, asphalt rubble, brick fragments, concrete fragments, foundry materials, organic matter, and glass fragments. In the absence of anthropogenic materials, fill soils were determined by the field staff or driller. Fill material without anthropogenic materials often appeared to be native soils from the area that had been previously excavated or reworked.

The fill material was underlain by native soils to the end of boring, ranging from depths of 11 feet – 26 feet bgs. The native materials consisted of sand, silty sand, sandy silt, clay, silty clay, silty sand & gravel.

3.2.2 Soil Analytical Results

Table A.1 summarizes the soil analytical results for the soil sampling activities. **Figures B.2.a.i** through **B.2.a.iii** illustrate the soil boring locations and PAH, metals, and VOC soil analytical results, respectively. The laboratory reports and chains-of-custody are included in **Appendix C**. Laboratory analysis indicated:

3.2.2.a PAHs

Benzo(a)pyrene exceeded the WDNR ch NR 720 industrial direct contact RCLs at B-21. One or more PAHs exceeded its WDNR ch. NR 720 non-industrial direct contact RCL in samples collected from 0-4 ft bgs at B-19, B-23, and GP-14. One or more PAHs also exceed the WDNR ch. NR 720 groundwater protection standard in samples collected at B-19, B-21, B-23, and GP-14 (**Figure B.2.a.i**).

3.2.2.b RCRA Metals

The sample from B-21 (2-3.5') exceeded the WDNR ch. NR 720 industrial direct contact RCL for arsenic and lead. Soil at this location also exceeded the WDNR ch. NR 720 non-industrial direct contact RCL for cadmium and exceeded the WDNR ch. NR 720 groundwater protection standard for barium, mercury, selenium, and silver. Lead exceeded the WDNR ch. NR 720 non-industrial direct contact standard (400 mg/kg) at B-12. (**Figure B.2.a.ii)**.

3.2.2.c VOCs

Several VOCs exceeded the WDNR ch. NR 720 groundwater protection RCLs at B-12 (2-3.5'), B-12 (9.5-11'), B-21 (2-3.5'), and B-23 (0.5-2') (**Figure B.2.a.iii)**.

3.3 SITE INVESTIGATION SUMMARY

3.3.1 FILL ASSESSMENT

The investigation results indicated that soil contaminants appeared to be generally related to fill materials, particularly those materials that contained anthropogenic materials or appeared be consistent with foundry sand material. As noted above, suspected fill material was identified at 16 of the 23 soil borings advanced across the subject property, eight of which contained anthropogenic materials (**Figure B.1.d**).

Due to the heterogeneous nature of fill materials, the potential exists for contaminated fill to exist within unexplored areas of the subject property. Given the size of the property, and the end use which involves significant cover and hardscape, further investigation of the fill materials was

deemed to be impractical and cost prohibitive. Given this, it must be assumed that potentially impacted fill materials could exist at any location of the subject property.

3.3.2 GROUNDWATER ASSESSMENT

The depth to water was encountered at depths varying from approximately 3 to 9.5 ft bgs during the geotechnical exploration, and free water was not encountered within any of the direct push borings (advanced to depths of 5 to 10 ft bgs). The scattered presence of free water at varying depths appears to be generally related to fill thickness and the presence of underlying clay materials, suggesting that the free water encountered during drilling was perched water, and not indicative of a shallow groundwater table. Previous BRRTS cases at the subject property suggest that the depth to groundwater is generally 9 ft bgs or greater.

The contaminated soils appear to be restricted to the fill materials. In each soil boring location where a shallow and deep soil sample was collected (B-12, B-18, B-21, B-23, GP-14 and GP-16), the contaminant concentrations are lower in the deeper sample than in the shallow sample. This indicates that there has historically been very little leaching of contaminants from shallow soils, and further indicates that the potential for leaching of contaminants from shallow fill soils to groundwater is low.

3.3.3 VAPOR INTRUSION ASSESSMENT

The contaminants of concern at the subject property consist of PAHs and metals. Both PAHs and metals or non-volatile and therefore the risk of vapor migration of these chemicals is low. VOCs were detected at concentrations exceeding WDNR groundwater pathway RCLs. However, VOCs were detected in only five of the 22 samples analyzed, indicating that VOCs are not common in the fill soils, and the mass of VOC contaminants in the soil is low. Given the relatively low detected VOC concentrations, and their uncommon occurrence, the risk of vapor intrusion from VOCs is low.

3.3.4 EMERGING CONTAMIANTS EVALUATION

An evaluation for the potential of PFAS and 1,4-dioxane compounds to have been produced, used, handled, or stored onsite was conducted. According to the Interstate Technology Regulatory Council (ITRC) the main sources of PFAS in the environment are from PFAS production & manufacturing facilities, the use of aqueous film-fighting foams (AFFF), waste disposal, and wastewater treatment. None of the historic operations at the subject property appeared to manufacture, use or store PFAS chemicals.

Historically, 1,4-dioxane was used as a stabilizer for 1,1,1-trichloroethane. None of the historical releases from the previous sites that make up the subject property contained chlorinated solvents. Since 1,1,1-trichloroethane was not found on-site during the investigation, it is unlikely that 1,4-dioxane would be present in soil or groundwater at the subject site. Due to these factors, the potential for significant quantities of PFAS or 1,4-dioxane to be in subsurface soils at the subject property is low. Based on this, additional assessment of emerging contaminants is not warranted.

4.0 REMEDIAL ACTION

The subject property was impacted by apparent fill materials. The impacted fill contained PAHs, metals at concentrations exceeding groundwater protection and direct contact pathway RCLs. The fill also contains PAHs, metals and VOCs at concentrations exceeding groundwater protection standards.

The subject property (merged from several sites with closed BRRTS cases) has been redeveloped into Cristo Rey Jesuit High School, and includes a large high school building, pavement for drive and parking areas, and limited landscaped areas. The remediation strategy was developed to incorporate the planned redevelopment elements, and included:

- Excavation of an identified area of fill soils that exceeded WDNR NR 720 industrial direct contact RCLs,
- Relocation of residual fill soils with contaminant concentrations exceeding WDNR NR 720 non-industrial direct contact RCLs beneath the school building,
- Use of the school building pavement, paved parking areas, turf athletic field, and landscaped areas as an engineered barrier/surface cover to limit direct contact with residual impacted soils and limit surface water infiltration
- Development of a barrier maintenance plan to serve as an institutional control to ensure that the barriers are maintained to provide a consistent level of protection.
- Cristo Rey High School understands that the subject property will have a continuing obligation to maintain the cover barrier system.

A Soils Management plan (**Ref. 4**) was developed for the construction activities so that impacted fill soils were managed properly. From June 2019 through June 2020 Kapur periodically monitored soil excavation and relocation activities during the high school construction project.

A total of 818.10 tons of impacted fill material surrounding soil boring B-21 (which the only investigation location where impacted fill soils contained contaminants that exceeded WDNR NR 720 industrial direct contact pathway RCLs) was excavated and transported offsite for disposal at

Waste management – Orchard Ridge licensed landfill facility. The location of soils removed for off-site disposal is depicted on **Figure B.4.** Soil was excavated to an approximate depth of 4 - 5 feet bgs.

In accordance with the Soil Management Plan (**Ref. 4**), residually impacted soils identified during previous investigation activities with contaminant concentrations exceeding WDNR NR 720 non-industrial direct contact RCLs were relocated beneath the school building footprint during construction activities (**Figure B.5**). The top 2 – 3.5 ft of impacted soil in identified impacted areas was excavated and used for the foundation of the western portion of the high school building. Approximately 2 – 2.5 ft of clean imported fill was placed over the impacted fill in the school building.

A draft cover maintenance plan (**Appendix D**) was developed to ensure the subject property cover materials are maintained to remain protective of human health, by preventing direct contact with residually impacted soils, and limiting surface water infiltration and leaching of contaminants to the shallow groundwater. Because of the heterogeneous nature of fill materials, the potential exists for elevated contaminant concentrations to exist at any location; therefore, the cover materials across the entire subject property require ongoing maintenance. The cover materials at the subject property include:

- The school building,
- The turf-covered athletic field, consisting of a base layer consisting of a roughly two-inch-thick rubber shock pad, overlain with an artificial grass made of monofilament fibers, infilled with a mixture of rubber and sand grains,
- Paved walkways, driveways, and parking area,
- Limited landscaped areas.

5.0 FINDINGS AND CONCLUSIONS

The findings and conclusions regarding Cristo Rey Jesuit High School – Historic Fill SI activities at 1818 West National Avenue in the City of Milwaukee, Wisconsin are summarized below:

- The subject property was formerly occupied by several properties having closed BRRTS cases. The properties were consolidated to the present subject property, which is currently occupied by a school building, a turf athletic field, asphalt parking areas, and limited landscaped greenspace.

- Soil samples collected during the geotechnical investigation conducted in 2018 contained PAHs, VOCs, and RCRA metals at concentrations exceeding regulatory standards.

- The subject property geology contained fill material ranging from depths of approximately 0 feet to 11.5 ft bgs. The fill material was underlain by native soils ranging from depths of 0 – 26 ft bgs, the deepest depth explored. The native materials consisted of sand, silty sand, sandy silt, clay, silty clay, silty sand and gravel.

- Groundwater was not encountered during subject property investigation activities, although isolated perched water was encountered during the geotechnical investigation. A review of former subject property WDNR BRRTS cases indicates that the depth to groundwater at the subject property was at least 9 ft bgs.

- The source of impact at the subject property appears to be the fill materials that contained anthropogenic materials.

- Impacted fill soils with identified contaminant concentrations that exceeded WDNR NR 720 industrial direct contact RCLs were excavated and transported off-site for landfill disposal. Residual-impacted fill with identified contaminant concentrations that exceeded WDNR NR 720 non-industrial direct contact RCLs was relocated beneath the high school building, which will serve as a barrier cap.

- Due to the heterogeneous nature of fill materials, contaminated soils could potentially exist at any point at the subject property. As a final remediation measure, the school building, paved parking areas, turf athletic field, and landscaped areas will be maintained to limit direct contact with residual soil contamination, and limit surface water infiltration over the entire property. Kapur has developed a cover maintenance plan to ensure the cover system is properly monitored and maintained.

The results of this study satisfy the requirements of WDNR ch. NR 716 requirements and have satisfactorily defined the magnitude and extent of contamination at the subject property. Furthermore, the remedial actions completed at the subject property, and the planned ongoing maintenance of the cover system indicate that the subject property meets the criteria for Case Closure per ch. NR 726.

6.0 REFERENCES

1. Milwaukee County GIS and Land Information Interactive Map https://lio.milwaukeecountywi.gov/Html5Viewer/index.html?viewer=MCLIO-Map
2. Syverson, K.M. Clayton, L., Attig, J.W., and Mickelson, D,M., eds., 2011, Lexicon of Pleistocene Stratigraphic Units of Wisconsin: Wisconsin Geological and Natural History Survey Technical Report 1, 180 p.
3. M. G. Mudrey, Jr, B.A. Brown and J. K. Greenberg (1982). Bed Rock Geologic Map of Wisconsin.
4. Kapur & Associates, Inc. (February 2019), Soil Management Plan, Cristo Rey Jesuit High School, 1818 West National Avenue, Milwaukee, Wisconsin 53204

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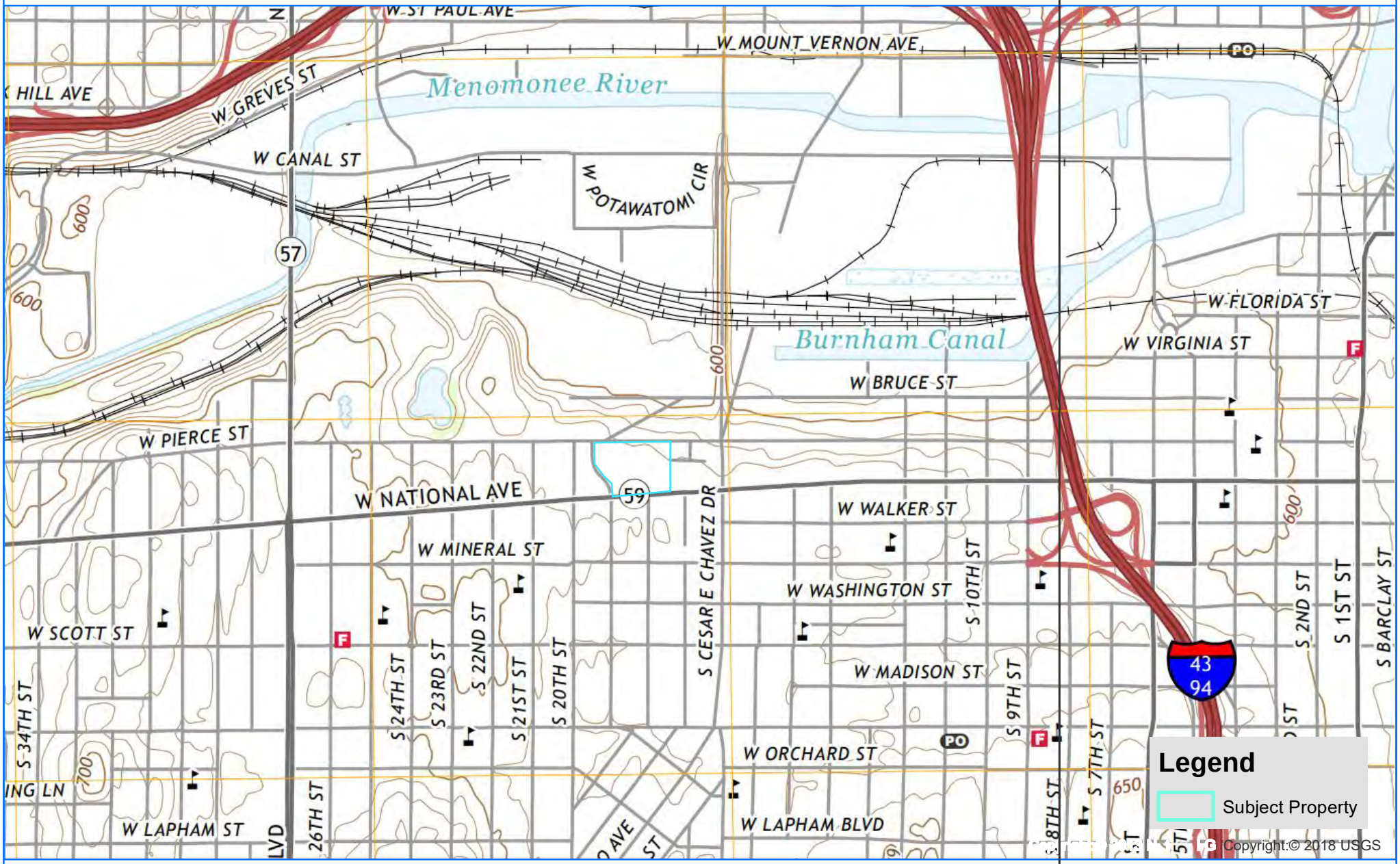
SITE MAPS AND FIGURES



SHEET: LOCATION MAP

FIGURE: B.1.a

PROJECT: CRISTO REY JESUIT HIGH SCHOOL - HISTORIC FILL

LOCATION: 1818 WEST NATIONAL AVENUE, MILWAUKEE, WISCONSIN 53204

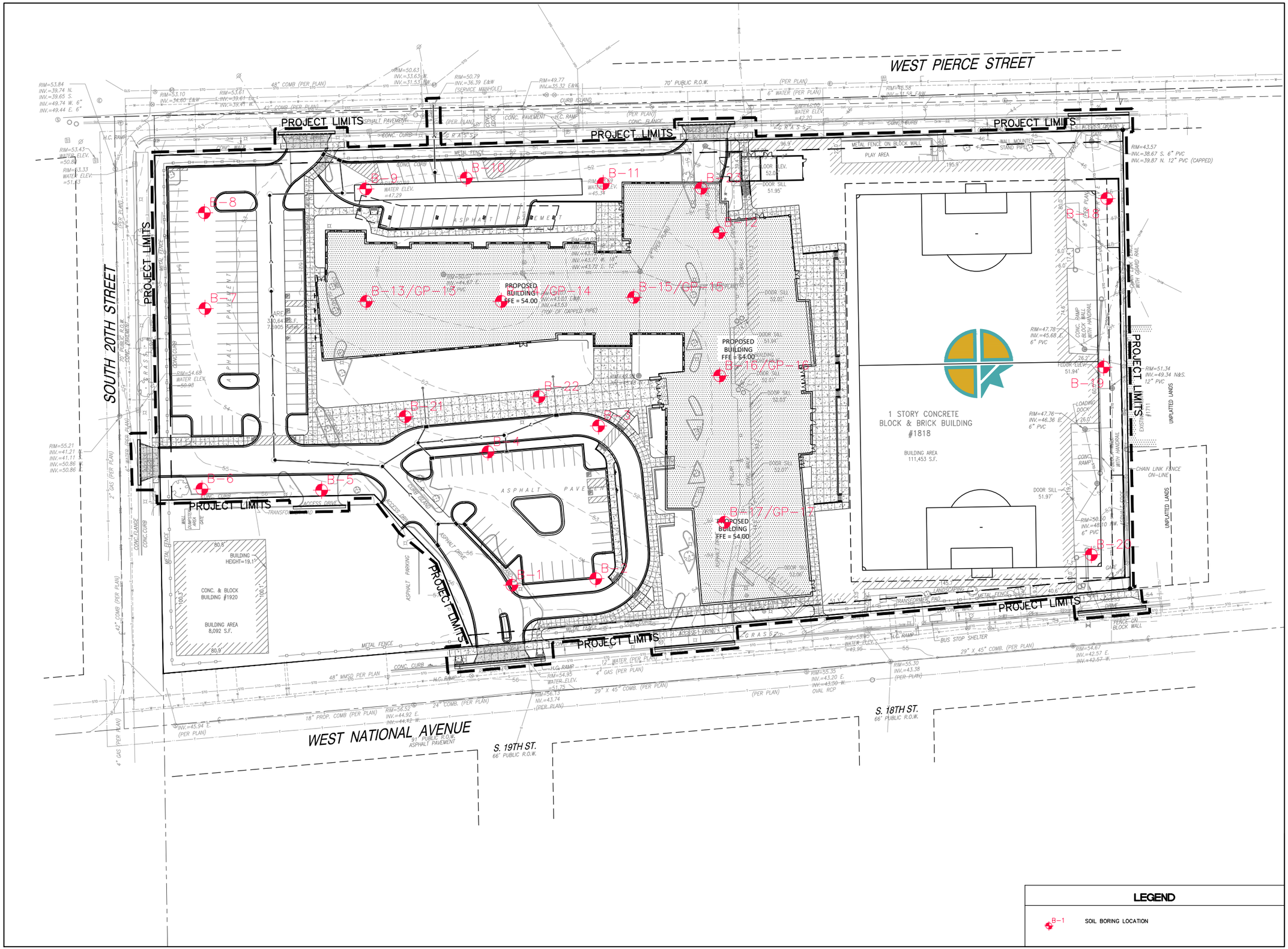
NORTH ARROW

0 300 600 Feet

1 inch = 600 feet

we listen. we innovate. we turn your vision into reality.

DRAWN BY:	CHECKED BY:	APPROVED BY:	PROJECT NO.	DATE:	REVISION DATE:
JMS	TEH	TWP	20.0258.01	07/14/2020	



LEGEND

B-1 SOIL BORING LOCATION

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

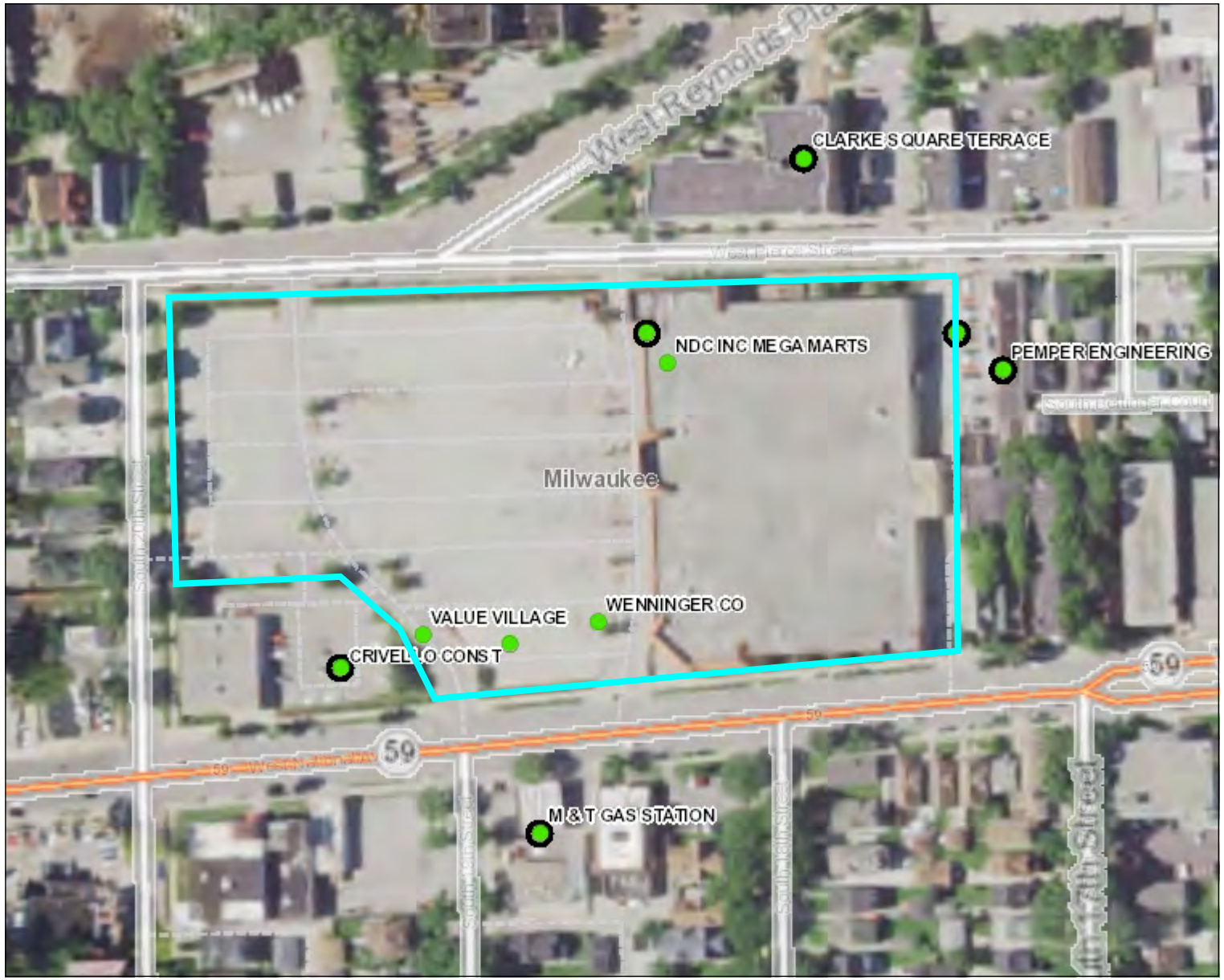
SHEET:
DETAILED SITE MAP

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	11/03/2022

SHEET NUMBER:
B.1.b

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\Figures\B.1.b Detailed Site Map.dwg

B.1.c. WDNR RR Sites Map



Legend

- Open Site
- Closed Site
- Continuing Obligations Apply
- Facility-wide Site

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

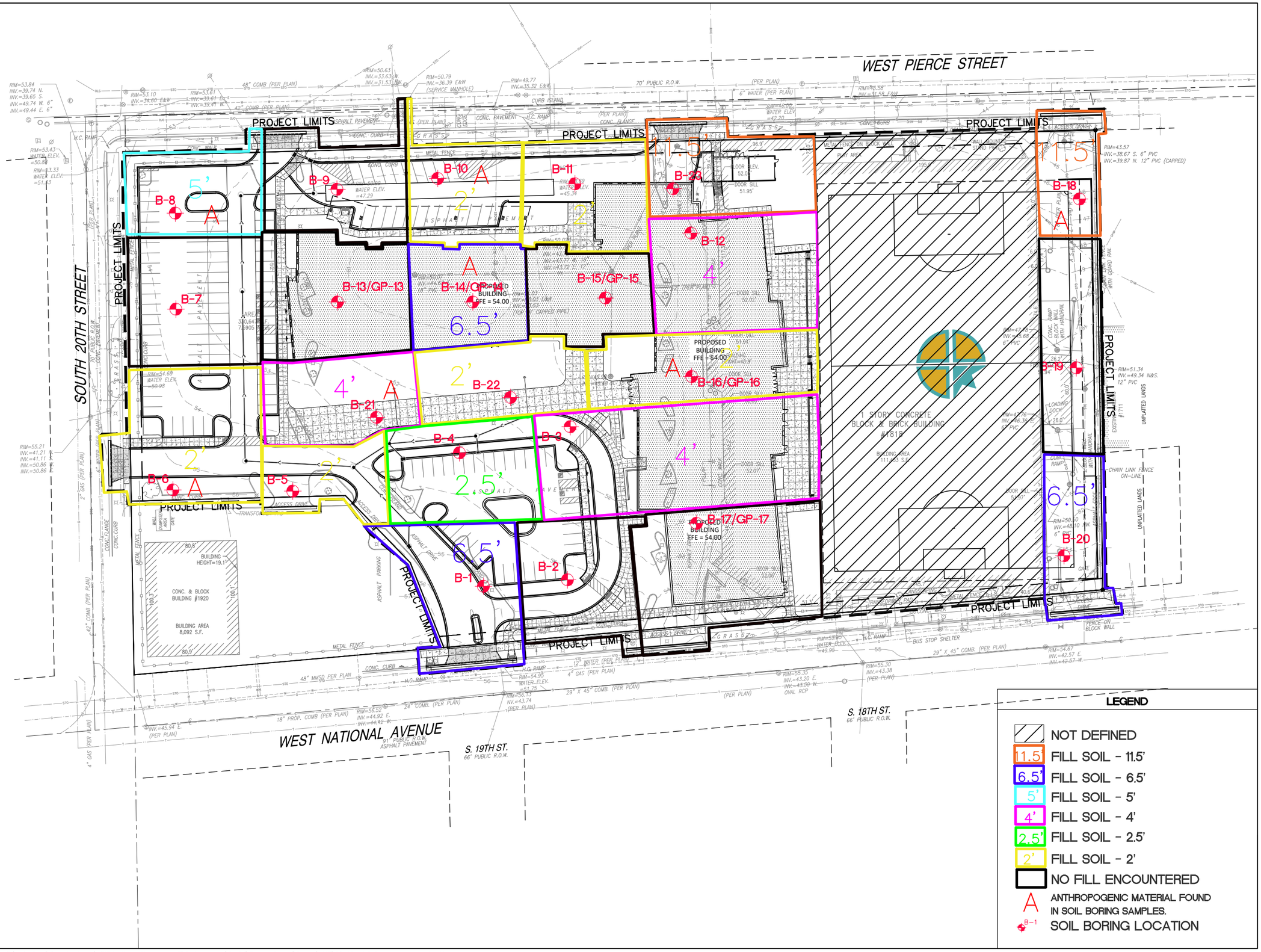
1: 1,980

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

Note: Not all sites are mapped.

Notes

1818 West National Avenue



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PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

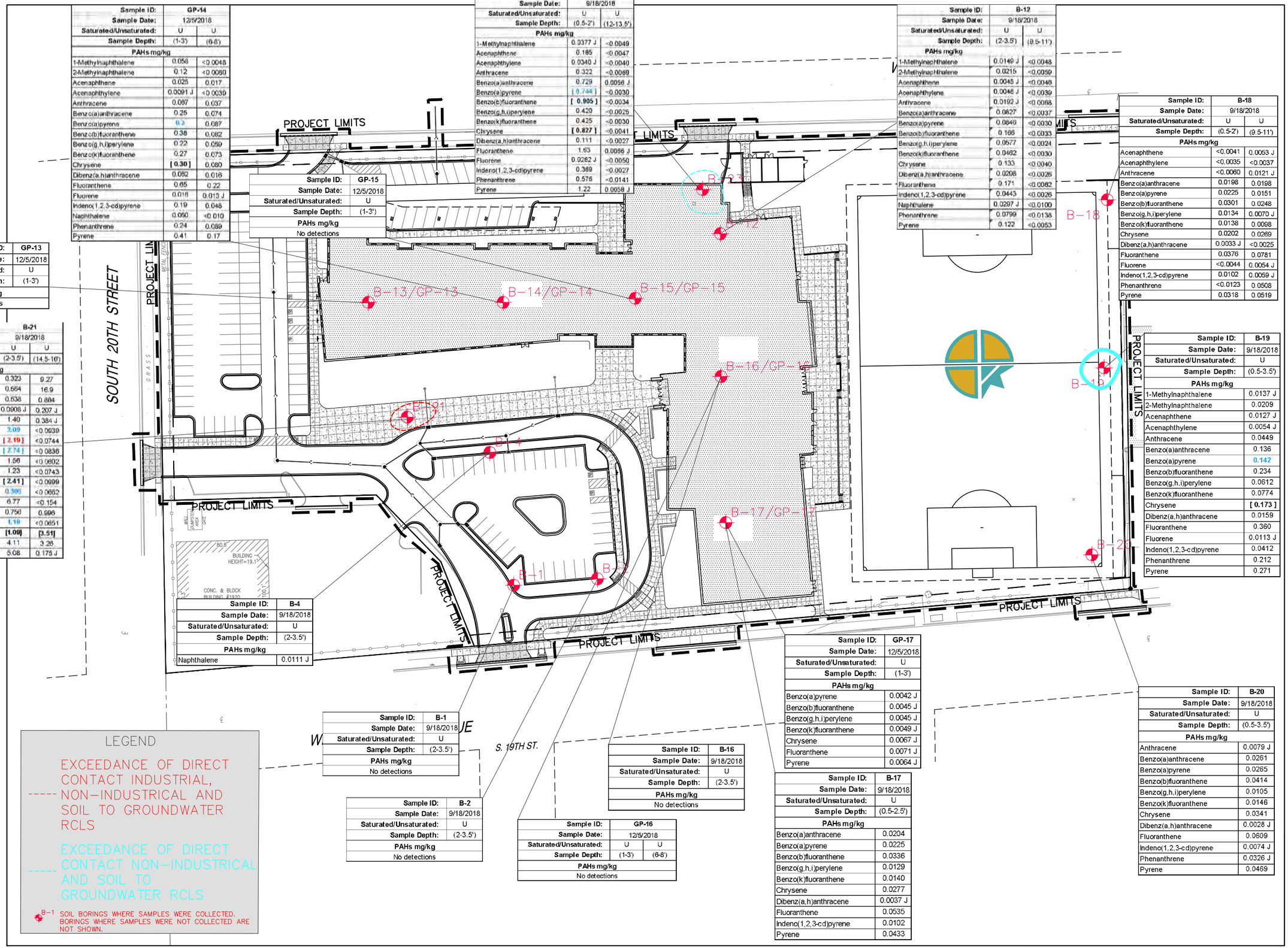
SEAL:

SHEET:
FILL MATERIALS LOCATION MAP

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	10/31/2022

FIGURE NUMBER:
B.1.d

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\Figures\CAD\fIGURE b.1.D Fill Materials Location Map.dwg



Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
PAHs mg/kg		
1-Methylnaphthalene	0.058	<0.0048
2-Methylnaphthalene	0.12	<0.0060
Acenaphthene	0.025	0.017
Acenaphthylene	0.0091 J	<0.0039
Anthracene	0.087	0.037
Benzo(a)anthracene	0.25	0.074
Benzo(a)pyrene	0.3	0.087
Benzo(b)fluoranthene	0.38	0.082
Benzo(g,h,i)perylene	0.22	0.059
Benzo(k)fluoranthene	0.27	0.073
Chrysene	[0.30]	0.080
Dibenz(a,h)anthracene	0.062	0.016
Fluoranthene	0.65	0.22
Fluorene	0.016	0.013 J
Indeno(1,2,3-cd)pyrene	0.19	0.048
Naphthalene	0.060	<0.010
Phenanthrene	0.24	0.089
Pyrene	0.41	0.17

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
PAHs mg/kg		
1-Methylnaphthalene	0.0377 J	<0.0049
Acenaphthene	0.185	<0.0047
Acenaphthylene	0.0340 J	<0.0040
Anthracene	0.322	<0.0069
Benzo(a)anthracene	0.729	0.0056 J
Benzo(a)pyrene	[0.744]	<0.0030
Benzo(b)fluoranthene	[0.905]	<0.0034
Benzo(g,h,i)perylene	0.420	<0.0025
Benzo(k)fluoranthene	0.425	<0.0030
Chrysene	[0.827]	<0.0041
Dibenz(a,h)anthracene	0.111	<0.0027
Fluoranthene	1.63	0.0056 J
Fluorene	0.0282 J	<0.0050
Indeno(1,2,3-cd)pyrene	0.369	<0.0027
Phenanthrene	0.576	<0.0141
Pyrene	1.22	0.0058 J

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
No detections	

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
PAHs mg/kg		
1-Methylnaphthalene	0.0149 J	<0.0048
2-Methylnaphthalene	0.0215	<0.0059
Acenaphthene	0.0045 J	<0.0046
Acenaphthylene	0.0046 J	<0.0039
Anthracene	0.0192 J	<0.0068
Benzo(a)anthracene	0.0827	<0.0037
Benzo(a)pyrene	0.0846	<0.0030
Benzo(b)fluoranthene	0.166	<0.0033
Benzo(g,h,i)perylene	0.0577	<0.0024
Benzo(k)fluoranthene	0.0462	<0.0030
Chrysene	0.133	<0.0040
Dibenz(a,h)anthracene	0.0208	<0.0026
Fluoranthene	0.171	<0.0062
Indeno(1,2,3-cd)pyrene	0.0443	<0.0026
Naphthalene	0.0297 J	<0.0100
Phenanthrene	0.0799	<0.0138
Pyrene	0.122	<0.0053

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
PAHs mg/kg		
Acenaphthene	<0.0041	0.0053 J
Acenaphthylene	<0.0035	<0.0037
Anthracene	<0.0060	0.0121 J
Benzo(a)anthracene	0.0198	0.0198
Benzo(a)pyrene	0.0225	0.0151
Benzo(b)fluoranthene	0.0301	0.0248
Benzo(g,h,i)perylene	0.0134	0.0070 J
Benzo(k)fluoranthene	0.0138	0.0098
Chrysene	0.0202	0.0269
Dibenz(a,h)anthracene	0.0033 J	<0.0025
Fluoranthene	0.0376	0.0781
Fluorene	<0.0044	0.0054 J
Indeno(1,2,3-cd)pyrene	0.0102	0.0059 J
Phenanthrene	<0.0123	0.0508
Pyrene	0.0318	0.0519

Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
No detections	

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
PAHs mg/kg		
1-Methylnaphthalene	0.323	9.27
2-Methylnaphthalene	0.564	16.9
Acenaphthene	0.538	0.884
Acenaphthylene	0.0908 J	0.207 J
Anthracene	1.40	0.384 J
Benzo(a)anthracene	2.09	<0.0939
Benzo(a)pyrene	[2.19]	<0.0744
Benzo(b)fluoranthene	[2.74]	<0.0836
Benzo(g,h,i)perylene	1.56	<0.0602
Benzo(k)fluoranthene	1.23	<0.0743
Chrysene	[2.41]	<0.0999
Dibenz(a,h)anthracene	0.306	<0.0662
Fluoranthene	6.77	<0.154
Fluorene	0.750	0.995
Indeno(1,2,3-cd)pyrene	1.19	<0.0651
Naphthalene	[1.09]	[3.51]
Phenanthrene	4.11	3.26
Pyrene	5.08	0.175 J

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
Naphthalene	0.0111 J

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
PAHs mg/kg		
No detections		

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
Benzo(a)pyrene	0.0042 J
Benzo(b)fluoranthene	0.0045 J
Benzo(g,h,i)perylene	0.0045 J
Benzo(k)fluoranthene	0.0049 J
Chrysene	0.0067 J
Fluoranthene	0.0071 J
Pyrene	0.0064 J

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
PAHs mg/kg	
Benzo(a)anthracene	0.0204
Benzo(a)pyrene	0.0225
Benzo(b)fluoranthene	0.0336
Benzo(g,h,i)perylene	0.0129
Benzo(k)fluoranthene	0.0140
Chrysene	0.0277
Dibenz(a,h)anthracene	0.0037 J
Fluoranthene	0.0535
Indeno(1,2,3-cd)pyrene	0.0102
Pyrene	0.0433

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
PAHs mg/kg	
1-Methylnaphthalene	0.0137 J
2-Methylnaphthalene	0.0209
Acenaphthene	0.0127 J
Acenaphthylene	0.0054 J
Anthracene	0.0449
Benzo(a)anthracene	0.136
Benzo(a)pyrene	0.142
Benzo(b)fluoranthene	0.234
Benzo(g,h,i)perylene	0.0612
Benzo(k)fluoranthene	0.0774
Chrysene	[0.173]
Dibenz(a,h)anthracene	0.0159
Fluoranthene	0.360
Fluorene	0.0113 J
Indeno(1,2,3-cd)pyrene	0.0412
Phenanthrene	0.212
Pyrene	0.271

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
PAHs mg/kg	
Anthracene	0.0079 J
Benzo(a)anthracene	0.0261
Benzo(a)pyrene	0.0265
Benzo(b)fluoranthene	0.0414
Benzo(g,h,i)perylene	0.0105
Benzo(k)fluoranthene	0.0146
Chrysene	0.0341
Dibenz(a,h)anthracene	0.0028 J
Fluoranthene	0.0609
Indeno(1,2,3-cd)pyrene	0.0074 J
Phenanthrene	0.0326 J
Pyrene	0.0469

LEGEND

EXCEEDANCE OF DIRECT CONTACT INDUSTRIAL, NON-INDUSTRICAL AND SOIL TO GROUNDWATER RCLS

EXCEEDANCE OF DIRECT CONTACT NON-INDUSTRICAL AND SOIL TO GROUNDWATER RCLS

B-1 SOIL BORINGS WHERE SAMPLES WERE COLLECTED. BORINGS WHERE SAMPLES WERE NOT COLLECTED ARE NOT SHOWN.

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

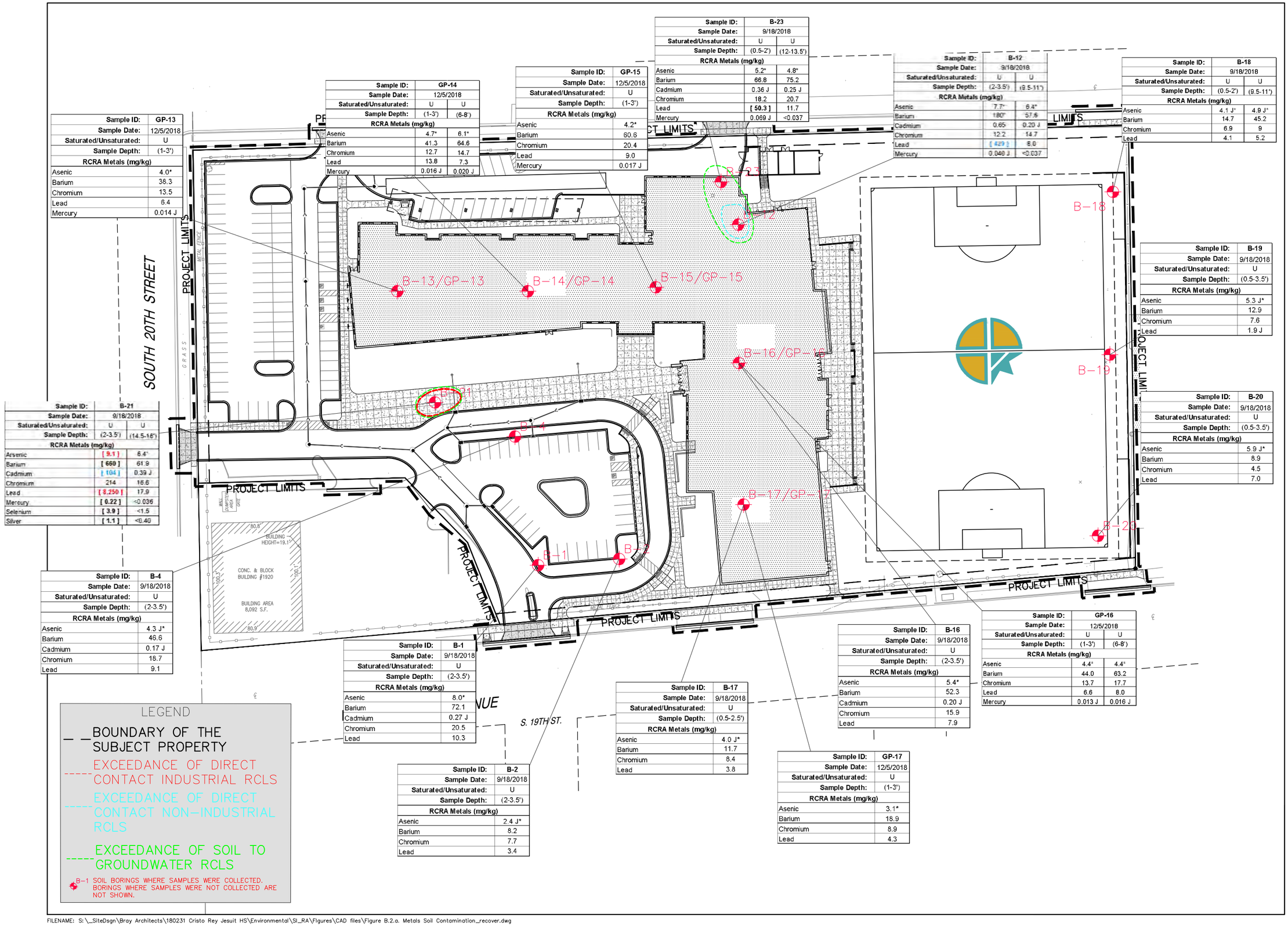
SEAL:

SHEET:
SITE INVESTIGATION: PAH SOIL CONTAMINATION

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	07/21/2022

SHEET NUMBER:
B.2.a.i

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Figures\CAD files\Figure B.2.a. PAH Soil Contamination.dwg



Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Asenic	4.0*
Barium	38.3
Chromium	13.5
Lead	6.4
Mercury	0.014 J

Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
RCRA Metals (mg/kg)		
Asenic	4.7*	6.1*
Barium	41.3	64.6
Chromium	12.7	14.7
Lead	13.8	7.3
Mercury	0.016 J	0.020 J

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Asenic	4.2*
Barium	60.6
Chromium	20.4
Lead	9.0
Mercury	0.017 J

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
RCRA Metals (mg/kg)		
Asenic	5.2*	4.8*
Barium	66.8	75.2
Cadmium	0.36 J	0.25 J
Chromium	18.2	20.7
Lead	[50.3]	11.7
Mercury	0.069 J	<0.037

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
RCRA Metals (mg/kg)		
Asenic	7.7*	6.4*
Barium	180*	57.6
Cadmium	0.65	0.20 J
Chromium	12.2	14.7
Lead	[429]	8.0
Mercury	0.040 J	<0.037

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
RCRA Metals (mg/kg)		
Asenic	4.1 J*	4.9 J*
Barium	14.7	45.2
Chromium	6.9	9
Lead	4.1	5.2

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
RCRA Metals (mg/kg)	
Asenic	5.3 J*
Barium	12.9
Chromium	7.6
Lead	1.9 J

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
RCRA Metals (mg/kg)	
Asenic	5.9 J*
Barium	8.9
Chromium	4.5
Lead	7.0

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
RCRA Metals (mg/kg)		
Arsenic	[9.1]	6.4*
Barium	[660]	61.9
Cadmium	[104]	0.39 J
Chromium	214	16.6
Lead	[3,250]	17.9
Mercury	[0.22]	<0.036
Selenium	[3.9]	<1.5
Silver	[1.1]	<0.40

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Asenic	4.3 J*
Barium	46.6
Cadmium	0.17 J
Chromium	18.7
Lead	9.1

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Asenic	8.0*
Barium	72.1
Cadmium	0.27 J
Chromium	20.5
Lead	10.3

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Asenic	2.4 J*
Barium	8.2
Chromium	7.7
Lead	3.4

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
RCRA Metals (mg/kg)	
Asenic	4.0 J*
Barium	11.7
Chromium	8.4
Lead	3.8

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Asenic	5.4*
Barium	52.3
Cadmium	0.20 J
Chromium	15.9
Lead	7.9

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
RCRA Metals (mg/kg)		
Asenic	4.4*	4.4*
Barium	44.0	63.2
Chromium	13.7	17.7
Lead	6.6	8.0
Mercury	0.013 J	0.016 J

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Asenic	3.1*
Barium	18.9
Chromium	8.9
Lead	4.3

LEGEND

BOUNDARY OF THE SUBJECT PROPERTY

EXCEEDANCE OF DIRECT CONTACT INDUSTRIAL RCLS

EXCEEDANCE OF DIRECT CONTACT NON-INDUSTRIAL RCLS

EXCEEDANCE OF SOIL TO GROUNDWATER RCLS

B-1 SOIL BORINGS WHERE SAMPLES WERE COLLECTED. BORINGS WHERE SAMPLES WERE NOT COLLECTED ARE NOT SHOWN.

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
SITE INVESTIGATION: METALS SOIL CONTAMINATION

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	07/21/2022

SHEET NUMBER:
B.2.a.ii

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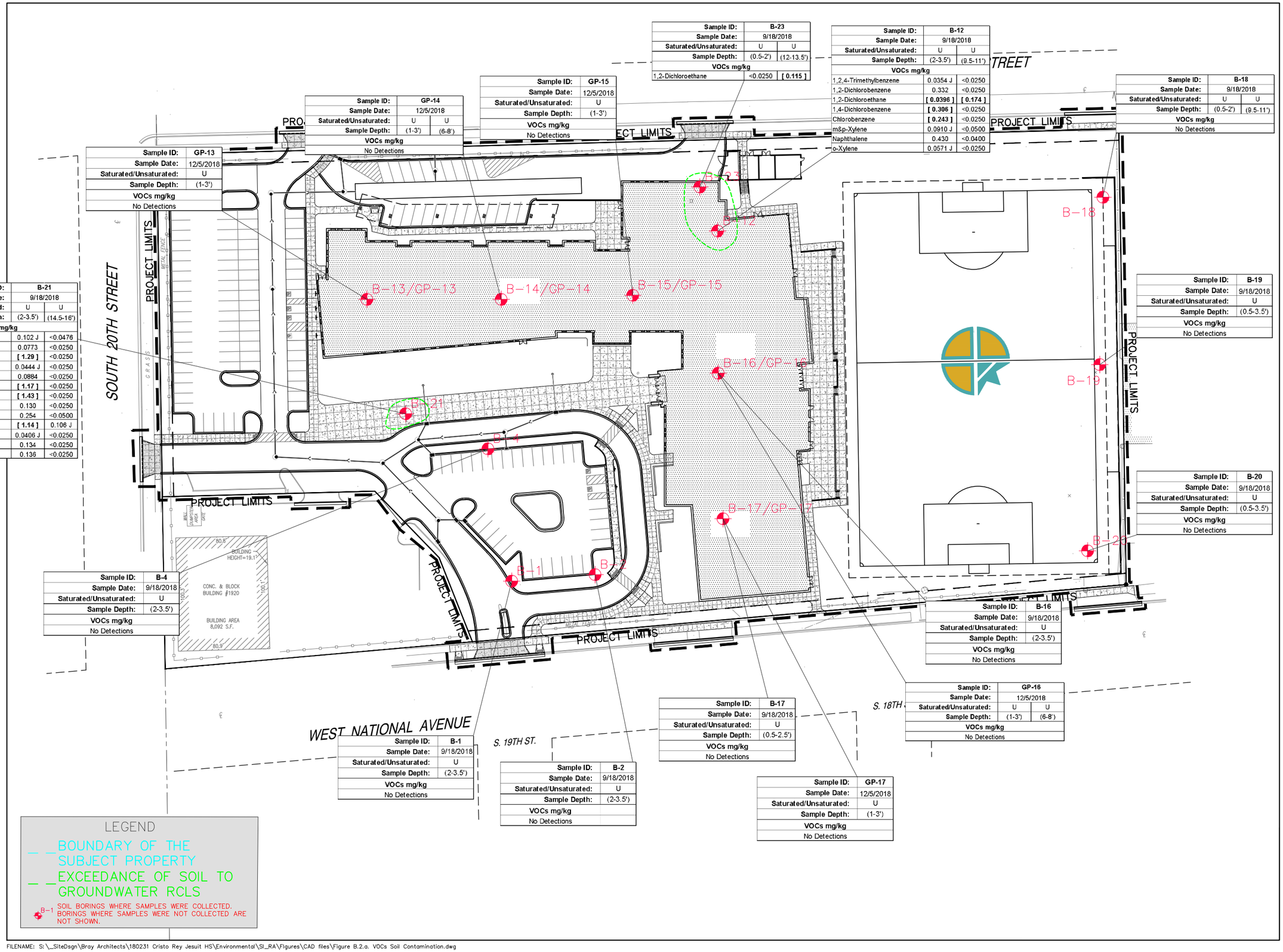

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
VOCs mg/kg		
1,2,4-Trichlorobenzene	0.102 J	<0.0476
1,2,4-Trimethylbenzene	0.0773	<0.0250
1,2-Dichlorobenzene	[1.29]	<0.0250
1,3,5-Trimethylbenzene	0.0444 J	<0.0250
1,3-Dichlorobenzene	0.0884	<0.0250
1,4-Dichlorobenzene	[1.17]	<0.0250
Chlorobenzene	[1.43]	<0.0250
Ethylbenzene	0.130	<0.0250
m&p-Xylene	0.254	<0.0500
Naphthalene	[1.14]	0.106 J
n-Butylbenzene	0.0406 J	<0.0250
o-Xylene	0.134	<0.0250
Toluene	0.136	<0.0250

Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
VOCs mg/kg		
No Detections		

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
VOCs mg/kg		
1,2-Dichloroethane	<0.0250	[0.115]

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
VOCs mg/kg		
1,2,4-Trimethylbenzene	0.0354 J	<0.0250
1,2-Dichlorobenzene	0.332	<0.0250
1,2-Dichloroethane	[0.0396]	[0.174]
1,4-Dichlorobenzene	[0.306]	<0.0250
Chlorobenzene	[0.243]	<0.0250
m&p-Xylene	0.0910 J	<0.0500
Naphthalene	0.430	<0.0400
o-Xylene	0.0571 J	<0.0250

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
VOCs mg/kg		
No Detections		

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
VOCs mg/kg		
No Detections		

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
No Detections	

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
VOCs mg/kg	
No Detections	

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

LEGEND

BOUNDARY OF THE SUBJECT PROPERTY

EXCEEDANCE OF SOIL TO GROUNDWATER RCLS

B-1 SOIL BORINGS WHERE SAMPLES WERE COLLECTED. BORINGS WHERE SAMPLES WERE NOT COLLECTED ARE NOT SHOWN.

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI
53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
SITE INVESTIGATION: VOC SOIL CONTAMINATION

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	07/21/2022

SHEET NUMBER:
B.2.a.iii

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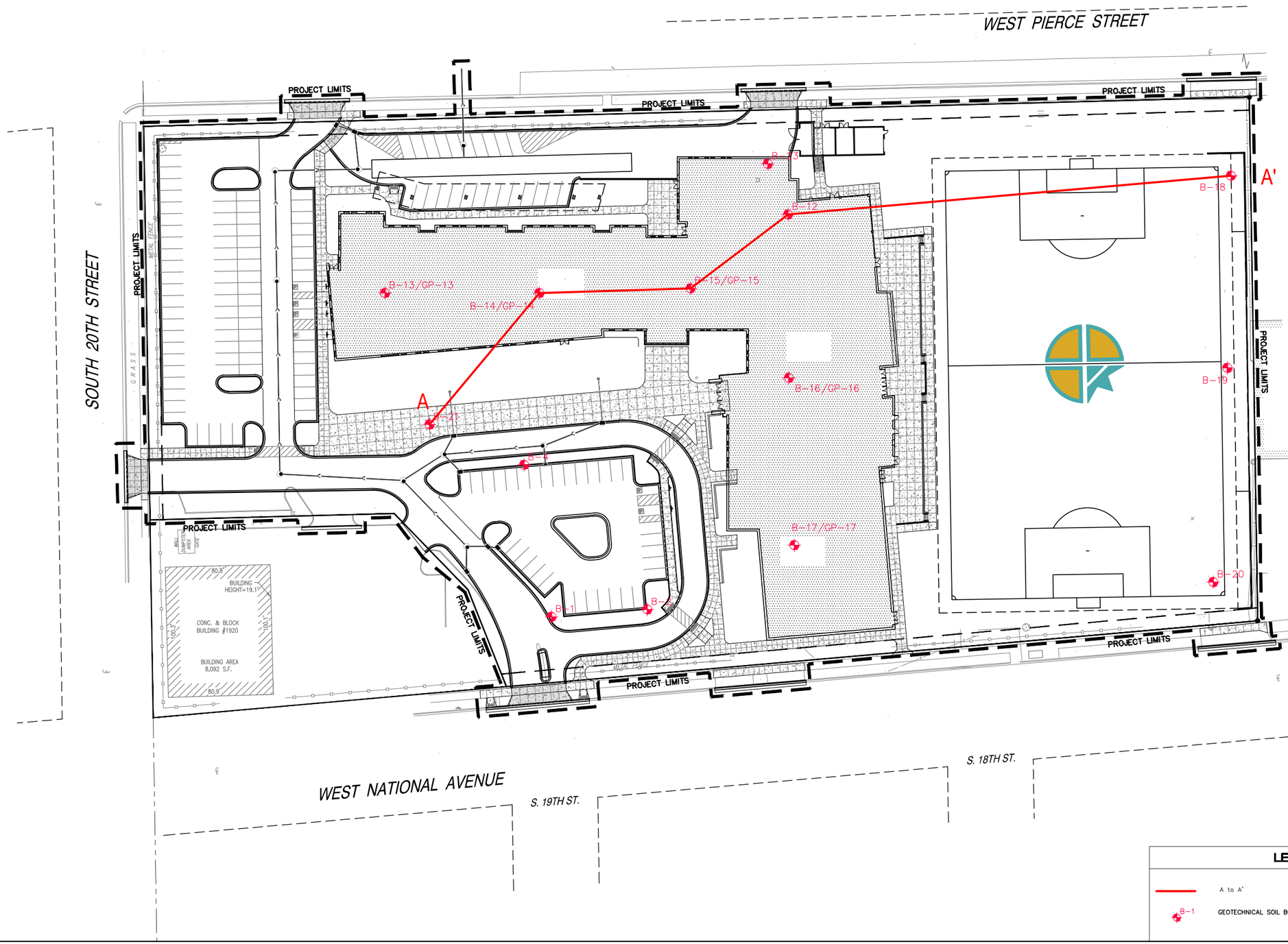


LEGEND

- A to A'
- B-1 GEOTECHNICAL SOIL BORING LOCATIONS

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

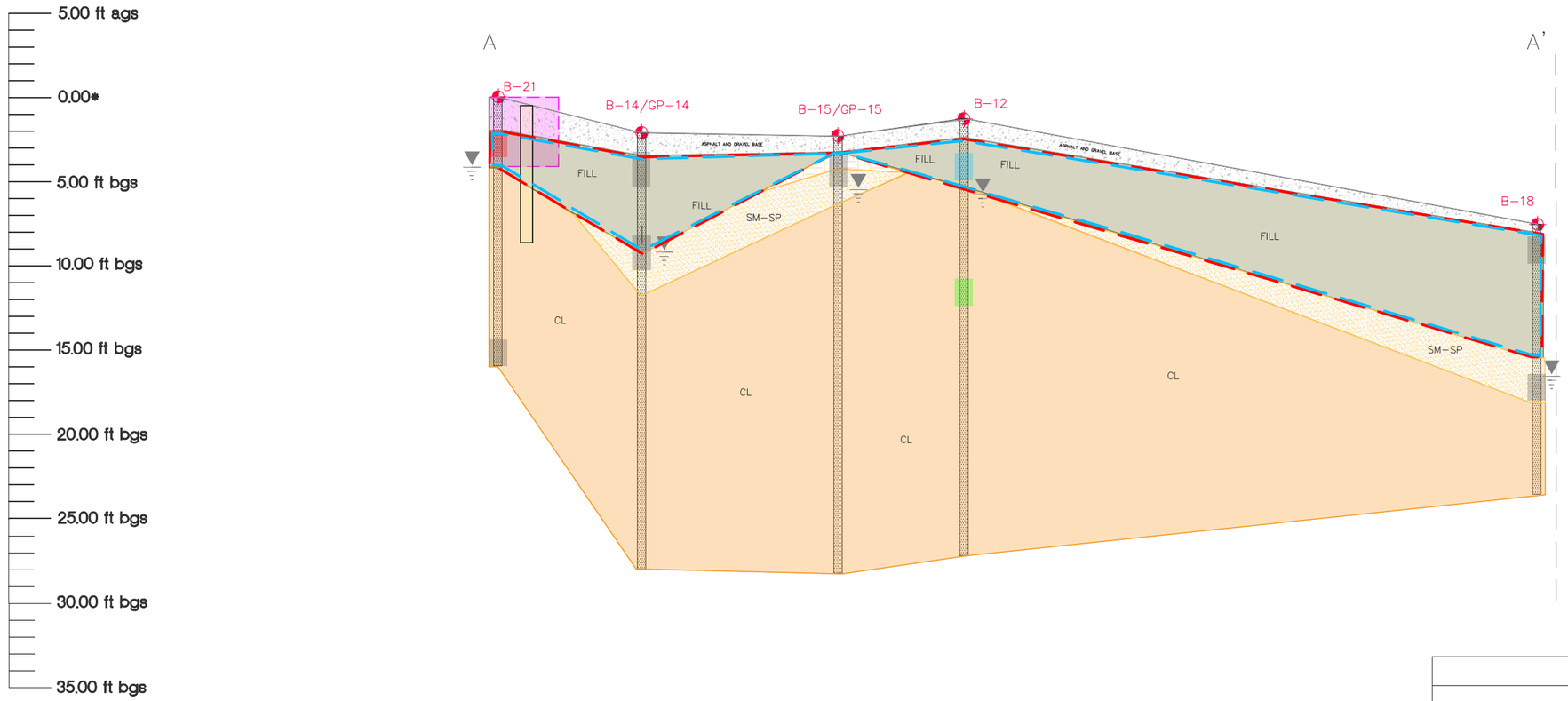
SEAL:

SHEET:
GEOLOGIC CROSS-SECTION OVERVIEW

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\Figures\Cross-Section Plan View.dwg



Parameter	Units	Direct Contact Industrial RCLs	Direct Contact Non-Industrial	to Groundwater Pathway RCLs	Background Threshold Value	B-12	GP-14	GP-14	GP-15	B-18	B-18	B-21	B-21
					Soil Type:	GW	ML	ML	CL	CL-ML	GW	GW	SW
					Saturated/Unsaturated:	U	U	U	U	U	U	U	U
					Sample Depth:	(9.5-11)	(1-3)	(6-8)	(1-3)	(.5-2)	(9.5-11)	(2-3.5)	(14.5-16)
Polynuclear Aromatic Hydrocarbons (PAHs)													
Benzo(a)anthracene	mg/kg	20.8	1.14			<0.0037	0.25	0.074	<0.0038	0.0198	0.0198	2.09	<0.0939
Benzo(a)pyrene	mg/kg	2.11	0.115	0.47		<0.0030	0.30	0.087	<0.0030	0.0225	0.0151	[2.19]	<0.0744
Benzo(b)fluoranthene	mg/kg	21.1	1.15	0.4793		<0.0033	0.38	0.082	<0.0034	0.0301	0.0248	[2.74]	<0.0836
Chrysene	mg/kg	2,110	115	0.1446		<0.0040	[0.30]	0.080	<0.0040	0.0202	0.0269	[2.41]	<0.0999
Dibenz(a,h)anthracene	mg/kg	2.11	0.115			<0.0026	0.062	0.016	<0.0027	0.0033 J	<0.0025	0.306	<0.0662
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15			<0.0026	0.19	0.048	<0.0026	0.0102	0.0059 J	1.19	<0.0651
Naphthalene	mg/kg	26	5.2	0.66		<0.0100	0.060	<0.010	<0.010	<0.0089	<0.0094	[1.09]	[3.51]
RCRA Metals													
Arsenic	mg/kg	3.0	0.677	0.5484	8	6.4*	4.7 *	6.1 *	4.2 *	4.1 J*	4.9 J*	[9.1]	6.4 *
Barium	mg/kg	100,000	15,300	164.8	364	57.6	41.3	64.6	60.6	14.7	45.2	[660]	61.9
Cadmium	mg/kg	985	71.1	0.752	1	0.20 J	<0.15	<0.15	<0.15	<0.27	<0.27	[104]	0.39 J
Lead	mg/kg	800	400	27	52	8.0	13.8	7.3	9.0	4.1	5.2	[8,250]	17.9
Mercury	mg/kg	3.13	3.13	0.208		<0.037	0.016 J	0.020 J	0.017 J	<0.034	<0.039	[0.22]	<0.036
Selenium	mg/kg	5,840	391	0.52		<1.5	<1.5	<1.5	<1.5	<2.7	<2.7	[3.9]	<1.5
Silver	mg/kg	391	5,110	0.85		<0.38	<0.38	<0.39	<0.38	<0.70	<0.71	[1.1]	<0.40
Volatile Organic Compounds (VOCs)													
1,2-Dichlorobenzene	mg/kg	376	376	1.2		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.29]	<0.0250
1,2-Dichloroethane	mg/kg	3	0.652	0.0028		[0.174]	<0.025	<0.025	<0.025	<0.0250	<0.0250	<0.0250	<0.0250
1,4-Dichlorobenzene	mg/kg	16.4	3.7	0.14		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.17]	<0.0250
Chlorobenzene	mg/kg	761	370	0.14		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.43]	<0.0250
Naphthalene	mg/kg	24.1	5.52	0.6582		<0.0400	<0.040	<0.040	<0.040	<0.0400	<0.0400	[1.14]	0.106 J

Notes:
Only analytes that exceed WDNR RCLs are shown in this table
* = Sample exceeds WDNR RCL but is below the background threshold value

FILL MATERIALS / POTENTIAL WDNR INDUSTRIAL SOIL TO GROUNDWATER PATHWAY RCL EXCEEDANCES

FILL MATERIALS / POTENTIAL WDNR INDUSTRIAL DIRECT CONTACT RCL EXCEEDANCES

SOIL CLASSIFICATION

CL = Clay of low plasticity
SM = Silty sand
SP = Poorly grade sand
FILL = Fill soils

LEGEND

EXTENT OF UTILITY EXCAVATION ADJOINING "SOURCE AREA"

AREA OF IMPACTED SOILS DISPOSED OFF-SITE

B-1 GEOTECHNICAL/ENVIRONMENTAL SOIL BORING LOCATIONS

SOIL SAMPLE EXCEEDS WDNR DIRECT CONTACT INDUSTRIAL RCLS

SOIL SAMPLE EXCEEDS WDNR DIRECT CONTACT NON-INDUSTRIAL RCLS

SOIL SAMPLE EXCEEDS WDNR SOIL TO GROUNDWATER PATHWAY RCLS

SOIL SAMPLING ANALYTICAL RESULTS DO NOT EXCEED WDNR RCLS

APPARENT SHALLOW (PERCHED) WATER TABLE IDENTIFIED VIA GEOTECH SOIL BORINGS

* = APPROXIMATE PRE-DEVELOPMENT GROUND SURFACE
ags = ABOVE GROUND SURFACE
bgs = BELOW GROUND SURFACE
ft = FEET

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\Figures\CAD\Cross-Section A-A' Pre Construction.dwg

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

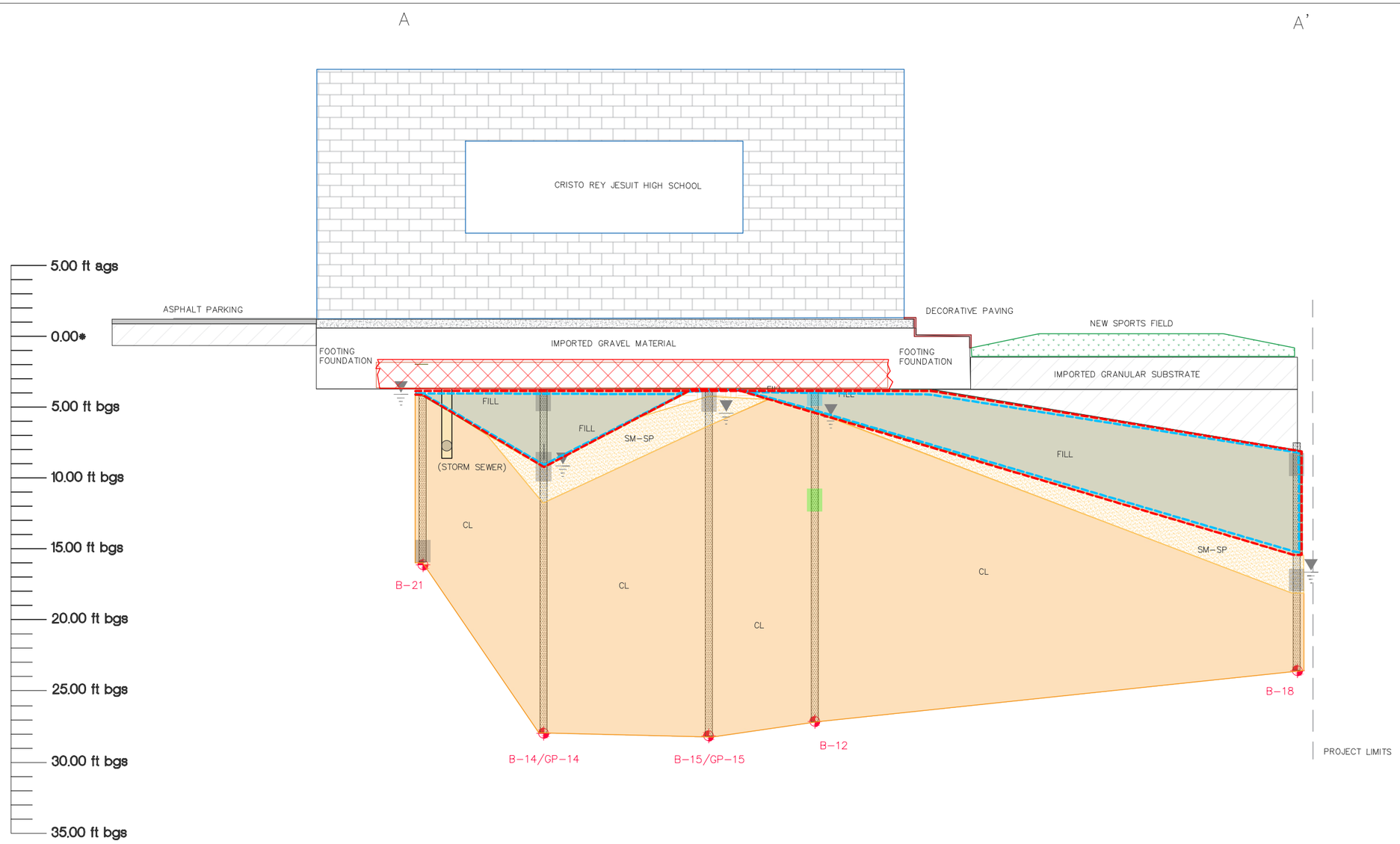
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
PRE-CONSTRCUTION GEOLOGIC CROSS-SECTION A-A'

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.i



Parameter	Units	Direct Contact Industrial RCLs	Direct Contact Non-Industrial	to Groundwater Pathway RCLs	Background Threshold Value	B-12	GP-14	GP-14	GP-15	B-18	B-18	B-21	B-21
					Soil Type:	GW	ML	ML	CL	CL-ML	GW	GW	SW
					Saturated/Unsaturated:	U	U	U	U	U	U	U	U
					Sample Depth:	(9.5-11)	(1-3)	(6-8)	(1-3)	(.5-2)	(9.5-11)	(2-3.5)	(14.5-16)
Polynuclear Aromatic Hydrocarbons (PAHs)													
Benzo(a)anthracene	mg/kg	20.8	1.14			<0.0037	0.25	0.074	<0.0038	0.0198	0.0198	2.09	<0.0939
Benzo(a)pyrene	mg/kg	2.11	0.115	0.47		<0.0030	0.30	0.087	<0.0030	0.0225	0.0151	[2.19]	<0.0744
Benzo(b)fluoranthene	mg/kg	21.1	1.15	0.4793		<0.0033	0.38	0.082	<0.0034	0.0301	0.0248	[2.74]	<0.0836
Chrysene	mg/kg	2,110	115	0.1446		<0.0040	[0.30]	0.080	<0.0040	0.0202	0.0269	[2.41]	<0.0999
Dibenz(a,h)anthracene	mg/kg	2.11	0.115			<0.0026	0.062	0.016	<0.0027	0.0033 J	<0.0025	0.306	<0.0662
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15			<0.0026	0.19	0.048	<0.0026	0.0102	0.0059 J	1.19	<0.0651
Naphthalene	mg/kg	26	5.2	0.66		<0.0100	0.060	<0.010	<0.010	<0.0089	<0.0094	[1.09]	[3.51]
RCRA Metals													
Arsenic	mg/kg	3.0	0.677	0.5484	8	6.4*	4.7 *	6.1 *	4.2 *	4.1 J*	4.9 J*	[9.1]	6.4 *
Barium	mg/kg	100,000	15,300	164.8	364	57.6	41.3	64.6	60.6	14.7	45.2	[660]	61.9
Cadmium	mg/kg	985	71.1	0.752	1	0.20 J	<0.15	<0.15	<0.15	<0.27	<0.27	[104]	0.39 J
Lead	mg/kg	800	400	27	52	8.0	13.8	7.3	9.0	4.1	5.2	[8,250]	17.9
Mercury	mg/kg	3.13	3.13	0.208		<0.037	0.016 J	0.020 J	0.017 J	<0.034	<0.039	[0.22]	<0.036
Selenium	mg/kg	5,840	391	0.52		<1.5	<1.5	<1.5	<1.5	<2.7	<2.7	[3.9]	<1.5
Silver	mg/kg	391	5,110	0.85		<0.38	<0.38	<0.39	<0.38	<0.70	<0.71	[1.1]	<0.40
Volatile Organic Compounds (VOCs)													
1,2-Dichlorobenzene	mg/kg	376	376	1.2		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.29]	<0.0250
1,2-Dichloroethane	mg/kg	3	0.652	0.0028		[0.174]	<0.025	<0.025	<0.025	<0.0250	<0.0250	<0.0250	<0.0250
1,4-Dichlorobenzene	mg/kg	16.4	3.7	0.14		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.17]	<0.0250
Chlorobenzene	mg/kg	761	370	0.14		<0.0250	<0.025	<0.025	<0.025	<0.0250	<0.0250	[1.43]	<0.0250
Naphthalene	mg/kg	24.1	5.52	0.6582		<0.0400	<0.040	<0.040	<0.040	<0.0400	<0.0400	[1.14]	0.106 J

Notes:
Only analytes that exceed WDNR RCLs are shown in this table
* = Sample exceeds WDNR RCL but is below the background threshold value

LOCATION OF RE-DISTRIBUTED SOILS

FILL MATERIALS / POTENTIAL WDNR INDUSTRIAL SOIL TO GROUNDWATER PATHWAY RCL EXCEEDANCES

FILL MATERIALS / POTENTIAL WDNR INDUSTRIAL DIRECT CONTACT RCL EXCEEDANCES

SOIL CLASSIFICATION

CL = Clay of low plasticity
SM = Silty sand
SP = Poorly grade sand
FILL = Fill soils

LEGEND

EXTENT OF UTILITY EXCAVATION ADJOINING "SOURCE AREA"

B-1 GEOTECHNICAL/ENVIRONMENTAL SOIL BORING LOCATIONS

SOIL SAMPLE EXCEEDS WDNR DIRECT CONTACT INDUSTRIAL RCLS

SOIL SAMPLE EXCEEDS WDNR DIRECT CONTACT NON-INDUSTRIAL RCLS

SOIL SAMPLE EXCEEDS WDNR SOIL TO GROUNDWATER PATHWAY RCLS

SOIL SAMPLING ANALYTICAL RESULTS DO NOT EXCEED WDNR RCLS

APPARENT SHALLOW (PERCHED) WATER TABLE IDENTIFIED VIA GEOTECH SOIL BORINGS (PRE-CONSTRUCTION)

* = APPROXIMATE PRE-DEVELOPMENT GROUND SURFACE
ags = ABOVE GROUND SURFACE
bgs = BELOW GROUND SURFACE
ft = FEET

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\Figures\CAD\Cross-Section A-A' Post Construct REV.dwg

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
kapurinc.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

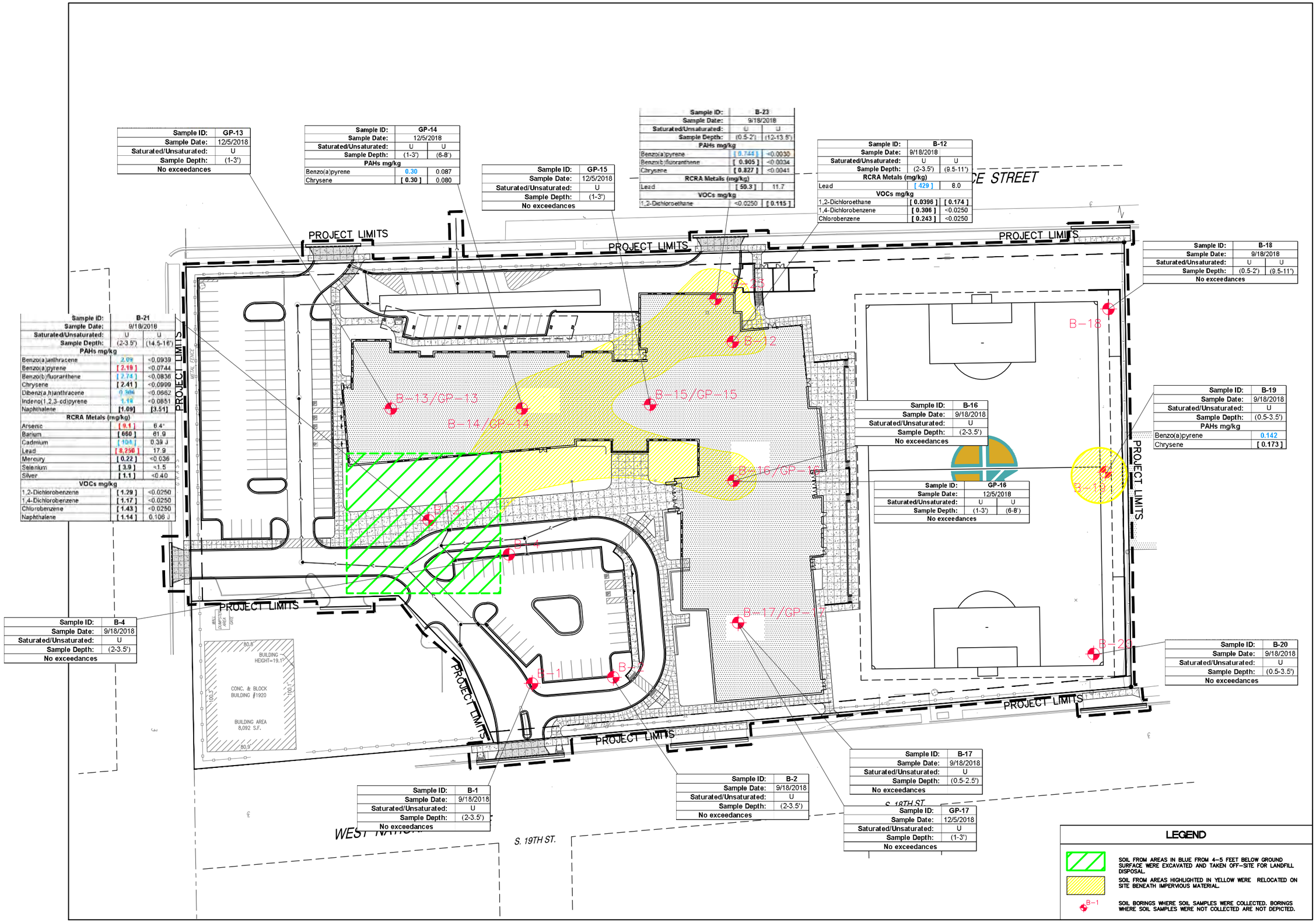
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
POST-CONSTRUCTION GEOLOGIC CROSS-SECTION A-A'

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.ii



Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
No exceedances	

Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
PAHs mg/kg		
Benzo(a)pyrene	0.30	0.087
Chrysene	[0.30]	0.080

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
No exceedances	

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
PAHs mg/kg		
Benzo(a)pyrene	[0.744]	<0.0030
Benzo(b)fluoranthene	[0.905]	<0.0034
Chrysene	[0.827]	<0.0041
RCRA Metals (mg/kg)		
Lead	[50.3]	11.7
VOCs mg/kg		
1,2-Dichloroethane	<0.0250	[0.115]

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
RCRA Metals (mg/kg)		
Lead	[429]	8.0
VOCs mg/kg		
1,2-Dichloroethane	[0.0396]	[0.174]
1,4-Dichlorobenzene	[0.306]	<0.0250
Chlorobenzene	[0.243]	<0.0250

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
No exceedances		

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
PAHs mg/kg		
Benzo(a)anthracene	2.09	<0.0939
Benzo(a)pyrene	[2.19]	<0.0744
Benzo(b)fluoranthene	[2.74]	<0.0836
Chrysene	[2.41]	<0.0999
Dibenz(a,h)anthracene	0.506	<0.0662
Indeno(1,2,3-cd)pyrene	1.18	<0.0851
Naphthalene	[1.09]	[3.51]
RCRA Metals (mg/kg)		
Arsenic	[9.1]	6.4
Barium	[660]	61.9
Cadmium	[10.1]	0.39 J
Lead	[8,250]	17.9
Mercury	[0.22]	<0.036
Selenium	[3.9]	<1.5
Silver	[1.1]	<0.40
VOCs mg/kg		
1,2-Dichlorobenzene	[1.29]	<0.0250
1,4-Dichlorobenzene	[1.17]	<0.0250
Chlorobenzene	[1.43]	<0.0250
Naphthalene	[1.14]	0.106 J

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
No exceedances	

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
PAHs mg/kg	
Benzo(a)pyrene	0.142
Chrysene	[0.173]

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
No exceedances		

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
No exceedances	

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
No exceedances	

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
No exceedances	

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
No exceedances	

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
No exceedances	

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
No exceedances	

LEGEND

SOIL FROM AREAS IN BLUE FROM 4-5 FEET BELOW GROUND SURFACE WERE EXCAVATED AND TAKEN OFF-SITE FOR LANDFILL DISPOSAL.

SOIL FROM AREAS HIGHLIGHTED IN YELLOW WERE RELOCATED ON SITE BENEATH IMPERVIOUS MATERIAL.

B-1 SOIL BORINGS WHERE SOIL SAMPLES WERE COLLECTED. BORINGS WHERE SOIL SAMPLES WERE NOT COLLECTED ARE NOT DEPICTED.

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\Figures\CAD\SOIL EXCAVATION MAP_recover.dwg

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

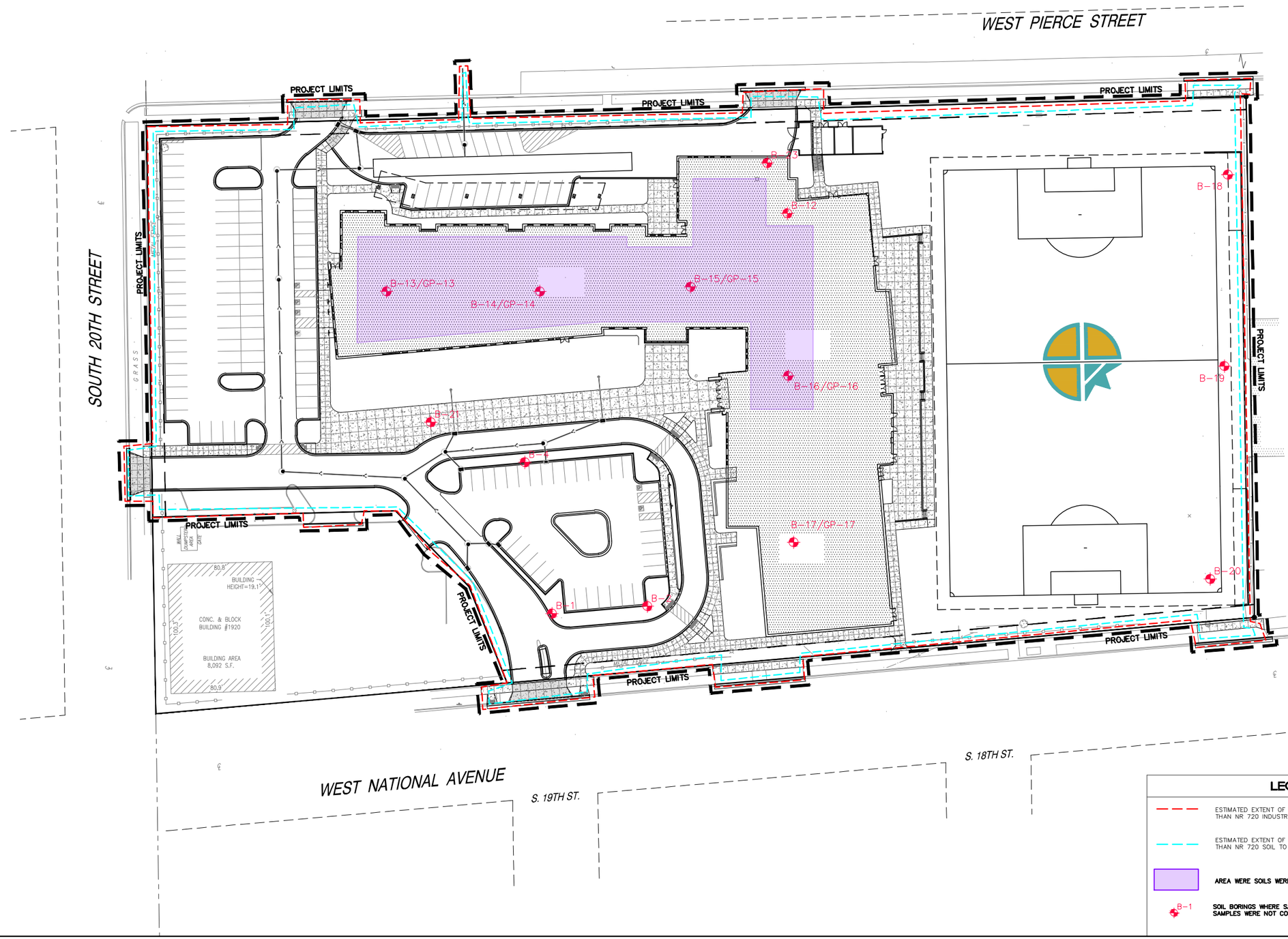
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
SOIL EXCAVATION MAP

PROJECT MANAGER:	gz
PROJECT NUMBER:	180231.01
DATE:	11/1/2022

SHEET NUMBER:
B.4



LEGEND

- ESTIMATED EXTENT OF POTENTIAL SOIL CONTAMINATION GREATER THAN NR 720 INDUSTRIAL DIRECT CONTACT RCLS
- ESTIMATED EXTENT OF POTENTIAL SOIL CONTAMINATION GREATER THAN NR 720 SOIL TO GROUNDWATER PATHWAY RCLS
- AREA WERE SOILS WERE RELOCATED TO ON SITE.
- B-1 SOIL BORINGS WHERE SAMPLES WERE COLLECTED. BORINGS WERE SAMPLES WERE NOT COLLECTED ARE NOT SHOWN.

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6688 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
RESIDUAL SOIL CONTAMINATION MAP

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	11/1/22022

SHEET NUMBER:
B.5

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\2-8-23 Documents\fIGURES\CAD\residual soil contamination.dwg

TABLES

kapur

Table A.1: Soil Analytical Results
1818 West National Ave
Milwaukee, Wisconsin

Parameter	Units	ch. NR 720 Direct Contact Industrial RCLs	ch. NR 720 Direct Contact Non-Industrial RCLs	ch. NR 720 Soil to Groundwater Pathway RCLs	EPA TCLP Limits	Background Threshold Value	Sample Date: 09/18/2018											
							B-1	B-2	B-4	B-12	B-12 TCLP	B-12	B-16	B-17	B-18	B-18	B-19	B-20
						Soil Type:	GW	SW-SM	ML	ML	ML	GW	SW-SM	GW/CL	CL-ML	GW	ML	ML
						Saturated/Unsaturated:	U	U	U	U	U	U	U	U	U	U	U	U
						Sample Depth:	(2-3.5)	(2-3.5)	(2-3.5)	(2-3.5)	(2-3.5)	(9.5-11)	(2-3.5)	(.5-2.5)	(.5-2)	(9.5-11)	(.5-3.5)	(.5-3.5)
Polynuclear Aromatic Hydrocarbons (PAHs)																		
1-Methylnaphthalene	mg/kg	72.7	17.6				<0.0048	<0.0043	<0.0048	0.0149 J		<0.0048	<0.0048	<0.0045	<0.0043	<0.0045	0.0137 J	<0.0043
2-Methylnaphthalene	mg/kg	3,010	239.0				<0.0060	<0.0053	<0.0060	0.0215		<0.0059	<0.0059	<0.0055	<0.0053	<0.0056	0.0209	<0.0053
Acenaphthene	mg/kg	45,200	3,590				<0.0046	<0.0041	<0.0047	0.0045 J		<0.0046	<0.0046	<0.0043	<0.0041	0.0053 J	0.0127 J	<0.0041
Acenaphthylene	mg/kg						<0.0039	<0.0035	<0.0040	0.0048 J		<0.0039	<0.0039	<0.0037	<0.0035	<0.0037	0.0054 J	<0.0035
Anthracene	mg/kg	100,000	17,900	196.9492			<0.0068	<0.0061	<0.0069	0.0192 J		<0.0068	<0.0067	<0.0063	<0.0060	0.0121 J	0.0449	0.0079 J
Benzo(a)anthracene	mg/kg	20.8	1.14				<0.0038	<0.0034	<0.0038	0.0827		<0.0037	<0.0037	0.0204	0.0198	0.0198	0.136	0.0261
Benzo(a)pyrene	mg/kg	2.11	0.115	0.47			<0.0030	<0.0027	<0.0030	0.0846		<0.0030	<0.0030	0.0225	0.0225	0.0151	0.142	0.0265
Benzo(b)fluoranthene	mg/kg	21.1	1.15	0.4793			<0.0034	<0.0030	<0.0034	0.166		<0.0033	<0.0033	0.0336	0.0301	0.0248	0.234	0.0414
Benzo(g,h,i)perylene	mg/kg						<0.0024	<0.0022	<0.0024	0.0577		<0.0024	<0.0024	0.0129	0.0134	0.0070 J	0.0612	0.0105
Benzo(k)fluoranthene	mg/kg	211	11.5				<0.0030	<0.0027	<0.0030	0.0462		<0.0030	<0.0030	0.0140	0.0138	0.0098	0.0774	0.0146
Chrysene	mg/kg	2,110	115	0.1446			<0.0040	<0.0036	<0.0040	0.133		<0.0040	<0.0040	0.0277	0.0202	0.0269	**[0.173]**	0.0341
Dibenz(a,h)anthracene	mg/kg	2.11	0.115				<0.0027	<0.0024	<0.0027	0.0208		<0.0026	<0.0026	0.0037 J	0.0033 J	<0.0025	0.0159	0.0028 J
Fluoranthene	mg/kg	30,100	2,390	88.8778			<0.0062	<0.0055	<0.0063	0.171		<0.0062	<0.0062	0.0535	0.0376	0.0781	0.360	0.0609
Fluorene	mg/kg	30,100	2,390	14.8299			<0.0049	<0.0044	<0.0050	<0.0047		<0.0049	<0.0049	<0.0046	<0.0044	0.0054 J	0.0113 J	<0.0044
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15				<0.0026	<0.0023	<0.0026	0.0443		<0.0026	<0.0026	0.0102	0.0102	0.0059 J	0.0412	0.0074 J
Naphthalene	mg/kg	26	5.2	0.66			<0.0100	<0.0090	0.0111 J	0.0297 J		<0.0100	<0.0099	<0.0093	<0.0089	<0.0094	<0.0096	<0.0090
Phenanthrene	mg/kg						<0.0139	<0.0124	<0.0140	0.0799		<0.0138	<0.0138	<0.0129	<0.0123	0.0508	0.212	0.0326 J
Pyrene	mg/kg	22,600	1,790	54.5455			<0.0054	<0.0048	<0.0054	0.122		<0.0053	<0.0053	0.0433	0.0318	0.0519	0.271	0.0469
RCRA Metals																		
Arsenic	mg/kg	3.0	0.677	0.5484	5	8	8.0*	2.4 J*	4.3 J*	7.7*		6.4*	5.4*	4.0 J*	4.1 J*	4.9 J*	5.3 J*	5.9 J*
Barium	mg/kg	100,000	15,300	164.8	100	364	72.1	8.2	46.6	180*		57.6	52.3	11.7	14.7	45.2	12.9	8.9
Cadmium	mg/kg	985	71.1	0.752	1	1	0.27 J	<0.14	0.17 J	0.65		0.20 J	0.20 J	<0.14	<0.27	<0.27	<0.29	<0.28
Chromium	mg/kg			360,000	5	44	20.5	7.7	18.7	12.2		14.7	15.9	8.4	6.9	9.0	7.6	4.5
Lead	mg/kg	800	400	27	5	52	10.3	3.4	9.1	[429]	2.9	8.0	7.9	3.8	4.1	5.2	1.9 J	7.0
Mercury	mg/kg	3.13	3.13	0.208	0.2		<0.037	<0.036	<0.038	0.040 J		<0.037	<0.038	<0.035	<0.034	<0.039	<0.039	<0.034
Selenium	mg/kg	5,840	391	0.52	1		<1.6	<1.4	<1.5	<1.5		<1.5	<1.4	<1.4	<2.7	<2.7	<2.8	<2.7
Silver	mg/kg	391	5,110	0.85	5		<0.41	<0.36	<0.40	<0.39		<0.38	<0.37	<0.37	<0.70	<0.71	<0.74	<0.72
Volatile Organic Compounds (VOCs)																		
1,2,4-Trichlorobenzene	mg/kg	113	24	0.41			<0.0476	<0.0476	<0.0476	<0.0476		<0.0476	<0.0476	<0.0476	<0.0476	<0.0476	<0.0476	<0.0476
1,2,4-Trimethylbenzene	mg/kg	219	219	1.382			<0.0250	<0.0250	<0.0250	0.0354 J		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,2-Dichlorobenzene	mg/kg	376	376	1.2			<0.0250	<0.0250	<0.0250	0.332		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,2-Dichloroethane	mg/kg	3	0.652	0.0028			<0.0250	<0.0250	<0.0250	**[0.0396]**		**[0.174]**	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,3,5-Trimethylbenzene	mg/kg	182	182	1.382			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,3-Dichlorobenzene	mg/kg	297	297	1.2			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,4-Dichlorobenzene	mg/kg	16.4	3.7	0.14			<0.0250	<0.0250	<0.0250	**[0.306]**		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Chlorobenzene	mg/kg	761	370	0.14			<0.0250	<0.0250	<0.0250	**[0.243]**		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Ethylbenzene	mg/kg	35.4	8.02	1.57			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
m&p-Xylene	mg/kg	260	260	3.96			<0.0500	<0.0500	<0.0500	0.0910 J		<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Methylene Chloride	mg/kg	1,070	61	0.0026			0.0703**	0.0664**	0.0658**	0.0568**		0.066**	0.0563**	0.0675**	0.0516**	0.0638**	0.0573**	0.044**
Naphthalene	mg/kg	24.1	5.52	0.6582			<0.0400	<0.0400	<0.0400	0.430		<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
n-Butylbenzene	mg/kg	108	108				<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
o-Xylene	mg/kg	260	260	3.96			<0.0250	<0.0250	<0.0250	0.0571 J		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Toluene	mg/kg	818	818	1.1072			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Percent Moisture	%						16.2	6.1	16.7	12.1		15.5	15.3	9.9	5.5	10.3	12.5	6.1
PID	ppmv						0.5	0.7	0.6	0.9		1	0.7	0.8	0.4	0.8	1.2	0.7

Notes:

Only analytes with a detection in at least one sample are shown

(2-3) = sample depth in feet below ground surface

RCL = Residual Contaminant Level

PID - Photoionization Detector

ppmv = parts per million by volume in air

mg/kg = milligrams per kilogram

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are **bold red**

Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are **bold blue**

Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are in **[Brackets]**

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

* = Above industrial standard but equal or below background threshold value

**= concentration is attributed to background laboratory contamination

Soil Classification:

GW = Well graded gravel, fine to coarse

SW = Well graded sand, fine to coarse

SM = Silty sand

ML = Silt

CL = Clay of low plasticity

kapur

Table A.1: Soil Analytical Results
1818 West National Ave
Milwaukee, Wisconsin

Parameter	Units	ch. NR 720 Direct Contact Industrial RCLs	ch. NR 720 Direct Contact Non-Industrial RCLs	ch. NR 720 Soil to Groundwater Pathway RCLs	EPA TCLP Limits	Background Threshold Value	Sample Date: 09/18/2018					Sample Date: 12/05/2018						
							B-21	B-21 TCLP	B-21	B-23	B-23	GP-13	GP-14	GP-14	GP-15	GP-16	GP-16	GP-17
						Soil Type:	GW	GW	SW	GW/SW	GW	SW	ML	ML	CL	CL	CL	SW
						Saturated/Unsaturated:	U	U	U	U	U	U	U	U	U	U	U	U
						Sample Depth:	(2-3.5)	(2-3.5)	(14.5-16)	(.5-2)	(12-13.5)	(1-3)	(1-3)	(6-8)	(1-3)	(1-3)	(6-8)	(1-3)
Polynuclear Aromatic Hydrocarbons (PAHs)																		
1-Methylnaphthalene	mg/kg	72.7	17.6				0.323		9.27	0.0377 J	<0.0049	<0.0049	0.058	<0.0048	<0.0048	<0.0047	<0.0049	<0.0046
2-Methylnaphthalene	mg/kg	3,010	239.0				0.564		16.9	<0.0223	<0.0061	<0.0061	0.12	<0.0060	<0.0060	<0.0059	<0.0061	<0.0057
Acenaphthene	mg/kg	45,200	3,590				0.538		0.884	0.185	<0.0047	<0.0047	0.025	0.017	<0.0046	<0.0046	<0.0047	<0.0044
Acenaphthylene	mg/kg						0.0908 J		0.207 J	0.0340 J	<0.0040	<0.0040	0.0091 J	<0.0039	<0.0039	<0.0039	<0.0040	<0.0038
Anthracene	mg/kg	100,000	17,900	**196.9492**			1.40		0.384 J	0.322	<0.0069	<0.0070	0.067	0.037	<0.0068	<0.0067	<0.0069	<0.0065
Benzo(a)anthracene	mg/kg	20.8	1.14				2.09		<0.0939	0.729	0.0056 J	<0.0039	0.25	0.074	<0.0038	<0.0037	<0.0039	<0.0036
Benzo(a)pyrene	mg/kg	2.11	0.115	**0.47**			**[2.19]**		<0.0744	**[0.744]**	<0.0030	<0.0031	0.30	0.087	<0.0030	<0.0030	<0.0031	0.0042 J
Benzo(b)fluoranthene	mg/kg	21.1	1.15	**0.4793**			**[2.74]**		<0.0836	**[0.905]**	<0.0034	<0.0035	0.38	0.082	<0.0034	<0.0033	<0.0034	0.0045 J
Benzo(g,h,i)perylene	mg/kg						1.56		<0.0602	0.420	<0.0025	<0.0025	0.22	0.059	<0.0024	<0.0024	<0.0025	0.0045 J
Benzo(k)fluoranthene	mg/kg	211	11.5				1.23		<0.0743	0.425	<0.0030	<0.0031	0.27	0.073	<0.0030	<0.0030	<0.0030	0.0049 J
Chrysene	mg/kg	2,110	115	**0.1446**			**[2.41]**		<0.0999	**[0.827]**	<0.0041	<0.0041	**[0.30]**	0.080	<0.0040	<0.0040	<0.0041	0.0067 J
Dibenz(a,h)anthracene	mg/kg	2.11	0.115				0.306		<0.0662	0.111	<0.0027	<0.0027	0.062	0.016	<0.0027	<0.0026	<0.0027	<0.0025
Fluoranthene	mg/kg	30,100	2,390	**88.8778**			6.77		<0.154	1.63	0.0066 J	<0.0064	0.65	0.22	<0.0062	<0.0061	<0.0063	0.0071 J
Fluorene	mg/kg	30,100	2,390	**14.8299**			0.756		0.996	0.0262 J	<0.0050	<0.0051	0.016	0.013 J	<0.0049	<0.0049	<0.0050	<0.0047
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15				1.19		<0.0651	0.369	<0.0027	<0.0027	0.19	0.048	<0.0026	<0.0026	<0.0027	<0.0025
Naphthalene	mg/kg	26	5.2	**0.66**			**[1.09]**		**[3.51]**	<0.0376	<0.0102	<0.010	0.060	<0.010	<0.010	<0.0099	<0.010	<0.0096
Phenanthrene	mg/kg						4.11		3.26	0.576	<0.0141	<0.014	0.24	0.089	<0.014	<0.014	<0.014	<0.013
Pyrene	mg/kg	22,600	1,790	**54.5455**			5.08		0.175 J	1.22	0.0058 J	<0.0055	0.41	0.17	<0.0054	<0.0053	<0.0055	0.0064 J
RCRA Metals																		
Arsenic	mg/kg	3.0	0.677	**0.5484**	5	**8**	**[9.1]**		6.4 *	5.2 *	4.8 *	4.0 *	4.7 *	6.1 *	4.2 *	4.4 *	4.4 *	3.1 *
Barium	mg/kg	100,000	15,300	**164.8**	100	**364**	**[660]**		61.9	66.8	75.2	38.3	41.3	64.6	60.6	44.0	63.2	18.9
Cadmium	mg/kg	985	71.1	**0.752**	1	**1**	**[104]**	0.28	0.39 J	0.36 J	0.25 J	<0.16	<0.15	<0.15	<0.15	<0.15	<0.16	<0.15
Chromium	mg/kg			**360,000**	5	**44**	214		16.6	18.2	20.7	13.5	12.7	14.7	20.4	13.7	17.7	8.9
Lead	mg/kg	800	400	**27**	5	**52**	**[8,250]**	4.1	17.9	50.3*	11.7	6.4	13.8	7.3	9.0	6.6	8.0	4.3
Mercury	mg/kg	3.13	3.13	**0.208**	0.2		**[0.22]**		<0.036	0.069 J	<0.037	0.014 J	0.016 J	0.020 J	0.017 J	0.013 J	0.016 J	<0.011
Selenium	mg/kg	5,840	391	**0.52**	1		**[3.9]**		<1.5	<1.4	<1.4	<1.6	<1.5	<1.5	<1.5	<1.5	<1.6	<1.5
Silver	mg/kg	391	5,110	**0.85**	5		**[1.1]**		<0.40	<0.37	<0.38	<0.41	<0.38	<0.39	<0.38	<0.39	<0.41	<0.39
Volatile Organic Compounds (VOCs)																		
1,2,4-Trichlorobenzene	mg/kg	113	24	**0.41**			0.102 J		<0.0476	<0.0476	<0.0476	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2,4-Trimethylbenzene	mg/kg	219	219	**1.382**			0.0773		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2-Dichlorobenzene	mg/kg	376	376	**1.2**			**[1.29]**		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2-Dichloroethane	mg/kg	3	0.652	**0.0028**			<0.0250		<0.0250	<0.0250	**[0.115]**	<0.025	<0.025	<0.025	<0.025	<0.025	0.0022	<0.025
1,3,5-Trimethylbenzene	mg/kg	182	182	**1.382**			0.0444 J		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,3-Dichlorobenzene	mg/kg	297	297	**1.2**			0.0884		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,4-Dichlorobenzene	mg/kg	16.4	3.7	**0.14**			**[1.17]**		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chlorobenzene	mg/kg	761	370	**0.14**			**[1.43]**		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	mg/kg	35.4	8.02	**1.57**			0.130		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
m&p-Xylene	mg/kg	260	260	**3.96**			0.254		<0.0500	<0.0500	<0.0500	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	mg/kg	1,070	61	**0.0026**			0.0601**		0.0498**	0.0641**	0.0597**	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Naphthalene	mg/kg	24.1	5.52	**0.6582**			**[1.14]**		0.106 J	<0.0400	<0.0400	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
n-Butylbenzene	mg/kg	108	108				0.0406 J		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
o-Xylene	mg/kg	260	260	**3.96**			0.134		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene	mg/kg	818	818	**1.1072**			0.136		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Percent Moisture	%						13.3		15.5	10.4	17.4	18.1	11.4	16.4	16.4	15.1	17.8	12.4
PID	ppmv						9.4		51.4	1	0.6	0.5	0.5	0.3	0.5	0.4	0.4	0.4

Notes:

Only analytes with a detection in at least one sample are shown

(2-3) = sample depth in feet below ground surface

RCL = Residual Contaminant Level

PID - Photoionization Detector

ppmv = parts per million by volume in air

mg/kg = milligrams per kilogram

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are **bold red**

Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are **bold blue**

Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are in **[Brackets]**

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

* = Above industrial standard but equal or below background threshold value

**= concentration is attributed to background laboratory contamination

Soil Classification:

GW = Well graded gravel, fine to coarse

SW = Well graded sand, fine to coarse

SM = Silty sand

ML = Silt

CL = Clay of low plasticity

APPENDICES

APPENDIX A

WDNR SOIL BORING LOGS

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	GP-13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Matthew Baake Baake Field Services	12/5/2018	12/5/2018	Direct Push

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Asphalt										
			1	SAND (fill)	SW			0.5						Sampled interval (1-3)
			2	SILTY SAND										
			3		SM									Moist
			4											
			5	End of boring @ 5 ft				0.5						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	GP-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Matthew Baake Baake Field Services	12/5/2018	12/5/2018	Direct Push

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	Asphalt										
			1	SILTY SAND, gray				0.5						Sampled interval (1-3)
			2	"3 lens of organics										
			3					0.3						
			4											
			5	"3 lens of organics	SM									
			6					0.3						Moist, sampled interval (6-8)
			7											
			8					0.4						
			9											
			10	End of boring @ 10 ft										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	GP-15

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Matthew Baake Baake Field Services	12/5/2018	12/5/2018	Direct Push

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location: Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				ASPHALT.										
			1 – 2	SANDY CLAY - CLAYEY SAND, reddish brown.	SC-SM			0.5						Sampled interval (1-3)
			3 – 5	CLAYEY SAND, gray.	SC-SM			0.4						Moist
			5	End of boring @ 5 ft										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Jennifer Saucedo (signed)

Firm: Kapur & Associates, Inc.
7711 N. Port Washington Rd Milwaukee, WI 53217
Tel: 414=751-7200
Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	GP-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Matthew Baake Baake Field Services	12/5/2018	7/14/2021	Direct Push

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT.										
			1	CLAYEY SAND, reddish brown, iron mottles.	SP-SC			0.4						Sampled interval (1-3)
			2					3.4						Moist
			3	CLAYEY SAND, gray, iron mottles.				0.4						
			4											
			5											
			6		SP-SC			0.4						Sampled interval (6-8)
			7											
			8					0.4						
			9	CLAYEY SAND, gray.	SP-SC									
			10	End of boring @ 10 ft										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	GP-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Matthew Baake Baake Field Services	7/14/2021	7/14/2021	Direct Push

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location: ☐ N ☐ E; Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample: Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0	ASPHALT.										
			0.5–2.5	SAND, reddish brown.	SW			0.4						
			2.5–5	CLAYEY SAND, gray.	SC-SM			0.3						Moist, sampled interval (1-3)
			5	End of boring @ 5 ft										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Jennifer Simeras (signed)

Firm: Kapur & Associates, Inc.
7711 N. Port Washington Rd Milwaukee, WI 53217
Tel: 414=751-7200
Fax: 414-351-4117

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft										Sampled interval (2-3.5)

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ____° ____' ______"
Long ____° ____' ______"
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Refer to the boring logs by Giles Engineering Associates for Lithology.										
			2											Sampled interval (2-3.5)
			11	End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Jennifer Skwarek	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217 Tel: 414=751-7200 Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-3

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11	End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										Sampled interval (2-3.5)

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-5

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-6

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11	End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer L Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-7

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-8

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-9

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-10

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-11

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1 2 3 4 5 6 7 8 9 10 11	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 11 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer S Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ___° ___' ___"
Long ___° ___' ___"
Local Grid Location ☐ N ☐ E
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Refer to the boring logs by Giles Engineering Associates for Lithology.										
			2											Sampled interval (2-3.5)
			4											
			6											
			8											
			10											Sampled interval (9.5-11)
			12											
			14											
			16											
			18											
			20											
			22											
			24											
			26	End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Jennifer Schwerzer (signed)

Firm: Kapur & Associates, Inc.
7711 N. Port Washington Rd Milwaukee, WI 53217
Tel: 414=751-7200
Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			2 4 6 8 10 12 14 16 18 20 22 24 26	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer L Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			2 4 6 8 10 12 14 16 18 20 22 24 26	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer L Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-15

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			2 4 6 8 10 12 14 16 18 20 22 24 26	Refer to the boring logs by Giles Engineering Associates for Lithology. End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer L Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location: Feet ☐ N ☐ S; Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			2	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (2-3.5)
			4											
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											
			26	End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Jennifer Simeras

Firm: Kapur & Associates, Inc.
7711 N. Port Washington Rd Milwaukee, WI 53217
Tel: 414=751-7200
Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			2	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (0.5-2.5)
			4											
			6											
			8											
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											
			26	End of boring @ 26 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-18

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (0.5-2)
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											Sampled interval (9.5-11)
			11											
			12											
			13											
			14											
			15											
			16	End of boring @ 16 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-19

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (0.5-3.5)
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16	End of boring @ 16 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-20

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (0.5-3.5)
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16	End of boring @ 16 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-21

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ____° ____' ____"
Long ____° ____' ____"
Local Grid Location
Feet ☐ N ☐ S Feet ☐ E ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			0–1	Refer to the boring logs by Giles Engineering Associates for Lithology.										
			2–3.5											Sampled interval (2-3.5)
			14.5–16											Sampled interval (14.5-16)
			16	End of boring @ 16 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Jennifer Schueras

Firm: Kapur & Associates, Inc.
7711 N. Port Washington Rd Milwaukee, WI 53217
Tel: 414=751-7200
Fax: 414-351-4117

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-22

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/17/2018	9/17/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1–16	Refer to the boring logs by Giles Engineering Associates for Lithology.										
				End of boring @ 16 ft.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
Jennifer S. Kucera	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Tel: 414=751-7200 Fax: 414-351-4117

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Cristo Rey Jesuit High School	NA	B-23

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Keith Flowers Giles Engineering Associates	9/18/2018	9/18/2018	

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S / C / N
NW 1/4 of SE 1/4 of Section 31, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			1	Refer to the boring logs by Giles Engineering Associates for Lithology.										Sampled interval (0.5-2)
			2											
			3											
			4											
			5											
			6											
			7											
			8											
			9											
			10											
			11	End of boring @ 16 ft.										
			12											Sampled interval (12-13.5)
			13											
			14											
			15											
			16											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414=751-7200
Jennifer Summers	Kapur & Associates, Inc. 7711 N. Port Washington Rd Milwaukee, WI 53217	Fax: 414-351-4117

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

BORING NO. & LOCATION: 1	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 55.3 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 5" Asphalt Concrete		55								
± 12" Aggregate Base Course			1-SS	4						
Brown and Gray Mottled lean Clay, trace to little fine Sand-Moist (contains Silty fine Sand lenses)	+/- 2ft		2-SS	7	2.1	1.5		21		
	▽ 5	50	3-SS	8	1.2	0.5		22		
Gray lean Clay, trace fine Sand-Moist			4-SS	6		1.0		20		
Gray Sandy Silt-Moist	10	45	5-SS	9		1.2		20		
Boring Terminated at about 11 feet (EL. 44.3')										

	Water Observation Data
▽	Water Encountered During Drilling: 5 ft.
▼	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 9 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

+/- ft

Suitable soil-bearing depth confirmed by Giles on 11/1/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 2	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 54.3 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 5" Asphalt Concrete	+/- 1ft									
± 3" Aggregate Base Course			1-SS	12						
Gray-Brown fine Sand, trace Silt-Moist			2-SS	12						
Gray fine Sand, trace Silt-Moist to Wet	5	50	3-SS	14						
			4-SS	25						
	10	45	5-SS	8						
Boring Terminated at about 11 feet (EL. 43.3')										

Water Observation Data	Remarks:
▽ Water Encountered During Drilling: 7.5 ft.	
▼ Water Level At End of Drilling:	+/- ft
Cave Depth At End of Drilling: 8 ft.	Suitable soil-bearing depth confirmed by Giles on 11/1/18
▼ Water Level After Drilling:	
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 3	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.6 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 8" Aggregate Base Course										
Fill: Gray-Brown fine Sand, trace Silt-Moist		50	1-SS	11						
			2-SS	15				12		(a)
+/- 4ft										
Gray Silty fine Sand-Moist	5		3-SS	13						
		45								
			4-SS	12						(a)
Gray lean Clay-Moist	10		5-SS	10	2.6	1.2		20		
Boring Terminated at about 11 feet (EL. 40.6')										

Water Observation Data	Remarks:
Water Encountered During Drilling:	(a) No split-spoon recovery-Auger sample taken
Water Level At End of Drilling:	+/- ft
Cave Depth At End of Drilling: 8.5 ft.	Suitable soil-bearing depth confirmed by Giles on 11/1/18
Water Level After Drilling:	
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 4	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 53.1 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 5" Asphalt Concrete										
± 6" Aggregate Base Course			1-SS	6						
Fill: Brown Silty Clay, some Sand and Gravel-Moist	+/- 2ft		2-SS	7	2.6	1.2		22		
Gray lean Clay-Moist (contains Silt lenses)		50								
	5		3-SS	7				18		(a)
	▽	45	4-SS	6	1.7	1.2		20		
	10		5-SS	6				19		(b)
Boring Terminated at about 11 feet (EL. 42.1')										

	Water Observation Data
▽	Water Encountered During Drilling: 8 ft.
▽	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 8.5 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

(a) No split-spoon recovery-Auger sample taken
(b) Poor sample recovery

+/- ft

Suitable soil-bearing depth confirmed by Giles on 11/1/18

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 5	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 54.2 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 8" Aggregate Base Course	+/- 2ft		1-SS	5						(a)
Fill: Brown Silty Clay, little Sand and Gravel-Moist			2-SS	6				13		
Gray-Brown Silty Clay, trace fine Sand-Moist		50								
Gray-Brown fine Sand, trace Silt-Damp	5		3-SS	8						
			4-SS	15						
Gray Silty fine Sand-Very Moist		45								
	10		5-SS	13						
Boring Terminated at about 11 feet (EL. 43.2')										

Water Observation Data	Remarks:
Water Encountered During Drilling:	(a) No split-spoon recovery-Auger sample taken
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 8.5 ft.	+/- ft
Water Level After Drilling:	Suitable soil-bearing depth confirmed by Giles on 11/1/18
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 6	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 54.9 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 8" Aggregate Base Course			1-SS	16						
Fill: Dark Brown to Black Silty fine to medium Sand and Gravel-Damp (contains Cinders and Asphalt Rubble	+/- 2ft		2-SS	10	2.3	2.5		17		
Brown and Gray Mottled lean Clay-Moist										
Brown lean Clay-Moist	5	50	3-SS	8	2.3	2.0		18		
Gray lean Clay, little to some Sand and Gravel-Moist			4-SS	16				8		
Gray Silty fine Sand-Wet	10	45	5-SS	21				12		
Boring Terminated at about 11 feet (EL. 43.9')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling:	
▼	Water Level At End of Drilling:	+/- ft
	Cave Depth At End of Drilling: 8.5 ft.	Suitable soil-bearing depth confirmed by Giles on 11/1/18
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 7	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 53 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3 1/2" Asphalt Concrete		+/- 1ft								
± 10" Aggregate Base Course			1-SS	11						
Gray-Brown Silty fine Sand-Damp										
Brown and Gray Mottled lean Clay-Moist		50	2-SS	7	2.5	2.1		19		
Brown lean Clay-Moist (contains Silty fine Sand lenses)	5		3-SS	13				15		
		45	4-SS	12		1.8		19		
Gray lean Clay, trace Sand-Moist	10		5-SS	8		2.2		14		
Boring Terminated at about 11 feet (EL. 42')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 3 ft.	
▽	Water Level At End of Drilling:	+/- ft — Suitable soil-bearing depth confirmed by Giles on 11/1/18
	Cave Depth At End of Drilling: 8.5 ft.	
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 8	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 53.4 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt										
± 8" Base Course			1-SS	9						
Fill: Dark Brown Silty Clay, little to some Sand and Gravel-Moist (contains Brick fragments and Cinders)		50	2-SS	12						(a)
+/- 5ft	5									
Gray and Brown Mottled lean Clay-Moist			3-SS	5		2.3		18		(b)
			4-SS	7						
		45								
Gray Silty fine Sand-Wet	10		5-SS	8				18		
Boring Terminated at about 11 feet (EL. 42.4')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 9.5 ft.	(a) No split-spoon recovery-Auger sample taken
▼	Water Level At End of Drilling:	(b) No sample recovery
	Cave Depth At End of Drilling: 9 ft.	+/- ft
▼	Water Level After Drilling:	Suitable soil-bearing depth confirmed by Giles on 11/1/18
	Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 9	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 52.1 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 8 1/2" Asphalt Concrete										
± 7" Aggregate Base Course			1-SS	5						
Gray-Brown Silty fine Sand-Moist	+/- 2ft	0	2-SS	6		1.5		18		
Gray lean Clay-Moist										
	5		3-SS	6	2.1	1.9		17		
	▽	45	4-SS	13	4.0	3.2		16		
	10		5-SS	16	3.0	2.5		15		

Boring Terminated at about 11 feet (EL. 41.1')

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 7 ft.	
▼	Water Level At End of Drilling:	+/- ft
	Cave Depth At End of Drilling: 8.5 ft.	Suitable soil-bearing depth confirmed by Giles on 11/1/18
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 10	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.9 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete										
± 9" Aggregate Base Course			1-SS	16						
Fill: Brown and Gray Silty Clay, little Sand and Gravel-Moist (contains Cinders)		50	2-SS	5	0.6	0.7		18		
Gray-Brown lean Clay-Very Moist to Wet	+/- 4ft									
Gray lean Clay-Very Moist (contains Silty fine Sand lenses)	5		3-SS	6	1.4	1.2		19		
		45								
	▽		4-SS	10		1.2		19		
	10		5-SS	7	1.8	1.2		21		

Boring Terminated at about 11 feet (EL. 40.9')

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 7.5 ft.	
▼	Water Level At End of Drilling:	
	Cave Depth At End of Drilling: 8 ft.	+/- ft
▼	Water Level After Drilling:	Suitable soil-bearing depth confirmed by Giles on 11/1/18
	Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 11	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.9 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 8" Aggregate Base Course			1-SS	7	4.5	4.0		14		
Fill: Gray lean Clay, trace Sand-Damp		50	2-SS	11	1.8	1.5		22		
Gray-Brown lean Clay-Moist (contains Silty fine Sand lenses)	5		3-SS	8				20		
Gray lean Clay-Moist **(contains Petroleum odor in sample 4-SS)**		45	4-SS	8	2.4	1.2		19		
Gray lean Clay-Moist (contains Silty fine Sand lenses)	10		5-SS	7	2.2	1.0		19		
Boring Terminated at about 11 feet (EL. 40.9')										

+/- 2ft

Water Observation Data	
▽	Water Encountered During Drilling:
▼	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 8 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

+/- ft

Remarks:

Suitable soil-bearing depth confirmed by Giles on 11/1/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

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BORING NO. & LOCATION: 12	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.5 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4 1/2" Asphalt Concrete										
± 7" Aggregate Base Course										
Fill: Gray-Brown fine Sand and Gravel-Damp		50	1-SS	12						
			2-SS	14						
Gray-Brown lean Clay, trace Sand-Very Mo (contains Silty fine Sand lenses) +/- 4ft	5		3-SS	9				21		
		45								
Gray lean Clay-Very Moist to Wet (contains Silty fine Sand lenses)			4-SS	7				21		
	10		5-SS	7				20		
		40								
	15		6-SS	8				19		
		35								
	20		7-SS	11		1.3		20		
		30								
	25		8-SS	11						
Boring Terminated at about 26 feet (EL. 25.5')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 5 ft.	
▼	Water Level At End of Drilling:	
	Cave Depth At End of Drilling: 7 ft.	+/- ft ◆——◆ Suitable Soil-Bearing Depth provided by Giles in original Geotech Report
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 13	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.2 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 2" Asphalt Concrete										
± 10" Aggregate Base Course										
Gray-Brown fine Sand-Damp			1-SS	13						
Gray-Brown Silty fine Sand-Very Moist to Wet			2-SS	11						
Gray lean Clay, little fine Sand-Very Moist	5	45	3-SS	4		0.5		19		
Gray lean Clay-Moist			4-SS	7	3.3	2.6		19		
	10	40	5-SS	7		2.1		20		
	15	35	6-SS	10	2.4	1.8		18		
Gray Silt-Moist	20	30	7-SS	11				18		
Gray fine Sand, trace Silt-Moist	25		8-SS	13						
Boring Terminated at about 26 feet (EL. 25.2')										

+/- 1ft

Water Observation Data	Remarks:
Water Encountered During Drilling: 4.5 ft.	+/- ft — Suitable Soil-Bearing Depth provided by Giles in original Geotech Report
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 4 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 14	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 50.7 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete										
± 10" Aggregate Base Course										
Fill: Gray and Brown Silty fine Sand, little Gravel-Moist			1-SS	13						
			2-SS	26						
Fill: Gray fine Sand, little Silt-Moist (contains Cinders and Brick fragments)	5	45	3-SS	12						
+/- 7ft										
Gray Silty fine Sand-Wet			4-SS	19				19		
Gray lean Clay-Moist (contains Silty fine Sand lenses)	10	40	5-SS	9				19		(a)
	15	35	6-SS	11	2.9	2.3		21		
	20	30	7-SS	14		1.0		20		
	25	25	8-SS	19		2.6		16		
Boring Terminated at about 26 feet (EL. 24.7')										

	Water Observation Data
▽	Water Encountered During Drilling: 7.5 ft.
▼	Water Level At End of Drilling: 21 ft.
	Cave Depth At End of Drilling: 23.5 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

(a) Poor sample recovery

+/- ft — **Suitable Soil-Bearing Depth provided by Giles in original Geotech Report**

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 15	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 50.5 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete		50								
± 8" Aggregate Base Course			1-SS	4	2.1	1.9		16		
Gray and Brown Mottled lean Clay, trace Sand-Moist			2-SS	9				20		
Gray Silty fine Sand-Very Moist										
Gray lean Clay, little Sand-Very Moist (contains Silty fine Sand lenses)	5	45	3-SS	7		1.0		20		
			4-SS	6		1.5		21		
	10	40	5-SS	6	3.5			19		
	15	35	6-SS	9		1.1		20		
	20	30	7-SS	12						
	25	25	8-SS	14				17		
Boring Terminated at about 26 feet (EL. 24.5')										

+/- 3ft

Water Observation Data	Remarks:
Water Encountered During Drilling: 3 ft.	+/- ft — Suitable Soil-Bearing Depth provided by Giles in original Geotech Report
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 4 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 16	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.1 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 7" Aggregate Base Course										
Fill: Brown Silty Clay, little to some Sand and Gravel-Moist (contains Asphalt Rubble and Cinders)			1-SS	7						
		50	2-SS	9		1.0		18		
Gray Sandy Silt-Moist										
	5	45	3-SS	8				18		
Gray lean Clay-Very Moist to Wet (contains Silty fine Sand lenses)			4-SS	8	2.6	1.5		20		
	10	40	5-SS	9	2.3	1.5		21		
	15	35	6-SS	13	1.8	1.2		19		
	20	30	7-SS	11		1.5		19		
Gray Silty fine Sand-Wet	25		8-SS	10				18		
Boring Terminated at about 26 feet (EL. 25.1')										

+/- 4ft

Water Observation Data	Remarks:
Water Encountered During Drilling: 3 ft.	+/- ft — Suitable Soil-Bearing Depth provided by Giles in original Geotech Report
Water Level At End of Drilling:	
Cave Depth At End of Drilling: 12 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 17	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.9 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 6" Aggregate Base Course			1-SS	10		1.7		15		
Gray-Brown Sandy Silt-Moist		50	2-SS	7		1.7		16		(a)
+/- 3ft										
Gray Sandy Silt-Wet	5		3-SS	8				19		
		45								
Gray lean Clay-Moist to Wet (contains Silty fine Sand lenses)			4-SS	7		2.0		21		
	10		5-SS	6	1.9	1.5		19		
		40								
	15		6-SS	11		1.0		20		
		35								
	20		7-SS	11		1.5		18		
		30								
	25		8-SS	11		1.0		17		
Boring Terminated at about 26 feet (EL. 25.9')										

	Water Observation Data
▽	Water Encountered During Drilling: 6 ft.
▼	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 13 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

(a) Poor sample recovery

+/- ft

Suitable Soil-Bearing Depth provided by Giles in original Geotech Report

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 18	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 45.2 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete		45								
± 4" Aggregate Base Course			1-SS	32						
Fill: Light Brown Silty fine to medium Sand and Gravel-Damp			2-SS	34						
	5	40	3-SS	52						
			4-SS	50/5"						
Gray Silty fine Sand and Gravel-Wet (contains Concrete fragments)	10	35	5-SS	39						
Gray lean Clay-Very Moist			6-SS	4		0.6		19		
	15	30	7-SS	7						
Boring Terminated at about 16 feet (EL. 29.2')										

+/- 11ft

	Water Observation Data
▽	Water Encountered During Drilling: 9 ft.
▼	Water Level At End of Drilling: 5 ft.
	Cave Depth At End of Drilling: 7 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

+/- ft

Suitable soil-bearing depth confirmed by Giles on 11/1/18

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 19	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.8 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 6" Asphalt Concrete										
± 6" Aggregate Base Course			1-SS	6				17		(a)
Brown lean Clay, trace Sand-Moist	+/- 2ft		2-SS	10		2.3		17		
Gray lean Clay, trace Silt-Moist (contains Silty fine Sand lenses)	5		3-SS	9	1.1	2.0		19		
Gray-Brown Silty fine Sand-Moist		45	4-SS	15				17		
Gray Silty fine Sand-Moist	10		5-SS	13				22		
Gray Sandy Silt-Wet ▽		40	6-SS	13				18		
	15		7-SS	12				16		
Boring Terminated at about 16 feet (EL. 35.8')										

	Water Observation Data
▽	Water Encountered During Drilling: 12 ft.
▼	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 12 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

(a) No split-spoon recovery-Auger sample taken

+/- ft

Suitable soil-bearing depth confirmed by Giles on 11/1/18

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 20	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 53.1 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 5" Asphalt Concrete										
± 10" Aggregate Base Course			1-SS	17						
Fill: Gray-Brown Silty fine Sand and Gravel-Moist		50	2-SS	17						
	5		3-SS	17						
	+/- 6ft									
Gray-Brown Sandy Silt-Very Moist to Wet		45	4-SS	13				16		
Gray Sandy Silt-Wet	10		5-SS	13				16		
		40	6-SS	10				16		
	15		7-SS	9				18		
Boring Terminated at about 16 feet (EL. 37.1')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: 7 ft.	+/- ft
▼	Water Level At End of Drilling:	Suitable soil-bearing depth confirmed by Giles on 11/1/18
	Cave Depth At End of Drilling: 11 ft.	
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: 21	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 52.9 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete										
± 8" Aggregate Base Course			1-SS	12						
Fill: Black Silty fine to coarse Sand and Gravel-Damp (contains Cinder and foundry Material)		50	2-SS	5				14		(a)
+/- 4ft										
Fill: Black Silty Clay, little Sand and Gravel-Moist (contains Organic Matter and Glass fragments)	5		3-SS	5		0.5		24		
Light Gray lean Clay-Very Moist to Wet										
Gray lean Clay-Moist		45	4-SS	8		2.5		19		
	10		5-SS	8				21		
		40								
Gray Sandy Silt-Wet **(contains Petroleum odor in sample 6-SS)**	15		6-SS	10	1.6	1.0		17		
Boring Terminated at about 16 feet (EL. 36.9')										

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling:	(a) Poor sample recovery
▼	Water Level At End of Drilling:	+/- ft
	Cave Depth At End of Drilling: 8 ft.	**Suitable soil-bearing depth confirmed by Giles on 11/1/18**
▼	Water Level After Drilling:	
	Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 22	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 51.7 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/17/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 3" Asphalt Concrete										
± 8" Aggregate Base Course										
Fill: Brown Silty Sandy Gravel-Damp			1-SS	20						
Gray Sandy Silt-Very Moist		50	2-SS	13				16		
	5		3-SS	6		0.9		19		
Gray lean Clay, little fine Sand-Moist		45	4-SS	4		1.7		18		
	10		5-SS	9		2.0		18		
		40								
	15		6-SS	11		2.0		20		
Boring Terminated at about 16 feet (EL. 35.7')										

+/- 2ft

Water Observation Data	Remarks:
Water Encountered During Drilling: 5 ft.	+/- ft
Water Level At End of Drilling:	Suitable soil-bearing depth confirmed by Giles on 11/1/18
Cave Depth At End of Drilling: 11 ft.	
Water Level After Drilling:	
Cave Depth After Drilling:	

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

BORING NO. & LOCATION: 23	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION: 50 feet	PROPOSED SCHOOL BUILDING	
COMPLETION DATE: 09/18/18	1818 W. NATIONAL AVENUE MILWAUKEE, WISCONSIN	
FIELD REP: KEITH FLOWERS	PROJECT NO: 1G-1808025	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
± 4" Asphalt Concrete										
± 4" Aggregate Base Course			1-SS	10		3.2		17		
Fill: Dark Gray Silty Clay, little Sand and Gravel-Moist			2-SS	50/3"						(a)
Concrete Rubble										
Fill: Gray Silty, Sandy Gravel-Damp to Wet	5	45	3-SS	13						(a)
			4-SS	7						
	10	40	5-SS	6						
+/- 12ft										
Gray lean Clay-Moist to Very Moist (Contain Silty fine Sand lenses)			6-SS	7		1.5		21		
	15	35	7-SS	7		2.0		20		
Boring Terminated at about 16 feet (EL. 34')										

	Water Observation Data
▽	Water Encountered During Drilling: 9 ft.
▼	Water Level At End of Drilling:
	Cave Depth At End of Drilling: 4 ft.
▼	Water Level After Drilling:
	Cave Depth After Drilling:

Remarks:

(a) Poor sample recovery

+/- ft — **Suitable Soil-Bearing Depth provided by Giles in original Geotech Report**

GILES LOG REPORT 1G1808025.GPJ GILES.GDT 10/10/18

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

APPENDIX B

SOIL LANDFILL MANIFESTS

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843334

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA7
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier STERMAN STERMAN SERVICES
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 08:25:38	InBound	jgindt		Gross	78580 lb
Out	06/03/2020 08:38:22	OutBound	jwagner		Tare	33780 lb
					Net	44800 lb
					Tons	22.40

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	22.40	Tons				WI
2	ENVT-ENVIRONMENTAL	100	22.40	Tons				WI
3	FUELT-FUEL SURCHAR	100	22.40	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843339

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier AUTO REGIOS AUTO REGIOS
Vehicle# 6 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 08:32:54	InBound	jgindt		Gross	72000 lb
Out	06/03/2020 08:42:20	OutBound	jwagner		Tare	28740 lb
					Net	43260 lb
					Tons	21.63

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	21.63	Tons				WI
2	ENVT-ENVIRONMENTAL	100	21.63	Tons				WI
3	FUELT-FUEL SURCHAR	100	21.63	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843341

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 08:41:05	InBound	jwagner		Gross	70100 lb
Out	06/03/2020 08:52:37	OutBound	jwagner		Tare	27560 lb
					Net	42540 lb
					Tons	21.27

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	21.27	Tons				WI
2	ENVT-ENVIRONMENTAL	100	21.27	Tons				WI
3	FUELT-FUEL SURCHAR	100	21.27	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843346

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 9 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 08:45:39	InBound	jwagner		Gross	79060 lb
Out	06/03/2020 08:53:48	OutBound	jwagner		Tare	29480 lb
					Net	49580 lb
					Tons	24.79

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	24.79	Tons				WI
2	ENVT-ENVIRONMENTAL	100	24.79	Tons				WI
3	FUELT-FUEL SURCHAR	100	24.79	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843377

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier SUPEREXCAVATORS SUPER EXCAVATORS
Vehicle# 109 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 09:26:50	InBound	jwagner		Gross	73100 lb
Out	06/03/2020 09:39:17	OutBound	jwagner		Tare	32060 lb
					Net	41040 lb
					Tons	20.52

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	20.52	Tons				WI
2	ENVT-ENVIRONMENTAL	100	20.52	Tons				WI
3	FUELT-FUEL SURCHAR	100	20.52	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843398

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier STERMAN STERMAN SERVICES
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 09:47:29	InBound	jwagner		Gross	84600 lb
Out	06/03/2020 09:47:29		jwagner		Tare	33780 lb
					Net	50820 lb
					Tons	25.41

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	25.41	Tons				WI
2	ENVT-ENVIRONMENTAL	100	25.41	Tons				WI
3	FUELT-FUEL SURCHAR	100	25.41	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843401

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier AUTO REGIOS AUTO REGIOS
Vehicle# 6 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 09:49:39	InBound	jwagner		Gross	75700 lb
Out	06/03/2020 09:49:39		jwagner		Tare	28740 lb
					Net	46960 lb
					Tons	23.48

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	23.48	Tons				WI
2	ENVT-ENVIRONMENTAL	100	23.48	Tons				WI
3	FUELT-FUEL SURCHAR	100	23.48	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843405

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 09:55:58	InBound	jwagner		Gross	67580 lb
Out	06/03/2020 09:55:58		jwagner		Tare	27560 lb
					Net	40020 lb
					Tons	20.01

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	20.01	Tons				WI
2	ENVT-ENVIRONMENTAL	100	20.01	Tons				WI
3	FUELT-FUEL SURCHAR	100	20.01	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843412

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 9 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 10:03:42	InBound	jwagner		Gross	75180 lb
Out	06/03/2020 10:03:42		jwagner		Tare	29480 lb
					Net	45700 lb
					Tons	22.85

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	22.85	Tons				WI
2	ENVT-ENVIRONMENTAL	100	22.85	Tons				WI
3	FUELT-FUEL SURCHAR	100	22.85	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843448

Customer Name	CGSCHMIDT C G SCHMIDT	Carrier	SUPEREXCAVATORS SUPER EXCAVATORS
Ticket Date	06/03/2020	Vehicle#	109 Volume
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0005915
State Waste Code	A-24-19	Gen EPA ID	
Manifest	NA		
Destination		Grid	
PO			
Profile	DC133614WI (FILL SOILS WM012D)		
Generator	136-CRISTOREY CRISTO REY JESUIT HS		

	Time	Scale	Operator	Inbound		
In	06/03/2020 10:53:52	InBound	jwagner		Gross	70840 lb
Out	06/03/2020 10:53:52		jwagner		Tare	32060 lb
					Net	38780 lb
					Tons	19.39

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	19.39	Tons				WI
2	ENVT-ENVIRONMENTAL	100	19.39	Tons				WI
3	FUELT-FUEL SURCHAR	100	19.39	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843459

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier STERMAN STERMAN SERVICES
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 11:02:44	InBound	jwagner		Gross	76520 lb
Out	06/03/2020 11:02:44		jwagner		Tare	33780 lb
					Net	42740 lb
					Tons	21.37

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	21.37	Tons				WI
2	ENVT-ENVIRONMENTAL	100	21.37	Tons				WI
3	FUELT-FUEL SURCHAR	100	21.37	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843465

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 11:10:55	InBound	jwagner		Gross	61200 lb
Out	06/03/2020 11:10:55		jwagner		Tare	27560 lb
					Net	33640 lb
					Tons	16.82

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	16.82	Tons				WI
2	ENVT-ENVIRONMENTAL	100	16.82	Tons				WI
3	FUELT-FUEL SURCHAR	100	16.82	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843472

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier AUTO REGIOS AUTO REGIOS
Vehicle# 6 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 11:16:44	InBound	jwagner		Gross	70560 lb
Out	06/03/2020 11:16:44		jwagner		Tare	28740 lb
					Net	41820 lb
					Tons	20.91

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	20.91	Tons				WI
2	ENVT-ENVIRONMENTAL	100	20.91	Tons				WI
3	FUELT-FUEL SURCHAR	100	20.91	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843484

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 9
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	06/03/2020 11:24:52	InBound	jwagner		Gross	73780 lb
Out	06/03/2020 11:24:52		jwagner		Tare	29480 lb
					Net	44300 lb
					Tons	22.15

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	22.15	Tons				WI
2	ENVT-ENVIRONMENTAL	100	22.15	Tons				WI
3	FUELT-FUEL SURCHAR	100	22.15	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843511

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier SUPEREXCAVATORS SUPER EXCAVATORS
Vehicle# 109 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 12:09:29	InBound	jwagner		Gross	68500 lb
Out	06/03/2020 12:09:29		jwagner		Tare	32060 lb
					Net	36440 lb
					Tons	18.22

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	18.22	Tons				WI
2	ENVT-ENVIRONMENTAL	100	18.22	Tons				WI
3	FUELT-FUEL SURCHAR	100	18.22	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843520

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier LINGFORD LINGFORD
Vehicle# 71 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 12:22:24	InBound	jwagner		Gross	66780 lb
Out	06/03/2020 12:22:24		jwagner		Tare	27560 lb
					Net	39220 lb
					Tons	19.61

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	19.61	Tons				WI
2	ENVT-ENVIRONMENTAL	100	19.61	Tons				WI
3	FUELT-FUEL SURCHAR	100	19.61	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

Orchard Ridge RDF
W124 N9355 Boundary Road
Menomonee Falls, WI, 53051
Ph: (262) 253-8620

Reprint
Ticket# 1843527

Customer Name CGSCHMIDT C G SCHMIDT
Ticket Date 06/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code A-24-19
Manifest NA
Destination
PO
Profile DC133614WI (FILL SOILS WM012D)
Generator 136-CRISTOREY CRISTO REY JESUIT HS

Carrier AUTO REGIOS AUTO REGIOS
Vehicle# 6 Volume
Container
Driver
Check#
Billing # 0005915
Gen EPA ID
Grid

	Time	Scale	Operator	Inbound		
In	06/03/2020 12:28:33	InBound	jwagner		Gross	77000 lb
Out	06/03/2020 12:28:33		jwagner		Tare	28740 lb
					Net	48260 lb
					Tons	24.13

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil RCG-Tons	100	24.13	Tons				WI
2	ENVT-ENVIRONMENTAL	100	24.13	Tons				WI
3	FUELT-FUEL SURCHAR	100	24.13	Tons				WI

Total Tax
Total Ticket

Driver`s Signature

APPENDIX C

LABORATORY ANALYTICAL REPORTS
&
CHAIN OF CUSTODY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 03, 2018

Travis Peterson
Kapur & Associates, Inc.
7711 N. Port Washington Road
Milwaukee, WI 53217

RE: Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Dear Travis Peterson:
Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Kapur Environmental, Kapur & Associates, Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40176305001	**B-1 (2-3.5)**	Solid	09/18/18 09:00	09/21/18 15:10
40176305002	**B-2 (2-3.5)**	Solid	09/18/18 09:30	09/21/18 15:10
40176305003	**B-4 (2-3.5)**	Solid	09/18/18 10:00	09/21/18 15:10
40176305004	**B-12 (2-3.5)**	Solid	09/18/18 10:30	09/21/18 15:10
40176305005	**B-12 (9.5-11)**	Solid	09/18/18 10:45	09/21/18 15:10
40176305006	**B-16 (2-3.5)**	Solid	09/18/18 11:00	09/21/18 15:10
40176305007	**B-17 (6"-2.5)**	Solid	09/18/18 11:30	09/21/18 15:10
40176305008	**B-18 (6"-2)**	Solid	09/18/18 12:00	09/21/18 15:10
40176305009	**B-18 (9.5-11)**	Solid	09/18/18 12:15	09/21/18 15:10
40176305010	**B-19 (6"-3.5)**	Solid	09/18/18 12:30	09/21/18 15:10
40176305011	**B-20 (6"-3.5)**	Solid	09/18/18 13:00	09/21/18 15:10
40176305012	**B-21 (2-3.5)**	Solid	09/18/18 13:30	09/21/18 15:10
40176305013	**B-21 (14.5-16)**	Solid	09/18/18 13:45	09/21/18 15:10
40176305014	**B-23 (6"-2)**	Solid	09/18/18 14:00	09/21/18 15:10
40176305015	**B-23 (12-13.5)**	Solid	09/18/18 14:45	09/21/18 15:10

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40176305001	**B-1 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305002	**B-2 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305003	**B-4 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305004	**B-12 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305005	**B-12 (9.5-11)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305006	**B-16 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305007	**B-17 (6"-2.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305008	**B-18 (6"-2)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305009	**B-18 (9.5-11)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305010	**B-19 (6"-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305011	**B-20 (6"-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305012	**B-21 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305013	**B-21 (14.5-16)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305014	**B-23 (6"-2)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305015	**B-23 (12-13.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	JXM	1	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305001	**B-1 (2-3.5)**					
EPA 6010	Arsenic	8.0	mg/kg	5.9	09/28/18 10:09	
EPA 6010	Barium	72.1	mg/kg	0.59	09/28/18 10:09	
EPA 6010	Cadmium	0.27J	mg/kg	0.59	09/28/18 10:09	
EPA 6010	Chromium	20.5	mg/kg	1.2	09/28/18 10:09	
EPA 6010	Lead	10.3	mg/kg	2.4	09/28/18 10:09	
EPA 8260	Methylene Chloride	70.3J	ug/kg	71.6	09/25/18 12:02	B
ASTM D2974-87	Percent Moisture	16.2	%	0.10	09/25/18 14:48	
40176305002	**B-2 (2-3.5)**					
EPA 6010	Arsenic	2.4J	mg/kg	5.2	09/28/18 10:17	
EPA 6010	Barium	8.2	mg/kg	0.52	09/28/18 10:17	
EPA 6010	Chromium	7.7	mg/kg	1.0	09/28/18 10:17	
EPA 6010	Lead	3.4	mg/kg	2.1	09/28/18 10:17	
EPA 8260	Methylene Chloride	66.4	ug/kg	63.9	09/25/18 12:25	B
ASTM D2974-87	Percent Moisture	6.1	%	0.10	09/25/18 14:48	
40176305003	**B-4 (2-3.5)**					
EPA 6010	Arsenic	4.3J	mg/kg	5.9	09/28/18 10:19	
EPA 6010	Barium	46.6	mg/kg	0.59	09/28/18 10:19	
EPA 6010	Cadmium	0.17J	mg/kg	0.59	09/28/18 10:19	
EPA 6010	Chromium	18.7	mg/kg	1.2	09/28/18 10:19	
EPA 6010	Lead	9.1	mg/kg	2.3	09/28/18 10:19	
EPA 8270 by SIM	Naphthalene	11.1J	ug/kg	33.7	09/25/18 15:08	
EPA 8260	Methylene Chloride	65.8J	ug/kg	72.0	09/25/18 12:48	B
ASTM D2974-87	Percent Moisture	16.7	%	0.10	09/25/18 14:48	
40176305004	**B-12 (2-3.5)**					
EPA 6010	Arsenic	7.7	mg/kg	5.6	09/28/18 10:22	
EPA 6010	Barium	180	mg/kg	0.56	09/28/18 10:22	
EPA 6010	Cadmium	0.65	mg/kg	0.56	09/28/18 10:22	
EPA 6010	Chromium	12.2	mg/kg	1.1	09/28/18 10:22	
EPA 6010	Lead	429	mg/kg	2.2	09/28/18 10:22	
EPA 7471	Mercury	0.040J	mg/kg	0.13	09/26/18 09:46	
EPA 8270 by SIM	Acenaphthene	4.5J	ug/kg	14.7	09/26/18 15:40	
EPA 8270 by SIM	Acenaphthylene	4.8J	ug/kg	12.5	09/26/18 15:40	
EPA 8270 by SIM	Anthracene	19.2J	ug/kg	21.6	09/26/18 15:40	
EPA 8270 by SIM	Benzo(a)anthracene	82.7	ug/kg	12.1	09/26/18 15:40	
EPA 8270 by SIM	Benzo(a)pyrene	84.6	ug/kg	9.5	09/26/18 15:40	
EPA 8270 by SIM	Benzo(b)fluoranthene	166	ug/kg	10.7	09/26/18 15:40	
EPA 8270 by SIM	Benzo(g,h,i)perylene	57.7	ug/kg	7.7	09/26/18 15:40	
EPA 8270 by SIM	Benzo(k)fluoranthene	46.2	ug/kg	9.5	09/26/18 15:40	
EPA 8270 by SIM	Chrysene	133	ug/kg	12.8	09/26/18 15:40	
EPA 8270 by SIM	Dibenz(a,h)anthracene	20.8	ug/kg	8.5	09/26/18 15:40	
EPA 8270 by SIM	Fluoranthene	171	ug/kg	19.8	09/26/18 15:40	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	44.3	ug/kg	8.4	09/26/18 15:40	
EPA 8270 by SIM	1-Methylnaphthalene	14.9J	ug/kg	15.3	09/26/18 15:40	
EPA 8270 by SIM	2-Methylnaphthalene	21.5	ug/kg	19.0	09/26/18 15:40	
EPA 8270 by SIM	Naphthalene	29.7J	ug/kg	32.0	09/26/18 15:40	
EPA 8270 by SIM	Phenanthrene	79.9	ug/kg	44.2	09/26/18 15:40	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305004	**B-12 (2-3.5)**					
EPA 8270 by SIM	Pyrene	122	ug/kg	17.1	09/26/18 15:40	
EPA 8260	1,2,4-Trimethylbenzene	35.4J	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,2-Dichlorobenzene	332	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,2-Dichloroethane	39.6J	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,4-Dichlorobenzene	306	ug/kg	68.3	09/25/18 13:12	
EPA 8260	Chlorobenzene	243	ug/kg	68.3	09/25/18 13:12	
EPA 8260	Methylene Chloride	56.8J	ug/kg	68.3	09/25/18 13:12	B
EPA 8260	Naphthalene	430	ug/kg	284	09/25/18 13:12	
EPA 8260	m&p-Xylene	91.0J	ug/kg	137	09/25/18 13:12	
EPA 8260	o-Xylene	57.1J	ug/kg	68.3	09/25/18 13:12	
ASTM D2974-87	Percent Moisture	12.1	%	0.10	09/25/18 14:48	
40176305005	**B-12 (9.5-11)**					
EPA 6010	Arsenic	6.4	mg/kg	5.6	09/28/18 10:24	
EPA 6010	Barium	57.6	mg/kg	0.56	09/28/18 10:24	
EPA 6010	Cadmium	0.20J	mg/kg	0.56	09/28/18 10:24	
EPA 6010	Chromium	14.7	mg/kg	1.1	09/28/18 10:24	
EPA 6010	Lead	8.0	mg/kg	2.2	09/28/18 10:24	
EPA 8260	1,2-Dichloroethane	174	ug/kg	71.0	09/25/18 13:35	
EPA 8260	Methylene Chloride	66.0J	ug/kg	71.0	09/25/18 13:35	B
ASTM D2974-87	Percent Moisture	15.5	%	0.10	09/25/18 14:48	
40176305006	**B-16 (2-3.5)**					
EPA 6010	Arsenic	5.4	mg/kg	5.3	09/28/18 10:27	
EPA 6010	Barium	52.3	mg/kg	0.53	09/28/18 10:27	
EPA 6010	Cadmium	0.20J	mg/kg	0.53	09/28/18 10:27	
EPA 6010	Chromium	15.9	mg/kg	1.1	09/28/18 10:27	
EPA 6010	Lead	7.9	mg/kg	2.1	09/28/18 10:27	
EPA 8260	Methylene Chloride	56.3J	ug/kg	70.8	09/25/18 13:58	B
ASTM D2974-87	Percent Moisture	15.3	%	0.10	09/25/18 14:48	
40176305007	**B-17 (6''-2.5)**					
EPA 6010	Arsenic	4.0J	mg/kg	5.4	09/28/18 10:34	
EPA 6010	Barium	11.7	mg/kg	0.54	09/28/18 10:34	
EPA 6010	Chromium	8.4	mg/kg	1.1	09/28/18 10:34	
EPA 6010	Lead	3.8	mg/kg	2.2	09/28/18 10:34	
EPA 8270 by SIM	Benzo(a)anthracene	20.4	ug/kg	11.8	09/26/18 15:58	
EPA 8270 by SIM	Benzo(a)pyrene	22.5	ug/kg	9.3	09/26/18 15:58	
EPA 8270 by SIM	Benzo(b)fluoranthene	33.6	ug/kg	10.4	09/26/18 15:58	
EPA 8270 by SIM	Benzo(g,h,i)perylene	12.9	ug/kg	7.5	09/26/18 15:58	
EPA 8270 by SIM	Benzo(k)fluoranthene	14.0	ug/kg	9.3	09/26/18 15:58	
EPA 8270 by SIM	Chrysene	27.7	ug/kg	12.4	09/26/18 15:58	
EPA 8270 by SIM	Dibenz(a,h)anthracene	3.7J	ug/kg	8.3	09/26/18 15:58	
EPA 8270 by SIM	Fluoranthene	53.5	ug/kg	19.3	09/26/18 15:58	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	10.2	ug/kg	8.1	09/26/18 15:58	
EPA 8270 by SIM	Pyrene	43.3	ug/kg	16.6	09/26/18 15:58	
EPA 8260	Methylene Chloride	67.5	ug/kg	66.6	09/25/18 14:21	B
ASTM D2974-87	Percent Moisture	9.9	%	0.10	09/25/18 14:48	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305008	**B-18 (6''-2)**					
EPA 6010	Arsenic	4.1J	mg/kg	10.2	10/02/18 18:18	D3
EPA 6010	Barium	14.7	mg/kg	1.0	10/02/18 18:18	
EPA 6010	Chromium	6.9	mg/kg	2.0	10/02/18 18:18	
EPA 6010	Lead	4.1	mg/kg	4.1	10/02/18 18:18	
EPA 8270 by SIM	Benzo(a)anthracene	19.8	ug/kg	11.2	09/26/18 16:15	
EPA 8270 by SIM	Benzo(a)pyrene	22.5	ug/kg	8.9	09/26/18 16:15	
EPA 8270 by SIM	Benzo(b)fluoranthene	30.1	ug/kg	10	09/26/18 16:15	
EPA 8270 by SIM	Benzo(g,h,i)perylene	13.4	ug/kg	7.2	09/26/18 16:15	
EPA 8270 by SIM	Benzo(k)fluoranthene	13.8	ug/kg	8.9	09/26/18 16:15	
EPA 8270 by SIM	Chrysene	20.2	ug/kg	11.9	09/26/18 16:15	
EPA 8270 by SIM	Dibenz(a,h)anthracene	3.3J	ug/kg	7.9	09/26/18 16:15	
EPA 8270 by SIM	Fluoranthene	37.6	ug/kg	18.4	09/26/18 16:15	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	10.2	ug/kg	7.8	09/26/18 16:15	
EPA 8270 by SIM	Pyrene	31.8	ug/kg	15.9	09/26/18 16:15	
EPA 8260	Methylene Chloride	51.6J	ug/kg	63.5	09/25/18 14:44	B
ASTM D2974-87	Percent Moisture	5.5	%	0.10	09/25/18 14:48	
40176305009	**B-18 (9.5-11)**					
EPA 6010	Arsenic	4.9J	mg/kg	10.3	10/02/18 18:20	D3
EPA 6010	Barium	45.2	mg/kg	1.0	10/02/18 18:20	
EPA 6010	Chromium	9.0	mg/kg	2.1	10/02/18 18:20	
EPA 6010	Lead	5.2	mg/kg	4.1	10/02/18 18:20	
EPA 8270 by SIM	Acenaphthene	5.3J	ug/kg	14.4	09/26/18 16:32	
EPA 8270 by SIM	Anthracene	12.1J	ug/kg	21.2	09/26/18 16:32	
EPA 8270 by SIM	Benzo(a)anthracene	19.8	ug/kg	11.8	09/26/18 16:32	
EPA 8270 by SIM	Benzo(a)pyrene	15.1	ug/kg	9.3	09/26/18 16:32	
EPA 8270 by SIM	Benzo(b)fluoranthene	24.8	ug/kg	10.5	09/26/18 16:32	
EPA 8270 by SIM	Benzo(g,h,i)perylene	7.0J	ug/kg	7.6	09/26/18 16:32	
EPA 8270 by SIM	Benzo(k)fluoranthene	9.8	ug/kg	9.3	09/26/18 16:32	
EPA 8270 by SIM	Chrysene	26.9	ug/kg	12.5	09/26/18 16:32	
EPA 8270 by SIM	Fluoranthene	78.1	ug/kg	19.4	09/26/18 16:32	
EPA 8270 by SIM	Fluorene	5.4J	ug/kg	15.4	09/26/18 16:32	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	5.9J	ug/kg	8.2	09/26/18 16:32	
EPA 8270 by SIM	Phenanthrene	50.8	ug/kg	43.3	09/26/18 16:32	
EPA 8270 by SIM	Pyrene	51.9	ug/kg	16.7	09/26/18 16:32	
EPA 8260	Methylene Chloride	63.8J	ug/kg	66.9	09/25/18 15:07	B
ASTM D2974-87	Percent Moisture	10.3	%	0.10	09/25/18 14:49	
40176305010	**B-19 (6''-3.5)**					
EPA 6010	Arsenic	5.3J	mg/kg	10.8	10/02/18 18:23	D3
EPA 6010	Barium	12.9	mg/kg	1.1	10/02/18 18:23	
EPA 6010	Chromium	7.6	mg/kg	2.2	10/02/18 18:23	
EPA 6010	Lead	1.9J	mg/kg	4.3	10/02/18 18:23	D3
EPA 8270 by SIM	Acenaphthene	12.7J	ug/kg	14.7	09/26/18 16:50	
EPA 8270 by SIM	Acenaphthylene	5.4J	ug/kg	12.6	09/26/18 16:50	
EPA 8270 by SIM	Anthracene	44.9	ug/kg	21.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(a)anthracene	136	ug/kg	12.1	09/26/18 16:50	
EPA 8270 by SIM	Benzo(a)pyrene	142	ug/kg	9.6	09/26/18 16:50	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305010	**B-19 (6''-3.5)**					
EPA 8270 by SIM	Benzo(b)fluoranthene	234	ug/kg	10.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(g,h,i)perylene	61.2	ug/kg	7.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(k)fluoranthene	77.4	ug/kg	9.5	09/26/18 16:50	
EPA 8270 by SIM	Chrysene	173	ug/kg	12.8	09/26/18 16:50	
EPA 8270 by SIM	Dibenz(a,h)anthracene	15.9	ug/kg	8.5	09/26/18 16:50	
EPA 8270 by SIM	Fluoranthene	360	ug/kg	19.9	09/26/18 16:50	
EPA 8270 by SIM	Fluorene	11.3J	ug/kg	15.8	09/26/18 16:50	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	41.2	ug/kg	8.4	09/26/18 16:50	
EPA 8270 by SIM	1-Methylnaphthalene	13.7J	ug/kg	15.3	09/26/18 16:50	
EPA 8270 by SIM	2-Methylnaphthalene	20.9	ug/kg	19.1	09/26/18 16:50	
EPA 8270 by SIM	Phenanthrene	212	ug/kg	44.3	09/26/18 16:50	
EPA 8270 by SIM	Pyrene	271	ug/kg	17.1	09/26/18 16:50	
EPA 8260	Methylene Chloride	57.3J	ug/kg	68.6	09/25/18 15:30	B
ASTM D2974-87	Percent Moisture	12.5	%	0.10	09/25/18 14:49	
40176305011	**B-20 (6''-3.5)**					
EPA 6010	Arsenic	5.9J	mg/kg	10.5	10/02/18 18:25	D3
EPA 6010	Barium	8.9	mg/kg	1.0	10/02/18 18:25	
EPA 6010	Chromium	4.5	mg/kg	2.1	10/02/18 18:25	
EPA 6010	Lead	7.0	mg/kg	4.2	10/02/18 18:25	
EPA 8270 by SIM	Anthracene	7.9J	ug/kg	20.2	09/26/18 17:07	
EPA 8270 by SIM	Benzo(a)anthracene	26.1	ug/kg	11.3	09/26/18 17:07	
EPA 8270 by SIM	Benzo(a)pyrene	26.5	ug/kg	8.9	09/26/18 17:07	
EPA 8270 by SIM	Benzo(b)fluoranthene	41.4	ug/kg	10.0	09/26/18 17:07	
EPA 8270 by SIM	Benzo(g,h,i)perylene	10.5	ug/kg	7.2	09/26/18 17:07	
EPA 8270 by SIM	Benzo(k)fluoranthene	14.6	ug/kg	8.9	09/26/18 17:07	
EPA 8270 by SIM	Chrysene	34.1	ug/kg	11.9	09/26/18 17:07	
EPA 8270 by SIM	Dibenz(a,h)anthracene	2.8J	ug/kg	7.9	09/26/18 17:07	
EPA 8270 by SIM	Fluoranthene	60.9	ug/kg	18.5	09/26/18 17:07	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	7.4J	ug/kg	7.8	09/26/18 17:07	
EPA 8270 by SIM	Phenanthrene	32.6J	ug/kg	41.3	09/26/18 17:07	
EPA 8270 by SIM	Pyrene	46.9	ug/kg	16.0	09/26/18 17:07	
EPA 8260	Methylene Chloride	44.0J	ug/kg	63.9	09/25/18 16:06	B
ASTM D2974-87	Percent Moisture	6.1	%	0.10	09/25/18 14:49	
40176305012	**B-21 (2-3.5)**					
EPA 6010	Arsenic	9.1	mg/kg	5.6	09/28/18 10:46	
EPA 6010	Barium	660	mg/kg	0.56	09/28/18 10:46	
EPA 6010	Cadmium	104	mg/kg	0.56	09/28/18 10:46	
EPA 6010	Chromium	214	mg/kg	1.1	09/28/18 10:46	
EPA 6010	Lead	8250	mg/kg	225	10/02/18 18:28	
EPA 6010	Selenium	3.9J	mg/kg	4.9	09/28/18 10:46	
EPA 6010	Silver	1.1	mg/kg	1.1	09/28/18 10:46	
EPA 7471	Mercury	0.22	mg/kg	0.13	09/26/18 10:04	
EPA 8270 by SIM	Acenaphthene	538	ug/kg	297	09/26/18 13:06	
EPA 8270 by SIM	Acenaphthylene	90.8J	ug/kg	253	09/26/18 13:06	
EPA 8270 by SIM	Anthracene	1400	ug/kg	438	09/26/18 13:06	
EPA 8270 by SIM	Benzo(a)anthracene	2090	ug/kg	244	09/26/18 13:06	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305012	**B-21 (2-3.5)**					
EPA 8270 by SIM	Benzo(a)pyrene	2190	ug/kg	193	09/26/18 13:06	
EPA 8270 by SIM	Benzo(b)fluoranthene	2740	ug/kg	217	09/26/18 13:06	
EPA 8270 by SIM	Benzo(g,h,i)perylene	1560	ug/kg	156	09/26/18 13:06	
EPA 8270 by SIM	Benzo(k)fluoranthene	1230	ug/kg	193	09/26/18 13:06	
EPA 8270 by SIM	Chrysene	2410	ug/kg	258	09/26/18 13:06	
EPA 8270 by SIM	Dibenz(a,h)anthracene	306	ug/kg	172	09/26/18 13:06	
EPA 8270 by SIM	Fluoranthene	6770	ug/kg	401	09/26/18 13:06	
EPA 8270 by SIM	Fluorene	756	ug/kg	318	09/26/18 13:06	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	1190	ug/kg	169	09/26/18 13:06	
EPA 8270 by SIM	1-Methylnaphthalene	323	ug/kg	309	09/26/18 13:06	
EPA 8270 by SIM	2-Methylnaphthalene	564	ug/kg	385	09/26/18 13:06	
EPA 8270 by SIM	Naphthalene	1090	ug/kg	647	09/26/18 13:06	
EPA 8270 by SIM	Phenanthrene	4110	ug/kg	894	09/26/18 13:06	
EPA 8270 by SIM	Pyrene	5080	ug/kg	346	09/26/18 13:06	
EPA 8260	1,2,4-Trichlorobenzene	102J	ug/kg	288	09/25/18 16:29	
EPA 8260	1,2,4-Trimethylbenzene	77.3	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,2-Dichlorobenzene	1290	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,3,5-Trimethylbenzene	44.4J	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,3-Dichlorobenzene	88.4	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,4-Dichlorobenzene	1170	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Chlorobenzene	1430	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Ethylbenzene	130	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Methylene Chloride	60.1J	ug/kg	69.2	09/25/18 16:29	B
EPA 8260	Naphthalene	1140	ug/kg	288	09/25/18 16:29	
EPA 8260	Toluene	136	ug/kg	69.2	09/25/18 16:29	
EPA 8260	m&p-Xylene	254	ug/kg	138	09/25/18 16:29	
EPA 8260	n-Butylbenzene	40.6J	ug/kg	69.2	09/25/18 16:29	
EPA 8260	o-Xylene	134	ug/kg	69.2	09/25/18 16:29	
ASTM D2974-87	Percent Moisture	13.3	%	0.10	09/25/18 14:49	
40176305013	**B-21 (14.5-16)**					
EPA 6010	Arsenic	6.4	mg/kg	5.8	09/28/18 10:49	
EPA 6010	Barium	61.9	mg/kg	0.58	09/28/18 10:49	
EPA 6010	Cadmium	0.39J	mg/kg	0.58	09/28/18 10:49	
EPA 6010	Chromium	16.6	mg/kg	1.2	09/28/18 10:49	
EPA 6010	Lead	17.9	mg/kg	2.3	09/28/18 10:49	
EPA 8270 by SIM	Acenaphthene	884	ug/kg	382	09/26/18 12:31	
EPA 8270 by SIM	Acenaphthylene	207J	ug/kg	326	09/26/18 12:31	
EPA 8270 by SIM	Anthracene	384J	ug/kg	563	09/26/18 12:31	
EPA 8270 by SIM	Fluorene	996	ug/kg	409	09/26/18 12:31	
EPA 8270 by SIM	1-Methylnaphthalene	9270	ug/kg	397	09/26/18 12:31	
EPA 8270 by SIM	2-Methylnaphthalene	16900	ug/kg	495	09/26/18 12:31	
EPA 8270 by SIM	Naphthalene	3510	ug/kg	832	09/26/18 12:31	
EPA 8270 by SIM	Phenanthrene	3260	ug/kg	1150	09/26/18 12:31	
EPA 8270 by SIM	Pyrene	175J	ug/kg	444	09/26/18 12:31	
EPA 8260	Methylene Chloride	49.8J	ug/kg	71.0	09/25/18 16:52	B
EPA 8260	Naphthalene	106J	ug/kg	296	09/25/18 16:52	
ASTM D2974-87	Percent Moisture	15.5	%	0.10	09/25/18 14:49	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305014	**B-23 (6''-2)**					
EPA 6010	Arsenic	5.2J	mg/kg	5.4	09/28/18 10:51	
EPA 6010	Barium	66.8	mg/kg	0.54	09/28/18 10:51	
EPA 6010	Cadmium	0.36J	mg/kg	0.54	09/28/18 10:51	
EPA 6010	Chromium	18.2	mg/kg	1.1	09/28/18 10:51	
EPA 6010	Lead	50.3	mg/kg	2.2	09/28/18 10:51	
EPA 7471	Mercury	0.069J	mg/kg	0.12	09/26/18 10:13	
EPA 8270 by SIM	Acenaphthene	185	ug/kg	57.6	09/26/18 14:49	
EPA 8270 by SIM	Acenaphthylene	34.0J	ug/kg	49.1	09/26/18 14:49	
EPA 8270 by SIM	Anthracene	322	ug/kg	84.8	09/26/18 14:49	
EPA 8270 by SIM	Benzo(a)anthracene	729	ug/kg	47.3	09/26/18 14:49	
EPA 8270 by SIM	Benzo(a)pyrene	744	ug/kg	37.4	09/26/18 14:49	
EPA 8270 by SIM	Benzo(b)fluoranthene	905	ug/kg	42.0	09/26/18 14:49	
EPA 8270 by SIM	Benzo(g,h,i)perylene	420	ug/kg	30.2	09/26/18 14:49	
EPA 8270 by SIM	Benzo(k)fluoranthene	425	ug/kg	37.3	09/26/18 14:49	
EPA 8270 by SIM	Chrysene	827	ug/kg	50.0	09/26/18 14:49	
EPA 8270 by SIM	Dibenz(a,h)anthracene	111	ug/kg	33.3	09/26/18 14:49	
EPA 8270 by SIM	Fluoranthene	1630	ug/kg	77.7	09/26/18 14:49	
EPA 8270 by SIM	Fluorene	26.2J	ug/kg	61.6	09/26/18 14:49	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	369	ug/kg	32.7	09/26/18 14:49	
EPA 8270 by SIM	1-Methylnaphthalene	37.7J	ug/kg	59.8	09/26/18 14:49	
EPA 8270 by SIM	Phenanthrene	576	ug/kg	173	09/26/18 14:49	
EPA 8270 by SIM	Pyrene	1220	ug/kg	67.0	09/26/18 14:49	
EPA 8260	Methylene Chloride	64.1J	ug/kg	67.0	09/25/18 19:11	B
ASTM D2974-87	Percent Moisture	10.4	%	0.10	09/25/18 14:49	
40176305015	**B-23 (12-13.5)**					
EPA 6010	Arsenic	4.8J	mg/kg	5.5	09/28/18 10:54	
EPA 6010	Barium	75.2	mg/kg	0.55	09/28/18 10:54	
EPA 6010	Cadmium	0.25J	mg/kg	0.55	09/28/18 10:54	
EPA 6010	Chromium	20.7	mg/kg	1.1	09/28/18 10:54	
EPA 6010	Lead	11.7	mg/kg	2.2	09/28/18 10:54	
EPA 8270 by SIM	Benzo(a)anthracene	5.6J	ug/kg	12.8	09/26/18 11:40	
EPA 8270 by SIM	Fluoranthene	6.6J	ug/kg	21.1	09/26/18 11:40	
EPA 8270 by SIM	Pyrene	5.8J	ug/kg	18.2	09/26/18 11:40	
EPA 8260	1,2-Dichloroethane	115	ug/kg	72.7	09/25/18 17:15	
EPA 8260	Methylene Chloride	59.7J	ug/kg	72.7	09/25/18 17:15	B
ASTM D2974-87	Percent Moisture	17.4	%	0.10	09/25/18 14:49	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**8.0**	mg/kg	5.9	1.2	1	09/26/18 07:12	09/28/18 10:09	7440-38-2	
Barium	**72.1**	mg/kg	0.59	0.18	1	09/26/18 07:12	09/28/18 10:09	7440-39-3	
Cadmium	**0.27J**	mg/kg	0.59	0.16	1	09/26/18 07:12	09/28/18 10:09	7440-43-9	
Chromium	**20.5**	mg/kg	1.2	0.33	1	09/26/18 07:12	09/28/18 10:09	7440-47-3	
Lead	**10.3**	mg/kg	2.4	0.71	1	09/26/18 07:12	09/28/18 10:09	7439-92-1	
Selenium	**<1.6**	mg/kg	5.2	1.6	1	09/26/18 07:12	09/28/18 10:09	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	09/26/18 07:12	09/28/18 10:09	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 09:34	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.4	4.6	1	09/25/18 08:51	09/25/18 14:34	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.1	3.9	1	09/25/18 08:51	09/25/18 14:34	208-96-8	
Anthracene	**<6.8**	ug/kg	22.6	6.8	1	09/25/18 08:51	09/25/18 14:34	120-12-7	
Benzo(a)anthracene	**<3.8**	ug/kg	12.6	3.8	1	09/25/18 08:51	09/25/18 14:34	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10	3.0	1	09/25/18 08:51	09/25/18 14:34	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.2	3.4	1	09/25/18 08:51	09/25/18 14:34	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/25/18 14:34	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10	3.0	1	09/25/18 08:51	09/25/18 14:34	207-08-9	
Chrysene	**<4.0**	ug/kg	13.3	4.0	1	09/25/18 08:51	09/25/18 14:34	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:34	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.7	6.2	1	09/25/18 08:51	09/25/18 14:34	206-44-0	
Fluorene	**<4.9**	ug/kg	16.4	4.9	1	09/25/18 08:51	09/25/18 14:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 14:34	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/25/18 14:34	90-12-0	
2-Methylnaphthalene	**<6.0**	ug/kg	19.9	6.0	1	09/25/18 08:51	09/25/18 14:34	91-57-6	
Naphthalene	**<10.0**	ug/kg	33.5	10.0	1	09/25/18 08:51	09/25/18 14:34	91-20-3	
Phenanthrene	**<13.9**	ug/kg	46.2	13.9	1	09/25/18 08:51	09/25/18 14:34	85-01-8	
Pyrene	**<5.4**	ug/kg	17.9	5.4	1	09/25/18 08:51	09/25/18 14:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	55	%	10-115		1	09/25/18 08:51	09/25/18 14:34	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		1	09/25/18 08:51	09/25/18 14:34	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:02	120-82-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:02	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:02	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:02	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:02	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	1634-04-4	W
Methylene Chloride	**70.3J**	ug/kg	71.6	29.8	1	09/25/18 08:00	09/25/18 12:02	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:02	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:02	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	103-65-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	108	%	57-148		1	09/25/18 08:00	09/25/18 12:02	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 12:02	2037-26-5	
4-Bromofluorobenzene (S)	84	%	48-130		1	09/25/18 08:00	09/25/18 12:02	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.4J**	mg/kg	5.2	1.1	1	09/26/18 07:12	09/28/18 10:17	7440-38-2	
Barium	**8.2**	mg/kg	0.52	0.16	1	09/26/18 07:12	09/28/18 10:17	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.52	0.14	1	09/26/18 07:12	09/28/18 10:17	7440-43-9	
Chromium	**7.7**	mg/kg	1.0	0.29	1	09/26/18 07:12	09/28/18 10:17	7440-47-3	
Lead	**3.4**	mg/kg	2.1	0.62	1	09/26/18 07:12	09/28/18 10:17	7439-92-1	
Selenium	**<1.4**	mg/kg	4.5	1.4	1	09/26/18 07:12	09/28/18 10:17	7782-49-2	
Silver	**<0.36**	mg/kg	1.0	0.36	1	09/26/18 07:12	09/28/18 10:17	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.036**	mg/kg	0.12	0.036	1	09/25/18 12:34	09/26/18 09:36	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/25/18 14:51	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.7	3.5	1	09/25/18 08:51	09/25/18 14:51	208-96-8	
Anthracene	**<6.1**	ug/kg	20.2	6.1	1	09/25/18 08:51	09/25/18 14:51	120-12-7	
Benzo(a)anthracene	**<3.4**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/25/18 14:51	56-55-3	
Benzo(a)pyrene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:51	50-32-8	
Benzo(b)fluoranthene	**<3.0**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/25/18 14:51	205-99-2	
Benzo(g,h,i)perylene	**<2.2**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/25/18 14:51	191-24-2	
Benzo(k)fluoranthene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:51	207-08-9	
Chrysene	**<3.6**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/25/18 14:51	218-01-9	
Dibenz(a,h)anthracene	**<2.4**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/25/18 14:51	53-70-3	
Fluoranthene	**<5.5**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/25/18 14:51	206-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Fluorene	**<4.4**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/25/18 14:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.3**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/25/18 14:51	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/25/18 14:51	90-12-0	
2-Methylnaphthalene	**<5.3**	ug/kg	17.8	5.3	1	09/25/18 08:51	09/25/18 14:51	91-57-6	
Naphthalene	**<9.0**	ug/kg	29.9	9.0	1	09/25/18 08:51	09/25/18 14:51	91-20-3	
Phenanthrene	**<12.4**	ug/kg	41.3	12.4	1	09/25/18 08:51	09/25/18 14:51	85-01-8	
Pyrene	**<4.8**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/25/18 14:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	51	%	10-115		1	09/25/18 08:51	09/25/18 14:51	321-60-8	
Terphenyl-d14 (S)	47	%	10-121		1	09/25/18 08:51	09/25/18 14:51	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:25	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:25	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:25	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:25	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:25	67-66-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	1634-04-4	W
Methylene Chloride	**66.4**	ug/kg	63.9	26.6	1	09/25/18 08:00	09/25/18 12:25	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:25	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:25	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	145	%	57-148		1	09/25/18 08:00	09/25/18 12:25	1868-53-7	
Toluene-d8 (S)	138	%	58-142		1	09/25/18 08:00	09/25/18 12:25	2037-26-5	
4-Bromofluorobenzene (S)	114	%	48-130		1	09/25/18 08:00	09/25/18 12:25	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.1**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.3J**	mg/kg	5.9	1.2	1	09/26/18 07:12	09/28/18 10:19	7440-38-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Barium	**46.6**	mg/kg	0.59	0.18	1	09/26/18 07:12	09/28/18 10:19	7440-39-3	
Cadmium	**0.17J**	mg/kg	0.59	0.16	1	09/26/18 07:12	09/28/18 10:19	7440-43-9	
Chromium	**18.7**	mg/kg	1.2	0.33	1	09/26/18 07:12	09/28/18 10:19	7440-47-3	
Lead	**9.1**	mg/kg	2.3	0.70	1	09/26/18 07:12	09/28/18 10:19	7439-92-1	
Selenium	**<1.5**	mg/kg	5.1	1.5	1	09/26/18 07:12	09/28/18 10:19	7782-49-2	
Silver	**<0.40**	mg/kg	1.2	0.40	1	09/26/18 07:12	09/28/18 10:19	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.038**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:39	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.7**	ug/kg	15.5	4.7	1	09/25/18 08:51	09/25/18 15:08	83-32-9	
Acenaphthylene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:08	208-96-8	
Anthracene	**<6.9**	ug/kg	22.8	6.9	1	09/25/18 08:51	09/25/18 15:08	120-12-7	
Benzo(a)anthracene	**<3.8**	ug/kg	12.7	3.8	1	09/25/18 08:51	09/25/18 15:08	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 08:51	09/25/18 15:08	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/25/18 15:08	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/25/18 15:08	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/25/18 15:08	207-08-9	
Chrysene	**<4.0**	ug/kg	13.4	4.0	1	09/25/18 08:51	09/25/18 15:08	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 15:08	53-70-3	
Fluoranthene	**<6.3**	ug/kg	20.9	6.3	1	09/25/18 08:51	09/25/18 15:08	206-44-0	
Fluorene	**<5.0**	ug/kg	16.6	5.0	1	09/25/18 08:51	09/25/18 15:08	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:08	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	16.1	4.8	1	09/25/18 08:51	09/25/18 15:08	90-12-0	
2-Methylnaphthalene	**<6.0**	ug/kg	20.1	6.0	1	09/25/18 08:51	09/25/18 15:08	91-57-6	
Naphthalene	**11.1J**	ug/kg	33.7	10.1	1	09/25/18 08:51	09/25/18 15:08	91-20-3	
Phenanthrene	**<14.0**	ug/kg	46.6	14.0	1	09/25/18 08:51	09/25/18 15:08	85-01-8	
Pyrene	**<5.4**	ug/kg	18.0	5.4	1	09/25/18 08:51	09/25/18 15:08	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	10-115		1	09/25/18 08:51	09/25/18 15:08	321-60-8	
Terphenyl-d14 (S)	56	%	10-121		1	09/25/18 08:51	09/25/18 15:08	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:48	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-63-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:48	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:48	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:48	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:48	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	1634-04-4	W
Methylene Chloride	**65.8J**	ug/kg	72.0	30.0	1	09/25/18 08:00	09/25/18 12:48	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:48	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:48	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-47-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	116	%	57-148		1	09/25/18 08:00	09/25/18 12:48	1868-53-7	
Toluene-d8 (S)	110	%	58-142		1	09/25/18 08:00	09/25/18 12:48	2037-26-5	
4-Bromofluorobenzene (S)	95	%	48-130		1	09/25/18 08:00	09/25/18 12:48	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**7.7**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:22	7440-38-2	
Barium	**180**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:22	7440-39-3	
Cadmium	**0.65**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:22	7440-43-9	
Chromium	**12.2**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:22	7440-47-3	
Lead	**429**	mg/kg	2.2	0.67	1	09/26/18 07:12	09/28/18 10:22	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:22	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	09/26/18 07:12	09/28/18 10:22	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.040J**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:46	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**4.5J**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 15:40	83-32-9	
Acenaphthylene	**4.8J**	ug/kg	12.5	3.8	1	09/25/18 08:51	09/26/18 15:40	208-96-8	
Anthracene	**19.2J**	ug/kg	21.6	6.5	1	09/25/18 08:51	09/26/18 15:40	120-12-7	
Benzo(a)anthracene	**82.7**	ug/kg	12.1	3.6	1	09/25/18 08:51	09/26/18 15:40	56-55-3	
Benzo(a)pyrene	**84.6**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 15:40	50-32-8	
Benzo(b)fluoranthene	**166**	ug/kg	10.7	3.2	1	09/25/18 08:51	09/26/18 15:40	205-99-2	
Benzo(g,h,i)perylene	**57.7**	ug/kg	7.7	2.3	1	09/25/18 08:51	09/26/18 15:40	191-24-2	
Benzo(k)fluoranthene	**46.2**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 15:40	207-08-9	
Chrysene	**133**	ug/kg	12.8	3.8	1	09/25/18 08:51	09/26/18 15:40	218-01-9	
Dibenz(a,h)anthracene	**20.8**	ug/kg	8.5	2.5	1	09/25/18 08:51	09/26/18 15:40	53-70-3	
Fluoranthene	**171**	ug/kg	19.8	5.9	1	09/25/18 08:51	09/26/18 15:40	206-44-0	
Fluorene	**<4.7**	ug/kg	15.7	4.7	1	09/25/18 08:51	09/26/18 15:40	86-73-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Indeno(1,2,3-cd)pyrene	**44.3**	ug/kg	8.4	2.5	1	09/25/18 08:51	09/26/18 15:40	193-39-5	
1-Methylnaphthalene	**14.9J**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 15:40	90-12-0	
2-Methylnaphthalene	**21.5**	ug/kg	19.0	5.7	1	09/25/18 08:51	09/26/18 15:40	91-57-6	
Naphthalene	**29.7J**	ug/kg	32.0	9.6	1	09/25/18 08:51	09/26/18 15:40	91-20-3	
Phenanthrene	**79.9**	ug/kg	44.2	13.3	1	09/25/18 08:51	09/26/18 15:40	85-01-8	
Pyrene	**122**	ug/kg	17.1	5.1	1	09/25/18 08:51	09/26/18 15:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	10-115		1	09/25/18 08:51	09/26/18 15:40	321-60-8	
Terphenyl-d14 (S)	54	%	10-121		1	09/25/18 08:51	09/26/18 15:40	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:12	120-82-1	W
1,2,4-Trimethylbenzene	**35.4J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-63-6	
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:12	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	106-93-4	W
1,2-Dichlorobenzene	**332**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-50-1	
1,2-Dichloroethane	**39.6J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	142-28-9	W
1,4-Dichlorobenzene	**306**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	106-46-7	
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:12	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	56-23-5	W
Chlorobenzene	**243**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	108-90-7	
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:12	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:12	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-87-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	1634-04-4	W
Methylene Chloride	**56.8J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	75-09-2	B
Naphthalene	**430**	ug/kg	284	45.6	1	09/25/18 08:00	09/25/18 13:12	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	10061-01-5	W
m&p-Xylene	**91.0J**	ug/kg	137	56.9	1	09/25/18 08:00	09/25/18 13:12	179601-23-1	
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	103-65-1	W
o-Xylene	**57.1J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-47-6	
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	108	%	57-148		1	09/25/18 08:00	09/25/18 13:12	1868-53-7	
Toluene-d8 (S)	105	%	58-142		1	09/25/18 08:00	09/25/18 13:12	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 13:12	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.1**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.4**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:24	7440-38-2	
Barium	**57.6**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:24	7440-39-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Cadmium	**0.20J**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:24	7440-43-9	
Chromium	**14.7**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:24	7440-47-3	
Lead	**8.0**	mg/kg	2.2	0.67	1	09/26/18 07:12	09/28/18 10:24	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:24	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	09/26/18 07:12	09/28/18 10:24	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 09:48	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/25/18 15:25	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.0	3.9	1	09/25/18 08:51	09/25/18 15:25	208-96-8	
Anthracene	**<6.8**	ug/kg	22.5	6.8	1	09/25/18 08:51	09/25/18 15:25	120-12-7	
Benzo(a)anthracene	**<3.7**	ug/kg	12.5	3.7	1	09/25/18 08:51	09/25/18 15:25	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:25	50-32-8	
Benzo(b)fluoranthene	**<3.3**	ug/kg	11.1	3.3	1	09/25/18 08:51	09/25/18 15:25	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.0	2.4	1	09/25/18 08:51	09/25/18 15:25	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:25	207-08-9	
Chrysene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:25	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:25	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.6	6.2	1	09/25/18 08:51	09/25/18 15:25	206-44-0	
Fluorene	**<4.9**	ug/kg	16.3	4.9	1	09/25/18 08:51	09/25/18 15:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 15:25	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	15.8	4.8	1	09/25/18 08:51	09/25/18 15:25	90-12-0	
2-Methylnaphthalene	**<5.9**	ug/kg	19.7	5.9	1	09/25/18 08:51	09/25/18 15:25	91-57-6	
Naphthalene	**<10**	ug/kg	33.2	10	1	09/25/18 08:51	09/25/18 15:25	91-20-3	
Phenanthrene	**<13.8**	ug/kg	45.9	13.8	1	09/25/18 08:51	09/25/18 15:25	85-01-8	
Pyrene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/25/18 15:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/25/18 15:25	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/25/18 15:25	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:35	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:35	96-12-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-50-1	W
1,2-Dichloroethane	**174**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 13:35	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:35	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:35	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:35	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	1634-04-4	W
Methylene Chloride	**66.0J**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 13:35	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 13:35	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 13:35	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	99-87-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	115	%	57-148		1	09/25/18 08:00	09/25/18 13:35	1868-53-7	
Toluene-d8 (S)	109	%	58-142		1	09/25/18 08:00	09/25/18 13:35	2037-26-5	
4-Bromofluorobenzene (S)	90	%	48-130		1	09/25/18 08:00	09/25/18 13:35	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.4**	mg/kg	5.3	1.1	1	09/26/18 07:12	09/28/18 10:27	7440-38-2	
Barium	**52.3**	mg/kg	0.53	0.16	1	09/26/18 07:12	09/28/18 10:27	7440-39-3	
Cadmium	**0.20J**	mg/kg	0.53	0.14	1	09/26/18 07:12	09/28/18 10:27	7440-43-9	
Chromium	**15.9**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:27	7440-47-3	
Lead	**7.9**	mg/kg	2.1	0.64	1	09/26/18 07:12	09/28/18 10:27	7439-92-1	
Selenium	**<1.4**	mg/kg	4.6	1.4	1	09/26/18 07:12	09/28/18 10:27	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:27	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.038**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:50	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.2	4.6	1	09/25/18 08:51	09/25/18 15:42	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.0	3.9	1	09/25/18 08:51	09/25/18 15:42	208-96-8	
Anthracene	**<6.7**	ug/kg	22.4	6.7	1	09/25/18 08:51	09/25/18 15:42	120-12-7	
Benzo(a)anthracene	**<3.7**	ug/kg	12.5	3.7	1	09/25/18 08:51	09/25/18 15:42	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:42	50-32-8	
Benzo(b)fluoranthene	**<3.3**	ug/kg	11.1	3.3	1	09/25/18 08:51	09/25/18 15:42	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.0	2.4	1	09/25/18 08:51	09/25/18 15:42	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:42	207-08-9	
Chrysene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:42	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:42	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.6	6.2	1	09/25/18 08:51	09/25/18 15:42	206-44-0	
Fluorene	**<4.9**	ug/kg	16.3	4.9	1	09/25/18 08:51	09/25/18 15:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 15:42	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
1-Methylnaphthalene	**<4.8**	ug/kg	15.8	4.8	1	09/25/18 08:51	09/25/18 15:42	90-12-0	
2-Methylnaphthalene	**<5.9**	ug/kg	19.7	5.9	1	09/25/18 08:51	09/25/18 15:42	91-57-6	
Naphthalene	**<9.9**	ug/kg	33.2	9.9	1	09/25/18 08:51	09/25/18 15:42	91-20-3	
Phenanthrene	**<13.8**	ug/kg	45.8	13.8	1	09/25/18 08:51	09/25/18 15:42	85-01-8	
Pyrene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/25/18 15:42	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	46	%	10-115		1	09/25/18 08:51	09/25/18 15:42	321-60-8	
Terphenyl-d14 (S)	50	%	10-121		1	09/25/18 08:51	09/25/18 15:42	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:58	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:58	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:58	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:58	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:58	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	124-48-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	1634-04-4	W
Methylene Chloride	**56.3J**	ug/kg	70.8	29.5	1	09/25/18 08:00	09/25/18 13:58	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 13:58	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 13:58	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	109	%	57-148		1	09/25/18 08:00	09/25/18 13:58	1868-53-7	
Toluene-d8 (S)	107	%	58-142		1	09/25/18 08:00	09/25/18 13:58	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 13:58	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.0J**	mg/kg	5.4	1.1	1	09/26/18 07:12	09/28/18 10:34	7440-38-2	
Barium	**11.7**	mg/kg	0.54	0.16	1	09/26/18 07:12	09/28/18 10:34	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.54	0.14	1	09/26/18 07:12	09/28/18 10:34	7440-43-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	**8.4**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:34	7440-47-3	
Lead	**3.8**	mg/kg	2.2	0.65	1	09/26/18 07:12	09/28/18 10:34	7439-92-1	
Selenium	**<1.4**	mg/kg	4.7	1.4	1	09/26/18 07:12	09/28/18 10:34	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:34	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.035**	mg/kg	0.12	0.035	1	09/25/18 12:34	09/26/18 09:53	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/26/18 15:58	83-32-9	
Acenaphthylene	**<3.7**	ug/kg	12.2	3.7	1	09/25/18 08:51	09/26/18 15:58	208-96-8	
Anthracene	**<6.3**	ug/kg	21.1	6.3	1	09/25/18 08:51	09/26/18 15:58	120-12-7	
Benzo(a)anthracene	**20.4**	ug/kg	11.8	3.5	1	09/25/18 08:51	09/26/18 15:58	56-55-3	
Benzo(a)pyrene	**22.5**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 15:58	50-32-8	
Benzo(b)fluoranthene	**33.6**	ug/kg	10.4	3.1	1	09/25/18 08:51	09/26/18 15:58	205-99-2	
Benzo(g,h,i)perylene	**12.9**	ug/kg	7.5	2.3	1	09/25/18 08:51	09/26/18 15:58	191-24-2	
Benzo(k)fluoranthene	**14.0**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 15:58	207-08-9	
Chrysene	**27.7**	ug/kg	12.4	3.7	1	09/25/18 08:51	09/26/18 15:58	218-01-9	
Dibenz(a,h)anthracene	**3.7J**	ug/kg	8.3	2.5	1	09/25/18 08:51	09/26/18 15:58	53-70-3	
Fluoranthene	**53.5**	ug/kg	19.3	5.8	1	09/25/18 08:51	09/26/18 15:58	206-44-0	
Fluorene	**<4.6**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 15:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.2**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/26/18 15:58	193-39-5	
1-Methylnaphthalene	**<4.5**	ug/kg	14.9	4.5	1	09/25/18 08:51	09/26/18 15:58	90-12-0	
2-Methylnaphthalene	**<5.5**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/26/18 15:58	91-57-6	
Naphthalene	**<9.3**	ug/kg	31.2	9.3	1	09/25/18 08:51	09/26/18 15:58	91-20-3	
Phenanthrene	**<12.9**	ug/kg	43.0	12.9	1	09/25/18 08:51	09/26/18 15:58	85-01-8	
Pyrene	**43.3**	ug/kg	16.6	5.0	1	09/25/18 08:51	09/26/18 15:58	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%	10-115		1	09/25/18 08:51	09/26/18 15:58	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 15:58	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 14:21	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 14:21	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-93-4	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 14:21	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 14:21	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 14:21	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	1634-04-4	W
Methylene Chloride	**67.5**	ug/kg	66.6	27.7	1	09/25/18 08:00	09/25/18 14:21	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 14:21	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 14:21	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	135-98-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	57-148		1	09/25/18 08:00	09/25/18 14:21	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 14:21	2037-26-5	
4-Bromofluorobenzene (S)	81	%	48-130		1	09/25/18 08:00	09/25/18 14:21	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.9**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.1J**	mg/kg	10.2	2.1	2	09/26/18 07:12	10/02/18 18:18	7440-38-2	D3
Barium	**14.7**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:18	7440-39-3	
Cadmium	**<0.27**	mg/kg	1.0	0.27	2	09/26/18 07:12	10/02/18 18:18	7440-43-9	D3
Chromium	**6.9**	mg/kg	2.0	0.57	2	09/26/18 07:12	10/02/18 18:18	7440-47-3	
Lead	**4.1**	mg/kg	4.1	1.2	2	09/26/18 07:12	10/02/18 18:18	7439-92-1	
Selenium	**<2.7**	mg/kg	8.9	2.7	2	09/26/18 07:12	10/02/18 18:18	7782-49-2	D3
Silver	**<0.70**	mg/kg	2.0	0.70	2	09/26/18 07:12	10/02/18 18:18	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.034**	mg/kg	0.11	0.034	1	09/25/18 12:34	09/26/18 09:55	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/26/18 16:15	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.6	3.5	1	09/25/18 08:51	09/26/18 16:15	208-96-8	
Anthracene	**<6.0**	ug/kg	20.1	6.0	1	09/25/18 08:51	09/26/18 16:15	120-12-7	
Benzo(a)anthracene	**19.8**	ug/kg	11.2	3.4	1	09/25/18 08:51	09/26/18 16:15	56-55-3	
Benzo(a)pyrene	**22.5**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 16:15	50-32-8	
Benzo(b)fluoranthene	**30.1**	ug/kg	10	3.0	1	09/25/18 08:51	09/26/18 16:15	205-99-2	
Benzo(g,h,i)perylene	**13.4**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/26/18 16:15	191-24-2	
Benzo(k)fluoranthene	**13.8**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 16:15	207-08-9	
Chrysene	**20.2**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/26/18 16:15	218-01-9	
Dibenz(a,h)anthracene	**3.3J**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/26/18 16:15	53-70-3	
Fluoranthene	**37.6**	ug/kg	18.4	5.5	1	09/25/18 08:51	09/26/18 16:15	206-44-0	
Fluorene	**<4.4**	ug/kg	14.6	4.4	1	09/25/18 08:51	09/26/18 16:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.2**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/26/18 16:15	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.2	4.3	1	09/25/18 08:51	09/26/18 16:15	90-12-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
2-Methylnaphthalene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/26/18 16:15	91-57-6	
Naphthalene	**<8.9**	ug/kg	29.8	8.9	1	09/25/18 08:51	09/26/18 16:15	91-20-3	
Phenanthrene	**<12.3**	ug/kg	41.1	12.3	1	09/25/18 08:51	09/26/18 16:15	85-01-8	
Pyrene	**31.8**	ug/kg	15.9	4.8	1	09/25/18 08:51	09/26/18 16:15	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	09/25/18 08:51	09/26/18 16:15	321-60-8	
Terphenyl-d14 (S)	64	%	10-121		1	09/25/18 08:51	09/26/18 16:15	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 14:44	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 14:44	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 14:44	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 14:44	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 14:44	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-95-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	1634-04-4	W
Methylene Chloride	**51.6J**	ug/kg	63.5	26.4	1	09/25/18 08:00	09/25/18 14:44	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 14:44	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 14:44	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	112	%	57-148		1	09/25/18 08:00	09/25/18 14:44	1868-53-7	
Toluene-d8 (S)	108	%	58-142		1	09/25/18 08:00	09/25/18 14:44	2037-26-5	
4-Bromofluorobenzene (S)	83	%	48-130		1	09/25/18 08:00	09/25/18 14:44	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.5**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.9J**	mg/kg	10.3	2.2	2	09/26/18 07:12	10/02/18 18:20	7440-38-2	D3
Barium	**45.2**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:20	7440-39-3	
Cadmium	**<0.27**	mg/kg	1.0	0.27	2	09/26/18 07:12	10/02/18 18:20	7440-43-9	D3
Chromium	**9.0**	mg/kg	2.1	0.57	2	09/26/18 07:12	10/02/18 18:20	7440-47-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**5.2**	mg/kg	4.1	1.2	2	09/26/18 07:12	10/02/18 18:20	7439-92-1	
Selenium	**<2.7**	mg/kg	9.0	2.7	2	09/26/18 07:12	10/02/18 18:20	7782-49-2	D3
Silver	**<0.71**	mg/kg	2.1	0.71	2	09/26/18 07:12	10/02/18 18:20	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.039**	mg/kg	0.13	0.039	1	09/25/18 12:34	09/26/18 09:57	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**5.3J**	ug/kg	14.4	4.3	1	09/25/18 08:51	09/26/18 16:32	83-32-9	
Acenaphthylene	**<3.7**	ug/kg	12.3	3.7	1	09/25/18 08:51	09/26/18 16:32	208-96-8	
Anthracene	**12.1J**	ug/kg	21.2	6.4	1	09/25/18 08:51	09/26/18 16:32	120-12-7	
Benzo(a)anthracene	**19.8**	ug/kg	11.8	3.5	1	09/25/18 08:51	09/26/18 16:32	56-55-3	
Benzo(a)pyrene	**15.1**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 16:32	50-32-8	
Benzo(b)fluoranthene	**24.8**	ug/kg	10.5	3.2	1	09/25/18 08:51	09/26/18 16:32	205-99-2	
Benzo(g,h,i)perylene	**7.0J**	ug/kg	7.6	2.3	1	09/25/18 08:51	09/26/18 16:32	191-24-2	
Benzo(k)fluoranthene	**9.8**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 16:32	207-08-9	
Chrysene	**26.9**	ug/kg	12.5	3.8	1	09/25/18 08:51	09/26/18 16:32	218-01-9	
Dibenz(a,h)anthracene	**<2.5**	ug/kg	8.3	2.5	1	09/25/18 08:51	09/26/18 16:32	53-70-3	
Fluoranthene	**78.1**	ug/kg	19.4	5.8	1	09/25/18 08:51	09/26/18 16:32	206-44-0	
Fluorene	**5.4J**	ug/kg	15.4	4.6	1	09/25/18 08:51	09/26/18 16:32	86-73-7	
Indeno(1,2,3-cd)pyrene	**5.9J**	ug/kg	8.2	2.5	1	09/25/18 08:51	09/26/18 16:32	193-39-5	
1-Methylnaphthalene	**<4.5**	ug/kg	14.9	4.5	1	09/25/18 08:51	09/26/18 16:32	90-12-0	
2-Methylnaphthalene	**<5.6**	ug/kg	18.6	5.6	1	09/25/18 08:51	09/26/18 16:32	91-57-6	
Naphthalene	**<9.4**	ug/kg	31.3	9.4	1	09/25/18 08:51	09/26/18 16:32	91-20-3	
Phenanthrene	**50.8**	ug/kg	43.3	13.0	1	09/25/18 08:51	09/26/18 16:32	85-01-8	
Pyrene	**51.9**	ug/kg	16.7	5.0	1	09/25/18 08:51	09/26/18 16:32	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	10-115		1	09/25/18 08:51	09/26/18 16:32	321-60-8	
Terphenyl-d14 (S)	59	%	10-121		1	09/25/18 08:51	09/26/18 16:32	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 15:07	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 15:07	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-50-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 15:07	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 15:07	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 15:07	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	1634-04-4	W
Methylene Chloride	**63.8J**	ug/kg	66.9	27.9	1	09/25/18 08:00	09/25/18 15:07	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 15:07	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 15:07	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	98-06-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	106	%	57-148		1	09/25/18 08:00	09/25/18 15:07	1868-53-7	
Toluene-d8 (S)	101	%	58-142		1	09/25/18 08:00	09/25/18 15:07	2037-26-5	
4-Bromofluorobenzene (S)	82	%	48-130		1	09/25/18 08:00	09/25/18 15:07	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.3**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.3J**	mg/kg	10.8	2.3	2	09/26/18 07:12	10/02/18 18:23	7440-38-2	D3
Barium	**12.9**	mg/kg	1.1	0.32	2	09/26/18 07:12	10/02/18 18:23	7440-39-3	
Cadmium	**<0.29**	mg/kg	1.1	0.29	2	09/26/18 07:12	10/02/18 18:23	7440-43-9	D3
Chromium	**7.6**	mg/kg	2.2	0.60	2	09/26/18 07:12	10/02/18 18:23	7440-47-3	
Lead	**1.9J**	mg/kg	4.3	1.3	2	09/26/18 07:12	10/02/18 18:23	7439-92-1	D3
Selenium	**<2.8**	mg/kg	9.4	2.8	2	09/26/18 07:12	10/02/18 18:23	7782-49-2	D3
Silver	**<0.74**	mg/kg	2.2	0.74	2	09/26/18 07:12	10/02/18 18:23	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.039**	mg/kg	0.13	0.039	1	09/25/18 12:34	09/26/18 09:59	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**12.7J**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 16:50	83-32-9	
Acenaphthylene	**5.4J**	ug/kg	12.6	3.8	1	09/25/18 08:51	09/26/18 16:50	208-96-8	
Anthracene	**44.9**	ug/kg	21.7	6.5	1	09/25/18 08:51	09/26/18 16:50	120-12-7	
Benzo(a)anthracene	**136**	ug/kg	12.1	3.6	1	09/25/18 08:51	09/26/18 16:50	56-55-3	
Benzo(a)pyrene	**142**	ug/kg	9.6	2.9	1	09/25/18 08:51	09/26/18 16:50	50-32-8	
Benzo(b)fluoranthene	**234**	ug/kg	10.7	3.2	1	09/25/18 08:51	09/26/18 16:50	205-99-2	
Benzo(g,h,i)perylene	**61.2**	ug/kg	7.7	2.3	1	09/25/18 08:51	09/26/18 16:50	191-24-2	
Benzo(k)fluoranthene	**77.4**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 16:50	207-08-9	
Chrysene	**173**	ug/kg	12.8	3.9	1	09/25/18 08:51	09/26/18 16:50	218-01-9	
Dibenz(a,h)anthracene	**15.9**	ug/kg	8.5	2.6	1	09/25/18 08:51	09/26/18 16:50	53-70-3	
Fluoranthene	**360**	ug/kg	19.9	5.9	1	09/25/18 08:51	09/26/18 16:50	206-44-0	
Fluorene	**11.3J**	ug/kg	15.8	4.7	1	09/25/18 08:51	09/26/18 16:50	86-73-7	
Indeno(1,2,3-cd)pyrene	**41.2**	ug/kg	8.4	2.5	1	09/25/18 08:51	09/26/18 16:50	193-39-5	
1-Methylnaphthalene	**13.7J**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 16:50	90-12-0	
2-Methylnaphthalene	**20.9**	ug/kg	19.1	5.7	1	09/25/18 08:51	09/26/18 16:50	91-57-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Naphthalene	**<9.6**	ug/kg	32.1	9.6	1	09/25/18 08:51	09/26/18 16:50	91-20-3	
Phenanthrene	**212**	ug/kg	44.3	13.3	1	09/25/18 08:51	09/26/18 16:50	85-01-8	
Pyrene	**271**	ug/kg	17.1	5.2	1	09/25/18 08:51	09/26/18 16:50	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/26/18 16:50	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 16:50	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 15:30	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 15:30	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 15:30	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 15:30	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 15:30	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-71-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	1634-04-4	W
Methylene Chloride	**57.3J**	ug/kg	68.6	28.6	1	09/25/18 08:00	09/25/18 15:30	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 15:30	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 15:30	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	57-148		1	09/25/18 08:00	09/25/18 15:30	1868-53-7	
Toluene-d8 (S)	100	%	58-142		1	09/25/18 08:00	09/25/18 15:30	2037-26-5	
4-Bromofluorobenzene (S)	81	%	48-130		1	09/25/18 08:00	09/25/18 15:30	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.5**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.9J**	mg/kg	10.5	2.2	2	09/26/18 07:12	10/02/18 18:25	7440-38-2	D3
Barium	**8.9**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:25	7440-39-3	
Cadmium	**<0.28**	mg/kg	1.0	0.28	2	09/26/18 07:12	10/02/18 18:25	7440-43-9	D3
Chromium	**4.5**	mg/kg	2.1	0.58	2	09/26/18 07:12	10/02/18 18:25	7440-47-3	
Lead	**7.0**	mg/kg	4.2	1.3	2	09/26/18 07:12	10/02/18 18:25	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Selenium	**<2.7**	mg/kg	9.1	2.7	2	09/26/18 07:12	10/02/18 18:25	7782-49-2	D3
Silver	**<0.72**	mg/kg	2.1	0.72	2	09/26/18 07:12	10/02/18 18:25	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.034**	mg/kg	0.11	0.034	1	09/25/18 12:34	09/26/18 10:02	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/26/18 17:07	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.7	3.5	1	09/25/18 08:51	09/26/18 17:07	208-96-8	
Anthracene	**7.9J**	ug/kg	20.2	6.1	1	09/25/18 08:51	09/26/18 17:07	120-12-7	
Benzo(a)anthracene	**26.1**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/26/18 17:07	56-55-3	
Benzo(a)pyrene	**26.5**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 17:07	50-32-8	
Benzo(b)fluoranthene	**41.4**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/26/18 17:07	205-99-2	
Benzo(g,h,i)perylene	**10.5**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/26/18 17:07	191-24-2	
Benzo(k)fluoranthene	**14.6**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 17:07	207-08-9	
Chrysene	**34.1**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/26/18 17:07	218-01-9	
Dibenz(a,h)anthracene	**2.8J**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/26/18 17:07	53-70-3	
Fluoranthene	**60.9**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/26/18 17:07	206-44-0	
Fluorene	**<4.4**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 17:07	86-73-7	
Indeno(1,2,3-cd)pyrene	**7.4J**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/26/18 17:07	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/26/18 17:07	90-12-0	
2-Methylnaphthalene	**<5.3**	ug/kg	17.8	5.3	1	09/25/18 08:51	09/26/18 17:07	91-57-6	
Naphthalene	**<9.0**	ug/kg	29.9	9.0	1	09/25/18 08:51	09/26/18 17:07	91-20-3	
Phenanthrene	**32.6J**	ug/kg	41.3	12.4	1	09/25/18 08:51	09/26/18 17:07	85-01-8	
Pyrene	**46.9**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/26/18 17:07	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/26/18 17:07	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 17:07	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 16:06	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:06	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	107-06-2	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:06	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:06	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:06	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	1634-04-4	W
Methylene Chloride	**44.0J**	ug/kg	63.9	26.6	1	09/25/18 08:00	09/25/18 16:06	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 16:06	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 16:06	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	156-60-5	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	110	%	57-148		1	09/25/18 08:00	09/25/18 16:06	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 16:06	2037-26-5	
4-Bromofluorobenzene (S)	85	%	48-130		1	09/25/18 08:00	09/25/18 16:06	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.1**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**9.1**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:46	7440-38-2	
Barium	**660**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:46	7440-39-3	
Cadmium	**104**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:46	7440-43-9	
Chromium	**214**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:46	7440-47-3	
Lead	**8250**	mg/kg	225	67.5	100	09/26/18 07:12	10/02/18 18:28	7439-92-1	
Selenium	**3.9J**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:46	7782-49-2	
Silver	**1.1**	mg/kg	1.1	0.39	1	09/26/18 07:12	09/28/18 10:46	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.22**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 10:04	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**538**	ug/kg	297	89.4	20	09/25/18 09:33	09/26/18 13:06	83-32-9	
Acenaphthylene	**90.8J**	ug/kg	253	75.9	20	09/25/18 09:33	09/26/18 13:06	208-96-8	
Anthracene	**1400**	ug/kg	438	132	20	09/25/18 09:33	09/26/18 13:06	120-12-7	
Benzo(a)anthracene	**2090**	ug/kg	244	73.1	20	09/25/18 09:33	09/26/18 13:06	56-55-3	
Benzo(a)pyrene	**2190**	ug/kg	193	57.9	20	09/25/18 09:33	09/26/18 13:06	50-32-8	
Benzo(b)fluoranthene	**2740**	ug/kg	217	65.1	20	09/25/18 09:33	09/26/18 13:06	205-99-2	
Benzo(g,h,i)perylene	**1560**	ug/kg	156	46.8	20	09/25/18 09:33	09/26/18 13:06	191-24-2	
Benzo(k)fluoranthene	**1230**	ug/kg	193	57.8	20	09/25/18 09:33	09/26/18 13:06	207-08-9	
Chrysene	**2410**	ug/kg	258	77.7	20	09/25/18 09:33	09/26/18 13:06	218-01-9	
Dibenz(a,h)anthracene	**306**	ug/kg	172	51.5	20	09/25/18 09:33	09/26/18 13:06	53-70-3	
Fluoranthene	**6770**	ug/kg	401	120	20	09/25/18 09:33	09/26/18 13:06	206-44-0	
Fluorene	**756**	ug/kg	318	95.4	20	09/25/18 09:33	09/26/18 13:06	86-73-7	
Indeno(1,2,3-cd)pyrene	**1190**	ug/kg	169	50.7	20	09/25/18 09:33	09/26/18 13:06	193-39-5	
1-Methylnaphthalene	**323**	ug/kg	309	92.7	20	09/25/18 09:33	09/26/18 13:06	90-12-0	
2-Methylnaphthalene	**564**	ug/kg	385	115	20	09/25/18 09:33	09/26/18 13:06	91-57-6	
Naphthalene	**1090**	ug/kg	647	194	20	09/25/18 09:33	09/26/18 13:06	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Phenanthrene	**4110**	ug/kg	894	268	20	09/25/18 09:33	09/26/18 13:06	85-01-8	
Pyrene	**5080**	ug/kg	346	104	20	09/25/18 09:33	09/26/18 13:06	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	39	%	10-115		20	09/25/18 09:33	09/26/18 13:06	321-60-8	
Terphenyl-d14 (S)	34	%	10-121		20	09/25/18 09:33	09/26/18 13:06	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	96-18-4	W
1,2,4-Trichlorobenzene	**102J**	ug/kg	288	54.8	1	09/25/18 08:00	09/25/18 16:29	120-82-1	
1,2,4-Trimethylbenzene	**77.3**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-63-6	
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:29	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	106-93-4	W
1,2-Dichlorobenzene	**1290**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-50-1	
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	78-87-5	W
1,3,5-Trimethylbenzene	**44.4J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-67-8	
1,3-Dichlorobenzene	**88.4**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	541-73-1	
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	142-28-9	W
1,4-Dichlorobenzene	**1170**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	106-46-7	
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:29	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	56-23-5	W
Chlorobenzene	**1430**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-90-7	
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:29	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:29	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	108-20-3	W

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Ethylbenzene	**130**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	100-41-4	
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	1634-04-4	W
Methylene Chloride	**60.1J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	75-09-2	B
Naphthalene	**1140**	ug/kg	288	46.2	1	09/25/18 08:00	09/25/18 16:29	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	127-18-4	W
Toluene	**136**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-88-3	
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	10061-01-5	W
m&p-Xylene	**254**	ug/kg	138	57.6	1	09/25/18 08:00	09/25/18 16:29	179601-23-1	
n-Butylbenzene	**40.6J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	104-51-8	
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	103-65-1	W
o-Xylene	**134**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-47-6	
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	129	%	57-148		1	09/25/18 08:00	09/25/18 16:29	1868-53-7	
Toluene-d8 (S)	127	%	58-142		1	09/25/18 08:00	09/25/18 16:29	2037-26-5	
4-Bromofluorobenzene (S)	106	%	48-130		1	09/25/18 08:00	09/25/18 16:29	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.3**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.4**	mg/kg	5.8	1.2	1	09/26/18 07:12	09/28/18 10:49	7440-38-2	
Barium	**61.9**	mg/kg	0.58	0.17	1	09/26/18 07:12	09/28/18 10:49	7440-39-3	
Cadmium	**0.39J**	mg/kg	0.58	0.15	1	09/26/18 07:12	09/28/18 10:49	7440-43-9	
Chromium	**16.6**	mg/kg	1.2	0.32	1	09/26/18 07:12	09/28/18 10:49	7440-47-3	
Lead	**17.9**	mg/kg	2.3	0.69	1	09/26/18 07:12	09/28/18 10:49	7439-92-1	
Selenium	**<1.5**	mg/kg	5.0	1.5	1	09/26/18 07:12	09/28/18 10:49	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Silver	**<0.40**	mg/kg	1.2	0.40	1	09/26/18 07:12	09/28/18 10:49	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.036**	mg/kg	0.12	0.036	1	09/25/18 12:34	09/26/18 10:06	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**884**	ug/kg	382	115	25	09/25/18 09:33	09/26/18 12:31	83-32-9	
Acenaphthylene	**207J**	ug/kg	326	97.6	25	09/25/18 09:33	09/26/18 12:31	208-96-8	
Anthracene	**384J**	ug/kg	563	169	25	09/25/18 09:33	09/26/18 12:31	120-12-7	
Benzo(a)anthracene	**<93.9**	ug/kg	314	93.9	25	09/25/18 09:33	09/26/18 12:31	56-55-3	
Benzo(a)pyrene	**<74.4**	ug/kg	248	74.4	25	09/25/18 09:33	09/26/18 12:31	50-32-8	
Benzo(b)fluoranthene	**<83.6**	ug/kg	279	83.6	25	09/25/18 09:33	09/26/18 12:31	205-99-2	
Benzo(g,h,i)perylene	**<60.2**	ug/kg	201	60.2	25	09/25/18 09:33	09/26/18 12:31	191-24-2	
Benzo(k)fluoranthene	**<74.3**	ug/kg	248	74.3	25	09/25/18 09:33	09/26/18 12:31	207-08-9	
Chrysene	**<99.9**	ug/kg	332	99.9	25	09/25/18 09:33	09/26/18 12:31	218-01-9	
Dibenz(a,h)anthracene	**<66.2**	ug/kg	221	66.2	25	09/25/18 09:33	09/26/18 12:31	53-70-3	
Fluoranthene	**<154**	ug/kg	515	154	25	09/25/18 09:33	09/26/18 12:31	206-44-0	
Fluorene	**996**	ug/kg	409	123	25	09/25/18 09:33	09/26/18 12:31	86-73-7	
Indeno(1,2,3-cd)pyrene	**<65.1**	ug/kg	217	65.1	25	09/25/18 09:33	09/26/18 12:31	193-39-5	
1-Methylnaphthalene	**9270**	ug/kg	397	119	25	09/25/18 09:33	09/26/18 12:31	90-12-0	
2-Methylnaphthalene	**16900**	ug/kg	495	148	25	09/25/18 09:33	09/26/18 12:31	91-57-6	
Naphthalene	**3510**	ug/kg	832	249	25	09/25/18 09:33	09/26/18 12:31	91-20-3	
Phenanthrene	**3260**	ug/kg	1150	345	25	09/25/18 09:33	09/26/18 12:31	85-01-8	
Pyrene	**175J**	ug/kg	444	134	25	09/25/18 09:33	09/26/18 12:31	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	87	%	10-115		25	09/25/18 09:33	09/26/18 12:31	321-60-8	
Terphenyl-d14 (S)	70	%	10-121		25	09/25/18 09:33	09/26/18 12:31	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 16:52	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:52	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	78-87-5	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:52	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:52	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:52	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	1634-04-4	W
Methylene Chloride	**49.8J**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 16:52	75-09-2	B
Naphthalene	**106J**	ug/kg	296	47.4	1	09/25/18 08:00	09/25/18 16:52	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 16:52	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	10061-02-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Surrogates									
Dibromofluoromethane (S)	109	%	57-148		1	09/25/18 08:00	09/25/18 16:52	1868-53-7	
Toluene-d8 (S)	108	%	58-142		1	09/25/18 08:00	09/25/18 16:52	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 16:52	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.2J**	mg/kg	5.4	1.1	1	09/26/18 07:12	09/28/18 10:51	7440-38-2	
Barium	**66.8**	mg/kg	0.54	0.16	1	09/26/18 07:12	09/28/18 10:51	7440-39-3	
Cadmium	**0.36J**	mg/kg	0.54	0.14	1	09/26/18 07:12	09/28/18 10:51	7440-43-9	
Chromium	**18.2**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:51	7440-47-3	
Lead	**50.3**	mg/kg	2.2	0.65	1	09/26/18 07:12	09/28/18 10:51	7439-92-1	
Selenium	**<1.4**	mg/kg	4.7	1.4	1	09/26/18 07:12	09/28/18 10:51	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:51	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.069J**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 10:13	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**185**	ug/kg	57.6	17.3	4	09/25/18 09:33	09/26/18 14:49	83-32-9	
Acenaphthylene	**34.0J**	ug/kg	49.1	14.7	4	09/25/18 09:33	09/26/18 14:49	208-96-8	
Anthracene	**322**	ug/kg	84.8	25.5	4	09/25/18 09:33	09/26/18 14:49	120-12-7	
Benzo(a)anthracene	**729**	ug/kg	47.3	14.2	4	09/25/18 09:33	09/26/18 14:49	56-55-3	
Benzo(a)pyrene	**744**	ug/kg	37.4	11.2	4	09/25/18 09:33	09/26/18 14:49	50-32-8	
Benzo(b)fluoranthene	**905**	ug/kg	42.0	12.6	4	09/25/18 09:33	09/26/18 14:49	205-99-2	
Benzo(g,h,i)perylene	**420**	ug/kg	30.2	9.1	4	09/25/18 09:33	09/26/18 14:49	191-24-2	
Benzo(k)fluoranthene	**425**	ug/kg	37.3	11.2	4	09/25/18 09:33	09/26/18 14:49	207-08-9	
Chrysene	**827**	ug/kg	50.0	15.1	4	09/25/18 09:33	09/26/18 14:49	218-01-9	
Dibenz(a,h)anthracene	**111**	ug/kg	33.3	10	4	09/25/18 09:33	09/26/18 14:49	53-70-3	
Fluoranthene	**1630**	ug/kg	77.7	23.2	4	09/25/18 09:33	09/26/18 14:49	206-44-0	
Fluorene	**26.2J**	ug/kg	61.6	18.5	4	09/25/18 09:33	09/26/18 14:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**369**	ug/kg	32.7	9.8	4	09/25/18 09:33	09/26/18 14:49	193-39-5	
1-Methylnaphthalene	**37.7J**	ug/kg	59.8	18.0	4	09/25/18 09:33	09/26/18 14:49	90-12-0	
2-Methylnaphthalene	**<22.3**	ug/kg	74.5	22.3	4	09/25/18 09:33	09/26/18 14:49	91-57-6	
Naphthalene	**<37.6**	ug/kg	125	37.6	4	09/25/18 09:33	09/26/18 14:49	91-20-3	
Phenanthrene	**576**	ug/kg	173	52.0	4	09/25/18 09:33	09/26/18 14:49	85-01-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Pyrene	**1220**	ug/kg	67.0	20.1	4	09/25/18 09:33	09/26/18 14:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	10-115		4	09/25/18 09:33	09/26/18 14:49	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		4	09/25/18 09:33	09/26/18 14:49	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 19:11	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 19:11	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 19:11	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 19:11	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 19:11	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	100-41-4	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	1634-04-4	W
Methylene Chloride	**64.1J**	ug/kg	67.0	27.9	1	09/25/18 08:00	09/25/18 19:11	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 19:11	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 19:11	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	116	%	57-148		1	09/25/18 08:00	09/25/18 19:11	1868-53-7	
Toluene-d8 (S)	113	%	58-142		1	09/25/18 08:00	09/25/18 19:11	2037-26-5	
4-Bromofluorobenzene (S)	89	%	48-130		1	09/25/18 08:00	09/25/18 19:11	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.4**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.8J**	mg/kg	5.5	1.1	1	09/26/18 07:12	09/28/18 10:54	7440-38-2	
Barium	**75.2**	mg/kg	0.55	0.16	1	09/26/18 07:12	09/28/18 10:54	7440-39-3	
Cadmium	**0.25J**	mg/kg	0.55	0.15	1	09/26/18 07:12	09/28/18 10:54	7440-43-9	
Chromium	**20.7**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:54	7440-47-3	
Lead	**11.7**	mg/kg	2.2	0.66	1	09/26/18 07:12	09/28/18 10:54	7439-92-1	
Selenium	**<1.4**	mg/kg	4.8	1.4	1	09/26/18 07:12	09/28/18 10:54	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	09/26/18 07:12	09/28/18 10:54	7440-22-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 10:16	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.7**	ug/kg	15.6	4.7	1	09/25/18 09:33	09/26/18 11:40	83-32-9	
Acenaphthylene	**<4.0**	ug/kg	13.3	4.0	1	09/25/18 09:33	09/26/18 11:40	208-96-8	
Anthracene	**<6.9**	ug/kg	23.0	6.9	1	09/25/18 09:33	09/26/18 11:40	120-12-7	
Benzo(a)anthracene	**5.6J**	ug/kg	12.8	3.8	1	09/25/18 09:33	09/26/18 11:40	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 09:33	09/26/18 11:40	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.4	3.4	1	09/25/18 09:33	09/26/18 11:40	205-99-2	
Benzo(g,h,i)perylene	**<2.5**	ug/kg	8.2	2.5	1	09/25/18 09:33	09/26/18 11:40	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 09:33	09/26/18 11:40	207-08-9	
Chrysene	**<4.1**	ug/kg	13.6	4.1	1	09/25/18 09:33	09/26/18 11:40	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	9.0	2.7	1	09/25/18 09:33	09/26/18 11:40	53-70-3	
Fluoranthene	**6.6J**	ug/kg	21.1	6.3	1	09/25/18 09:33	09/26/18 11:40	206-44-0	
Fluorene	**<5.0**	ug/kg	16.7	5.0	1	09/25/18 09:33	09/26/18 11:40	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 09:33	09/26/18 11:40	193-39-5	
1-Methylnaphthalene	**<4.9**	ug/kg	16.2	4.9	1	09/25/18 09:33	09/26/18 11:40	90-12-0	
2-Methylnaphthalene	**<6.1**	ug/kg	20.2	6.1	1	09/25/18 09:33	09/26/18 11:40	91-57-6	
Naphthalene	**<10.2**	ug/kg	34.0	10.2	1	09/25/18 09:33	09/26/18 11:40	91-20-3	
Phenanthrene	**<14.1**	ug/kg	47.0	14.1	1	09/25/18 09:33	09/26/18 11:40	85-01-8	
Pyrene	**5.8J**	ug/kg	18.2	5.5	1	09/25/18 09:33	09/26/18 11:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	09/25/18 09:33	09/26/18 11:40	321-60-8	
Terphenyl-d14 (S)	61	%	10-121		1	09/25/18 09:33	09/26/18 11:40	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 17:15	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 17:15	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-50-1	W
1,2-Dichloroethane	**115**	ug/kg	72.7	30.3	1	09/25/18 08:00	09/25/18 17:15	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	142-28-9	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 17:15	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 17:15	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 17:15	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	1634-04-4	W
Methylene Chloride	**59.7J**	ug/kg	72.7	30.3	1	09/25/18 08:00	09/25/18 17:15	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 17:15	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 17:15	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	103	%	57-148		1	09/25/18 08:00	09/25/18 17:15	1868-53-7	
Toluene-d8 (S)	96	%	58-142		1	09/25/18 08:00	09/25/18 17:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Surrogates									
4-Bromofluorobenzene (S)	79	%	48-130		1	09/25/18 08:00	09/25/18 17:15	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		09/25/18 14:49		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301143 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758834 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.035	0.12	09/26/18 09:18	

LABORATORY CONTROL SAMPLE: 1758835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.83	0.85	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758836 1758837

Parameter	Units	40176292001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	<0.042	1	1	1.1	1.1	102	102	85-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301034 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758360 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	09/28/18 10:05	
Barium	mg/kg	<0.15	0.50	09/28/18 10:05	
Cadmium	mg/kg	<0.13	0.50	09/28/18 10:05	
Chromium	mg/kg	<0.28	1.0	09/28/18 10:05	
Lead	mg/kg	<0.60	2.0	09/28/18 10:05	
Selenium	mg/kg	<1.3	4.4	09/28/18 10:05	
Silver	mg/kg	<0.34	1.0	09/28/18 10:05	

LABORATORY CONTROL SAMPLE: 1758361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.3	101	80-120	
Barium	mg/kg	50	50.2	100	80-120	
Cadmium	mg/kg	50	49.7	99	80-120	
Chromium	mg/kg	50	50.6	101	80-120	
Lead	mg/kg	50	49.6	99	80-120	
Selenium	mg/kg	50	51.0	102	80-120	
Silver	mg/kg	25	25.1	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758362 1758363

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	8.0	59.7	59.5	63.5	61.7	93	90	75-125	3	20	
Barium	mg/kg	72.1	59.7	59.5	136	130	106	98	75-125	4	20	
Cadmium	mg/kg	0.27J	59.7	59.5	58.1	57.6	97	96	75-125	1	20	
Chromium	mg/kg	20.5	59.7	59.5	78.7	77.2	98	95	75-125	2	20	
Lead	mg/kg	10.3	59.7	59.5	64.0	61.9	90	87	75-125	3	20	
Selenium	mg/kg	<1.6	59.7	59.5	57.0	56.4	96	95	75-125	1	20	
Silver	mg/kg	<0.41	29.8	29.7	29.3	28.6	98	96	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301170 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758936 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/18 09:29	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/18 09:29	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/18 09:29	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/18 09:29	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/18 09:29	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/18 09:29	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/18 09:29	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/18 09:29	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/18 09:29	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/18 09:29	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/18 09:29	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/18 09:29	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/18 09:29	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/18 09:29	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/18 09:29	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/18 09:29	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/18 09:29	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/18 09:29	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/18 09:29	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/18 09:29	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/18 09:29	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/18 09:29	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/18 09:29	
Benzene	ug/kg	<9.2	20.0	09/25/18 09:29	
Bromobenzene	ug/kg	<20.6	50.0	09/25/18 09:29	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/18 09:29	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/18 09:29	
Bromoform	ug/kg	<19.8	50.0	09/25/18 09:29	
Bromomethane	ug/kg	<69.9	250	09/25/18 09:29	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/18 09:29	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/18 09:29	
Chloroethane	ug/kg	<67.0	250	09/25/18 09:29	
Chloroform	ug/kg	<46.4	250	09/25/18 09:29	
Chloromethane	ug/kg	<20.4	50.0	09/25/18 09:29	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/18 09:29	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/18 09:29	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/18 09:29	
Dibromomethane	ug/kg	<19.3	50.0	09/25/18 09:29	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

METHOD BLANK: 1758936 Matrix: Solid

Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/18 09:29	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/18 09:29	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/18 09:29	
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/18 09:29	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/18 09:29	
m&p-Xylene	ug/kg	<34.4	100	09/25/18 09:29	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/18 09:29	
Methylene Chloride	ug/kg	48.2J	50.0	09/25/18 09:29	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/18 09:29	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/18 09:29	
Naphthalene	ug/kg	<40.0	250	09/25/18 09:29	
o-Xylene	ug/kg	<14.0	50.0	09/25/18 09:29	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/18 09:29	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/18 09:29	
Styrene	ug/kg	<9.0	50.0	09/25/18 09:29	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/18 09:29	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/18 09:29	
Toluene	ug/kg	<11.2	50.0	09/25/18 09:29	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/18 09:29	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/18 09:29	
Trichloroethene	ug/kg	<23.6	50.0	09/25/18 09:29	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/18 09:29	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/18 09:29	
4-Bromofluorobenzene (S)	%	88	48-130	09/25/18 09:29	
Dibromofluoromethane (S)	%	107	57-148	09/25/18 09:29	
Toluene-d8 (S)	%	109	58-142	09/25/18 09:29	

LABORATORY CONTROL SAMPLE: 1758937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2320	93	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2540	102	68-130	
1,1,2-Trichloroethane	ug/kg	2500	2470	99	70-130	
1,1-Dichloroethane	ug/kg	2500	2420	97	67-132	
1,1-Dichloroethene	ug/kg	2500	2540	101	67-128	
1,2,4-Trichlorobenzene	ug/kg	2500	2590	104	51-131	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2290	92	49-117	
1,2-Dibromoethane (EDB)	ug/kg	2500	2690	108	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2360	95	70-130	
1,2-Dichloroethane	ug/kg	2500	2180	87	65-137	
1,2-Dichloropropane	ug/kg	2500	2380	95	75-126	
1,3-Dichlorobenzene	ug/kg	2500	2320	93	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/kg	2500	2160	86	70-130	
Benzene	ug/kg	2500	2470	99	70-130	
Bromodichloromethane	ug/kg	2500	2310	92	70-130	
Bromoform	ug/kg	2500	2260	90	57-117	
Bromomethane	ug/kg	2500	2330	93	48-135	
Carbon tetrachloride	ug/kg	2500	2350	94	65-133	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	2770	111	37-165	
Chloroform	ug/kg	2500	2320	93	72-126	
Chloromethane	ug/kg	2500	1660	66	34-120	
cis-1,2-Dichloroethene	ug/kg	2500	2390	96	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2390	96	69-130	
Dibromochloromethane	ug/kg	2500	2480	99	68-130	
Dichlorodifluoromethane	ug/kg	2500	1170	47	22-100	
Ethylbenzene	ug/kg	2500	2410	96	79-121	
Isopropylbenzene (Cumene)	ug/kg	2500	2540	102	70-130	
m&p-Xylene	ug/kg	5000	5170	103	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2440	98	66-129	
Methylene Chloride	ug/kg	2500	2490	100	68-129	
o-Xylene	ug/kg	2500	2500	100	70-130	
Styrene	ug/kg	2500	2430	97	70-130	
Tetrachloroethene	ug/kg	2500	2170	87	70-130	
Toluene	ug/kg	2500	2480	99	80-123	
trans-1,2-Dichloroethene	ug/kg	2500	2610	104	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2630	105	67-130	
Trichloroethene	ug/kg	2500	2310	92	70-130	
Trichlorofluoromethane	ug/kg	2500	2680	107	64-134	
Vinyl chloride	ug/kg	2500	2090	84	52-122	
4-Bromofluorobenzene (S)	%			99	48-130	
Dibromofluoromethane (S)	%			105	57-148	
Toluene-d8 (S)	%			102	58-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758938 1758939

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1490	1490	1290	1330	86	89	62-130	3	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1490	1490	1640	1500	110	100	64-137	9	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1490	1490	1520	1470	102	98	70-130	3	20	
1,1-Dichloroethane	ug/kg	<25.0	1490	1490	1370	1460	92	98	65-132	6	20	
1,1-Dichloroethene	ug/kg	<25.0	1490	1490	1170	1380	79	92	50-128	16	21	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1490	1490	1740	1720	113	111	51-148	1	20	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1490	1490	1470	1300	99	87	43-134	13	23	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1490	1490	1500	1360	101	91	70-130	10	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758938 1758939

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichlorobenzene	ug/kg	<25.0	1490	1490	1660	1490	111	100	70-130	11	20	
1,2-Dichloroethane	ug/kg	<25.0	1490	1490	1310	1320	88	88	65-139	0	20	
1,2-Dichloropropane	ug/kg	<25.0	1490	1490	1350	1520	91	102	74-128	12	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1490	1490	1540	1460	103	98	70-130	5	20	
1,4-Dichlorobenzene	ug/kg	<25.0	1490	1490	1530	1370	103	92	70-130	11	20	
Benzene	ug/kg	<25.0	1490	1490	1430	1440	96	97	66-132	1	20	
Bromodichloromethane	ug/kg	<25.0	1490	1490	1370	1500	92	100	69-130	9	20	
Bromoform	ug/kg	<25.0	1490	1490	1460	1380	98	92	57-130	6	20	
Bromomethane	ug/kg	<69.9	1490	1490	1240	1210	83	81	34-145	2	20	
Carbon tetrachloride	ug/kg	<25.0	1490	1490	1290	1260	86	85	54-133	2	20	
Chlorobenzene	ug/kg	<25.0	1490	1490	1410	1370	95	92	70-130	3	20	
Chloroethane	ug/kg	<67.0	1490	1490	1430	1430	96	96	33-165	0	20	
Chloroform	ug/kg	<46.4	1490	1490	1340	1390	90	93	72-128	4	20	
Chloromethane	ug/kg	<25.0	1490	1490	656	677	44	45	20-120	3	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1410	1440	95	96	69-130	2	20	
cis-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1350	1490	91	100	65-130	10	20	
Dibromochloromethane	ug/kg	<25.0	1490	1490	1500	1430	101	96	65-130	5	20	
Dichlorodifluoromethane	ug/kg	<25.0	1490	1490	378	360	25	24	10-109	5	29	
Ethylbenzene	ug/kg	<25.0	1490	1490	1420	1440	95	97	63-127	2	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1490	1490	1460	1380	98	93	66-130	5	20	
m&p-Xylene	ug/kg	<50.0	2980	2980	3010	3060	101	103	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1490	1490	1480	1490	99	100	62-135	1	20	
Methylene Chloride	ug/kg	70.3J	1490	1490	1600	1570	102	101	68-129	2	20	
o-Xylene	ug/kg	<25.0	1490	1490	1380	1470	93	98	69-130	6	20	
Styrene	ug/kg	<25.0	1490	1490	1460	1470	98	98	70-130	0	20	
Tetrachloroethene	ug/kg	<25.0	1490	1490	1280	1270	86	85	70-130	0	20	
Toluene	ug/kg	<25.0	1490	1490	1460	1460	98	98	80-123	0	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1410	1510	95	101	70-130	7	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1520	1510	102	101	67-130	1	20	
Trichloroethene	ug/kg	<25.0	1490	1490	1320	1380	89	93	70-130	4	20	
Trichlorofluoromethane	ug/kg	<25.0	1490	1490	1260	1200	84	80	41-134	5	26	
Vinyl chloride	ug/kg	<25.0	1490	1490	855	856	57	57	39-122	0	20	
4-Bromofluorobenzene (S)	%						94	88	48-130			
Dibromofluoromethane (S)	%						102	113	57-148			
Toluene-d8 (S)	%						104	101	58-142			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301132 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011

METHOD BLANK: 1758799 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	09/25/18 11:59	
2-Methylnaphthalene	ug/kg	<5.0	16.7	09/25/18 11:59	
Acenaphthene	ug/kg	<3.9	12.9	09/25/18 11:59	
Acenaphthylene	ug/kg	<3.3	11.0	09/25/18 11:59	
Anthracene	ug/kg	<5.7	19.0	09/25/18 11:59	
Benzo(a)anthracene	ug/kg	<3.2	10.6	09/25/18 11:59	
Benzo(a)pyrene	ug/kg	<2.5	8.4	09/25/18 11:59	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	09/25/18 11:59	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	09/25/18 11:59	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	09/25/18 11:59	
Chrysene	ug/kg	<3.4	11.2	09/25/18 11:59	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	09/25/18 11:59	
Fluoranthene	ug/kg	<5.2	17.4	09/25/18 11:59	
Fluorene	ug/kg	<4.1	13.8	09/25/18 11:59	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	09/25/18 11:59	
Naphthalene	ug/kg	<8.4	28.1	09/25/18 11:59	
Phenanthrene	ug/kg	<11.6	38.8	09/25/18 11:59	
Pyrene	ug/kg	<4.5	15.0	09/25/18 11:59	
2-Fluorobiphenyl (S)	%	77	10-115	09/25/18 11:59	
Terphenyl-d14 (S)	%	71	10-121	09/25/18 11:59	

LABORATORY CONTROL SAMPLE: 1758800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	265	79	45-103	
2-Methylnaphthalene	ug/kg	333	250	75	43-98	
Acenaphthene	ug/kg	333	252	76	43-100	
Acenaphthylene	ug/kg	333	236	71	40-100	
Anthracene	ug/kg	333	248	74	50-113	
Benzo(a)anthracene	ug/kg	333	237	71	49-102	
Benzo(a)pyrene	ug/kg	333	267	80	51-105	
Benzo(b)fluoranthene	ug/kg	333	268	80	49-105	
Benzo(g,h,i)perylene	ug/kg	333	223	67	34-113	
Benzo(k)fluoranthene	ug/kg	333	279	84	54-110	
Chrysene	ug/kg	333	268	80	55-116	
Dibenz(a,h)anthracene	ug/kg	333	217	65	45-108	
Fluoranthene	ug/kg	333	271	81	50-118	
Fluorene	ug/kg	333	256	77	41-103	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/kg	333	223	67	43-115	
Naphthalene	ug/kg	333	237	71	44-92	
Phenanthrene	ug/kg	333	259	78	51-104	
Pyrene	ug/kg	333	247	74	51-106	
2-Fluorobiphenyl (S)	%			73	10-115	
Terphenyl-d14 (S)	%			66	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758801 1758802

Parameter	Units	40175843006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	1530	366	368	1180J	1120J	-95	-111	21-105		30	M6
2-Methylnaphthalene	ug/kg	3460	366	368	2310	2250	-314	-328	18-103	2	29	M6
Acenaphthene	ug/kg	<341	366	368	<341	<342	68	62	31-100		28	
Acenaphthylene	ug/kg	<290	366	368	<290	<290	68	61	30-100		27	
Anthracene	ug/kg	<502	366	368	<502	<503	67	58	27-113		30	
Benzo(a)anthracene	ug/kg	<279	366	368	362J	339J	99	92	28-102		30	
Benzo(a)pyrene	ug/kg	<221	366	368	221J	<221	60	50	27-105		32	
Benzo(b)fluoranthene	ug/kg	<248	366	368	258J	<249	70	62	24-109		37	
Benzo(g,h,i)perylene	ug/kg	<179	366	368	<179	<179	0	0	10-113		38	M6
Benzo(k)fluoranthene	ug/kg	<221	366	368	267J	<221	73	57	35-110		31	
Chrysene	ug/kg	<296	366	368	<297	<297	80	72	29-116		29	
Dibenz(a,h)anthracene	ug/kg	<197	366	368	<197	<197	0	0	22-108		32	M6
Fluoranthene	ug/kg	<458	366	368	<458	<459	82	74	27-118		34	
Fluorene	ug/kg	<364	366	368	<364	<365	73	65	31-103		28	
Indeno(1,2,3-cd)pyrene	ug/kg	<193	366	368	<193	<194	0	0	18-115		33	M6
Naphthalene	ug/kg	24400	366	368	15700	15600	-2390	-2410	34-92	1	31	M6
Phenanthrene	ug/kg	<1020	366	368	<1020	<1030	56	48	28-104		32	
Pyrene	ug/kg	<397	366	368	<397	<398	80	76	13-117		40	
2-Fluorobiphenyl (S)	%						67	61	10-115			
Terphenyl-d14 (S)	%						61	57	10-121			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301133 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758803 Matrix: Solid
Associated Lab Samples: 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	09/25/18 14:00	
2-Methylnaphthalene	ug/kg	<5.0	16.7	09/25/18 14:00	
Acenaphthene	ug/kg	<3.9	12.9	09/25/18 14:00	
Acenaphthylene	ug/kg	<3.3	11.0	09/25/18 14:00	
Anthracene	ug/kg	<5.7	19.0	09/25/18 14:00	
Benzo(a)anthracene	ug/kg	<3.2	10.6	09/25/18 14:00	
Benzo(a)pyrene	ug/kg	<2.5	8.4	09/25/18 14:00	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	09/25/18 14:00	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	09/25/18 14:00	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	09/25/18 14:00	
Chrysene	ug/kg	<3.4	11.2	09/25/18 14:00	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.5	09/25/18 14:00	
Fluoranthene	ug/kg	<5.2	17.4	09/25/18 14:00	
Fluorene	ug/kg	<4.1	13.8	09/25/18 14:00	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	09/25/18 14:00	
Naphthalene	ug/kg	<8.4	28.1	09/25/18 14:00	
Phenanthrene	ug/kg	<11.7	38.8	09/25/18 14:00	
Pyrene	ug/kg	<4.5	15.0	09/25/18 14:00	
2-Fluorobiphenyl (S)	%	70	10-115	09/25/18 14:00	
Terphenyl-d14 (S)	%	61	10-121	09/25/18 14:00	

LABORATORY CONTROL SAMPLE: 1758804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	189	57	45-103	
2-Methylnaphthalene	ug/kg	333	182	54	43-98	
Acenaphthene	ug/kg	333	190	57	43-100	
Acenaphthylene	ug/kg	333	175	52	40-100	
Anthracene	ug/kg	333	199	60	50-113	
Benzo(a)anthracene	ug/kg	333	204	61	49-102	
Benzo(a)pyrene	ug/kg	333	224	67	51-105	
Benzo(b)fluoranthene	ug/kg	333	220	66	49-105	
Benzo(g,h,i)perylene	ug/kg	333	203	61	34-113	
Benzo(k)fluoranthene	ug/kg	333	246	74	54-110	
Chrysene	ug/kg	333	229	69	55-116	
Dibenz(a,h)anthracene	ug/kg	333	169	51	45-108	
Fluoranthene	ug/kg	333	223	67	50-118	
Fluorene	ug/kg	333	194	58	41-103	
Indeno(1,2,3-cd)pyrene	ug/kg	333	189	57	43-115	
Naphthalene	ug/kg	333	185	56	44-92	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	209	63	51-104	
Pyrene	ug/kg	333	210	63	51-106	
2-Fluorobiphenyl (S)	%			55	10-115	
Terphenyl-d14 (S)	%			56	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758805 1758806

Parameter	Units	40176256003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	<4.8	393	393	219	234	55	59	21-105	6	30	
2-Methylnaphthalene	ug/kg	<5.9	393	393	208	221	52	55	18-103	6	29	
Acenaphthene	ug/kg	<0.0046 mg/kg	393	393	232	242	59	61	31-100	4	28	
Acenaphthylene	ug/kg	<0.0039 mg/kg	393	393	212	218	54	55	30-100	3	27	
Anthracene	ug/kg	<0.0067 mg/kg	393	393	228	226	58	57	27-113	1	30	
Benzo(a)anthracene	ug/kg	<0.0037 mg/kg	393	393	218	216	55	55	28-102	1	30	
Benzo(a)pyrene	ug/kg	<0.0030 mg/kg	393	393	236	234	60	59	27-105	1	32	
Benzo(b)fluoranthene	ug/kg	<0.0033 mg/kg	393	393	243	232	62	59	24-109	5	37	
Benzo(g,h,i)perylene	ug/kg	<0.0024 mg/kg	393	393	221	219	56	56	10-113	1	38	
Benzo(k)fluoranthene	ug/kg	<0.0030 mg/kg	393	393	247	256	63	65	35-110	3	31	
Chrysene	ug/kg	<0.0040 mg/kg	393	393	248	249	63	63	29-116	0	29	
Dibenz(a,h)anthracene	ug/kg	<0.0026 mg/kg	393	393	196	190	50	48	22-108	3	32	
Fluoranthene	ug/kg	<0.0062 mg/kg	393	393	257	255	65	65	27-118	1	34	
Fluorene	ug/kg	<0.0049 mg/kg	393	393	234	235	60	60	31-103	0	28	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.0026 mg/kg	393	393	214	209	54	53	18-115	2	33	
Naphthalene	ug/kg	0.022J mg/kg	393	393	219	222	50	51	34-92	1	31	
Phenanthrene	ug/kg	<0.014 mg/kg	393	393	245	243	62	62	28-104	1	32	
Pyrene	ug/kg	<0.0053 mg/kg	393	393	244	243	62	62	13-117	0	40	
2-Fluorobiphenyl (S)	%						53	59	10-115			
Terphenyl-d14 (S)	%						53	54	10-121			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301217 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

SAMPLE DUPLICATE: 1759134

Parameter	Units	40176257002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.0	17.4	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALIFIERS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
W	Non-detect results are reported on a wet weight basis.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40176305001	**B-1 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305002	**B-2 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305003	**B-4 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305004	**B-12 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305005	**B-12 (9.5-11)**	EPA 3050	301034	EPA 6010	301409
40176305006	**B-16 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305007	**B-17 (6"-2.5)**	EPA 3050	301034	EPA 6010	301409
40176305008	**B-18 (6"-2)**	EPA 3050	301034	EPA 6010	301409
40176305009	**B-18 (9.5-11)**	EPA 3050	301034	EPA 6010	301409
40176305010	**B-19 (6"-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305011	**B-20 (6"-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305012	**B-21 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305013	**B-21 (14.5-16)**	EPA 3050	301034	EPA 6010	301409
40176305014	**B-23 (6"-2)**	EPA 3050	301034	EPA 6010	301409
40176305015	**B-23 (12-13.5)**	EPA 3050	301034	EPA 6010	301409
40176305001	**B-1 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305002	**B-2 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305003	**B-4 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305004	**B-12 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305005	**B-12 (9.5-11)**	EPA 7471	301143	EPA 7471	301244
40176305006	**B-16 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305007	**B-17 (6"-2.5)**	EPA 7471	301143	EPA 7471	301244
40176305008	**B-18 (6"-2)**	EPA 7471	301143	EPA 7471	301244
40176305009	**B-18 (9.5-11)**	EPA 7471	301143	EPA 7471	301244
40176305010	**B-19 (6"-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305011	**B-20 (6"-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305012	**B-21 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305013	**B-21 (14.5-16)**	EPA 7471	301143	EPA 7471	301244
40176305014	**B-23 (6"-2)**	EPA 7471	301143	EPA 7471	301244
40176305015	**B-23 (12-13.5)**	EPA 7471	301143	EPA 7471	301244
40176305001	**B-1 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305002	**B-2 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305003	**B-4 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305004	**B-12 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305005	**B-12 (9.5-11)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305006	**B-16 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305007	**B-17 (6"-2.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305008	**B-18 (6"-2)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305009	**B-18 (9.5-11)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305010	**B-19 (6"-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305011	**B-20 (6"-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305012	**B-21 (2-3.5)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305013	**B-21 (14.5-16)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305014	**B-23 (6"-2)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305015	**B-23 (12-13.5)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305001	**B-1 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305002	**B-2 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40176305003	**B-4 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305004	**B-12 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305005	**B-12 (9.5-11)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305006	**B-16 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305007	**B-17 (6"-2.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305008	**B-18 (6"-2)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305009	**B-18 (9.5-11)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305010	**B-19 (6"-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305011	**B-20 (6"-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305012	**B-21 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305013	**B-21 (14.5-16)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305014	**B-23 (6"-2)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305015	**B-23 (12-13.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305001	**B-1 (2-3.5)**	ASTM D2974-87	301217		
40176305002	**B-2 (2-3.5)**	ASTM D2974-87	301217		
40176305003	**B-4 (2-3.5)**	ASTM D2974-87	301217		
40176305004	**B-12 (2-3.5)**	ASTM D2974-87	301217		
40176305005	**B-12 (9.5-11)**	ASTM D2974-87	301217		
40176305006	**B-16 (2-3.5)**	ASTM D2974-87	301217		
40176305007	**B-17 (6"-2.5)**	ASTM D2974-87	301217		
40176305008	**B-18 (6"-2)**	ASTM D2974-87	301217		
40176305009	**B-18 (9.5-11)**	ASTM D2974-87	301217		
40176305010	**B-19 (6"-3.5)**	ASTM D2974-87	301217		
40176305011	**B-20 (6"-3.5)**	ASTM D2974-87	301217		
40176305012	**B-21 (2-3.5)**	ASTM D2974-87	301217		
40176305013	**B-21 (14.5-16)**	ASTM D2974-87	301217		
40176305014	**B-23 (6"-2)**	ASTM D2974-87	301217		
40176305015	**B-23 (12-13.5)**	ASTM D2974-87	301217		

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40176305

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Hapx and Associates
Branch/Location:	Milwaukee
Project Contact:	T. Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Alex Amundson
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PAH's	RCRA Metals	VOC's	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-1 (2-3.5)	9-18-18	9AM	S	N	A	X	X	X			
002	B-2 (2-3.5)		9:30	S	N	A	X	X	X			
003	B-4 (2-3.5)		10	S	N	A	X	X	X			
004	B-12 (2-3.5)		10:30	S	N	A	X	X	X			
005	B-12 (9.5-11)		10:45	S	N	A	X	X	X			
006	B-16 (2-3.5)		11	S	N	A	X	X	X			
007	B-17 (6"-2.5)		11:30	S	N	A	X	X	X			
008	B-18 (6"-2)		12 PM	S	N	A	X	X	X			
009	B-18 (9.5-11)		12:15	S	N	A	X	X	X			
010	B-19 (6"-3.5)		12:30	S	N	A	X	X	X			
011	B-20 (6"-3.5)		1	S	N	A	X	X	X			
012	B-21 (2-3.5)		1:30	S	N	A	X	X	X			
013	B-21 (14.5-16)		1:45	S	N	A	X	X	X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/21/18 11:55	Mary Jannin	9/21/18 11:55
Mary Jannin	9/21/18 1245	[illegible] pace	9/21/18 1245
[illegible] pace	9/21/18 1510	[illegible]	9/21/18 1510
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 40176305

Receipt Temp = 8.9 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / ~~Not Present~~ Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40176205

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Hapor and Associates
Branch/Location:	Milwaukee
Project Contact:	T. Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Alex Amundson
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	SAME
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested: RCRA Metals	Analyses Requested: VOCs	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	A	N	N			
014	B-23(6'-2)	9-18-18		S	X	X	X				
015	B-23(12-13.5)	2:45		S	X	X	X				

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	9/21/18 11:55	Mary Jannin	9/21/18 11:55
Mary Jannin	9/21/18 1245	PBOWS PACE	9/21/18 1245
PBOWS PACE	9/21/18 1510	[signature]	9/21/18 1510
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 40176205
Receipt Temp = RQ °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / ~~Not Present~~ Intact / Not Intact

C019a(27Jun2006)
Version 6.0 06/14/06
ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Kapur Project # WO# 76305

All containers needing preservation have been checked and noted below: □Yes □No ☑N/A

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

	Glass							Plastic							Vials						Jars			General								
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: Headspace in VOA Vials (>6mm) : □Yes □No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 25Apr2018
	Document No.: **F-GB-C-031-Rev.07**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 40176305**

Client Name: Kapp

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☐ Client ☑ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - NA **Type of Ice:** Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: RO

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 9/21/18
Initials: [illegible]

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. page #
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): B732401VP		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

December 17, 2018

Travis Peterson
Kapur & Associates, Inc.
7711 N. Port Washington Road
Milwaukee, WI 53217

RE: Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Dear Travis Peterson:
Enclosed are the analytical results for sample(s) received by the laboratory on December 06, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Kapur Environmental, Kapur & Associates, Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40180602001	**GP-13 (1-3)**	Solid	12/05/18 09:45	12/06/18 13:40
40180602002	**GP-14 (1-3)**	Solid	12/05/18 10:00	12/06/18 13:40
40180602003	**GP-14 (6-8)**	Solid	12/05/18 10:15	12/06/18 13:40
40180602004	**GP-15 (1-3)**	Solid	12/05/18 10:28	12/06/18 13:40
40180602005	**GP-16 (1-3)**	Solid	12/05/18 10:45	12/06/18 13:40
40180602006	**GP-16 (6-8)**	Solid	12/05/18 10:55	12/06/18 13:40
40180602007	**GP-17 (1-3)**	Solid	12/05/18 11:10	12/06/18 13:40
40180602008	**TRIP BLANK**	Solid	12/05/18 00:00	12/06/18 13:40

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SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40180602001	**GP-13 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602002	**GP-14 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602003	**GP-14 (6-8)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602004	**GP-15 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602005	**GP-16 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602006	**GP-16 (6-8)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602007	**GP-17 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602008	**TRIP BLANK**	EPA 8260	MDS	64	PASI-G

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40180602001	**GP-13 (1-3)**					
EPA 6010	Arsenic	4.0J	mg/kg	6.0	12/17/18 11:46	
EPA 6010	Barium	38.3	mg/kg	0.60	12/17/18 11:46	
EPA 6010	Chromium	13.5	mg/kg	1.2	12/17/18 11:46	
EPA 6010	Lead	6.4	mg/kg	2.4	12/17/18 11:46	
EPA 7471	Mercury	0.014J	mg/kg	0.042	12/17/18 09:31	
ASTM D2974-87	Percent Moisture	18.1	%	0.10	12/11/18 14:18	
40180602002	**GP-14 (1-3)**					
EPA 6010	Arsenic	4.7J	mg/kg	5.5	12/17/18 11:48	
EPA 6010	Barium	41.3	mg/kg	0.55	12/17/18 11:48	
EPA 6010	Chromium	12.7	mg/kg	1.1	12/17/18 11:48	
EPA 6010	Lead	13.8	mg/kg	2.2	12/17/18 11:48	
EPA 7471	Mercury	0.016J	mg/kg	0.038	12/17/18 09:38	
EPA 8270 by SIM	Acenaphthene	0.025	mg/kg	0.015	12/12/18 16:01	
EPA 8270 by SIM	Acenaphthylene	0.0091J	mg/kg	0.012	12/12/18 16:01	
EPA 8270 by SIM	Anthracene	0.067	mg/kg	0.021	12/12/18 16:01	
EPA 8270 by SIM	Benzo(a)anthracene	0.25	mg/kg	0.012	12/12/18 16:01	
EPA 8270 by SIM	Benzo(a)pyrene	0.30	mg/kg	0.0095	12/12/18 16:01	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.38	mg/kg	0.011	12/12/18 16:01	
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.22	mg/kg	0.0076	12/12/18 16:01	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.27	mg/kg	0.0094	12/12/18 16:01	
EPA 8270 by SIM	Chrysene	0.30	mg/kg	0.013	12/12/18 16:01	
EPA 8270 by SIM	Dibenz(a,h)anthracene	0.062	mg/kg	0.0084	12/12/18 16:01	
EPA 8270 by SIM	Fluoranthene	0.65	mg/kg	0.020	12/12/18 16:01	
EPA 8270 by SIM	Fluorene	0.016	mg/kg	0.016	12/12/18 16:01	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.0083	12/12/18 16:01	
EPA 8270 by SIM	1-Methylnaphthalene	0.058	mg/kg	0.015	12/12/18 16:01	
EPA 8270 by SIM	2-Methylnaphthalene	0.12	mg/kg	0.019	12/12/18 16:01	
EPA 8270 by SIM	Naphthalene	0.060	mg/kg	0.032	12/12/18 16:01	
EPA 8270 by SIM	Phenanthrene	0.24	mg/kg	0.044	12/12/18 16:01	
EPA 8270 by SIM	Pyrene	0.41	mg/kg	0.017	12/12/18 16:01	
ASTM D2974-87	Percent Moisture	11.4	%	0.10	12/11/18 14:18	
40180602003	**GP-14 (6-8)**					
EPA 6010	Arsenic	6.1	mg/kg	5.6	12/17/18 11:51	
EPA 6010	Barium	64.6	mg/kg	0.56	12/17/18 11:51	
EPA 6010	Chromium	14.7	mg/kg	1.1	12/17/18 11:51	
EPA 6010	Lead	7.3	mg/kg	2.2	12/17/18 11:51	
EPA 7471	Mercury	0.020J	mg/kg	0.037	12/17/18 09:40	
EPA 8270 by SIM	Acenaphthene	0.017	mg/kg	0.015	12/12/18 16:18	
EPA 8270 by SIM	Anthracene	0.037	mg/kg	0.023	12/12/18 16:18	
EPA 8270 by SIM	Benzo(a)anthracene	0.074	mg/kg	0.013	12/12/18 16:18	
EPA 8270 by SIM	Benzo(a)pyrene	0.087	mg/kg	0.010	12/12/18 16:18	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.082	mg/kg	0.011	12/12/18 16:18	
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.059	mg/kg	0.0081	12/12/18 16:18	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.073	mg/kg	0.010	12/12/18 16:18	
EPA 8270 by SIM	Chrysene	0.080	mg/kg	0.013	12/12/18 16:18	
EPA 8270 by SIM	Dibenz(a,h)anthracene	0.016	mg/kg	0.0089	12/12/18 16:18	

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40180602003	**GP-14 (6-8)**					
EPA 8270 by SIM	Fluoranthene	0.22	mg/kg	0.021	12/12/18 16:18	
EPA 8270 by SIM	Fluorene	0.013J	mg/kg	0.017	12/12/18 16:18	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	0.048	mg/kg	0.0088	12/12/18 16:18	
EPA 8270 by SIM	Phenanthrene	0.089	mg/kg	0.046	12/12/18 16:18	
EPA 8270 by SIM	Pyrene	0.17	mg/kg	0.018	12/12/18 16:18	
ASTM D2974-87	Percent Moisture	16.4	%	0.10	12/11/18 14:18	
40180602004	**GP-15 (1-3)**					
EPA 6010	Arsenic	4.2J	mg/kg	5.6	12/17/18 11:53	
EPA 6010	Barium	60.6	mg/kg	0.56	12/17/18 11:53	
EPA 6010	Chromium	20.4	mg/kg	1.1	12/17/18 11:53	
EPA 6010	Lead	9.0	mg/kg	2.2	12/17/18 11:53	
EPA 7471	Mercury	0.017J	mg/kg	0.040	12/17/18 09:43	
ASTM D2974-87	Percent Moisture	16.4	%	0.10	12/11/18 14:19	
40180602005	**GP-16 (1-3)**					
EPA 6010	Arsenic	4.4J	mg/kg	5.6	12/17/18 11:56	
EPA 6010	Barium	44.0	mg/kg	0.56	12/17/18 11:56	
EPA 6010	Chromium	13.7	mg/kg	1.1	12/17/18 11:56	
EPA 6010	Lead	6.6	mg/kg	2.2	12/17/18 11:56	
EPA 7471	Mercury	0.013J	mg/kg	0.039	12/17/18 09:45	
ASTM D2974-87	Percent Moisture	15.1	%	0.10	12/11/18 14:19	
40180602006	**GP-16 (6-8)**					
EPA 6010	Arsenic	4.4J	mg/kg	5.9	12/17/18 12:03	
EPA 6010	Barium	63.2	mg/kg	0.59	12/17/18 12:03	
EPA 6010	Chromium	17.7	mg/kg	1.2	12/17/18 12:03	
EPA 6010	Lead	8.0	mg/kg	2.4	12/17/18 12:03	
EPA 7471	Mercury	0.016J	mg/kg	0.041	12/17/18 09:47	
EPA 8260	1,2-Dichloroethane	0.22	mg/kg	0.073	12/07/18 15:01	
ASTM D2974-87	Percent Moisture	17.8	%	0.10	12/11/18 14:19	
40180602007	**GP-17 (1-3)**					
EPA 6010	Arsenic	3.1J	mg/kg	5.7	12/17/18 12:08	
EPA 6010	Barium	18.9	mg/kg	0.57	12/17/18 12:08	
EPA 6010	Chromium	8.9	mg/kg	1.1	12/17/18 12:08	
EPA 6010	Lead	4.3	mg/kg	2.3	12/17/18 12:08	
EPA 8270 by SIM	Benzo(a)pyrene	0.0042J	mg/kg	0.0095	12/12/18 15:09	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.0045J	mg/kg	0.011	12/12/18 15:09	L1
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.0045J	mg/kg	0.0077	12/12/18 15:09	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.0049J	mg/kg	0.0095	12/12/18 15:09	
EPA 8270 by SIM	Chrysene	0.0067J	mg/kg	0.013	12/12/18 15:09	
EPA 8270 by SIM	Fluoranthene	0.0071J	mg/kg	0.020	12/12/18 15:09	
EPA 8270 by SIM	Pyrene	0.0064J	mg/kg	0.017	12/12/18 15:09	
ASTM D2974-87	Percent Moisture	12.4	%	0.10	12/11/18 14:19	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.0J**	mg/kg	6.0	1.3	1	12/14/18 08:48	12/17/18 11:46	7440-38-2	
Barium	**38.3**	mg/kg	0.60	0.18	1	12/14/18 08:48	12/17/18 11:46	7440-39-3	
Cadmium	**<0.16**	mg/kg	0.60	0.16	1	12/14/18 08:48	12/17/18 11:46	7440-43-9	
Chromium	**13.5**	mg/kg	1.2	0.34	1	12/14/18 08:48	12/17/18 11:46	7440-47-3	
Lead	**6.4**	mg/kg	2.4	0.72	1	12/14/18 08:48	12/17/18 11:46	7439-92-1	
Selenium	**<1.6**	mg/kg	5.3	1.6	1	12/14/18 08:48	12/17/18 11:46	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	12/14/18 08:48	12/17/18 11:46	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.014J**	mg/kg	0.042	0.013	1	12/14/18 12:08	12/17/18 09:31	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 15:58	83-32-9	
Acenaphthylene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 15:58	208-96-8	
Anthracene	**<0.0070**	mg/kg	0.023	0.0070	1	12/11/18 09:01	12/11/18 15:58	120-12-7	
Benzo(a)anthracene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 15:58	56-55-3	
Benzo(a)pyrene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 15:58	50-32-8	
Benzo(b)fluoranthene	**<0.0035**	mg/kg	0.012	0.0035	1	12/11/18 09:01	12/11/18 15:58	205-99-2	
Benzo(g,h,i)perylene	**<0.0025**	mg/kg	0.0083	0.0025	1	12/11/18 09:01	12/11/18 15:58	191-24-2	
Benzo(k)fluoranthene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 15:58	207-08-9	
Chrysene	**<0.0041**	mg/kg	0.014	0.0041	1	12/11/18 09:01	12/11/18 15:58	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0091	0.0027	1	12/11/18 09:01	12/11/18 15:58	53-70-3	
Fluoranthene	**<0.0064**	mg/kg	0.021	0.0064	1	12/11/18 09:01	12/11/18 15:58	206-44-0	
Fluorene	**<0.0051**	mg/kg	0.017	0.0051	1	12/11/18 09:01	12/11/18 15:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0027**	mg/kg	0.0090	0.0027	1	12/11/18 09:01	12/11/18 15:58	193-39-5	
1-Methylnaphthalene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 15:58	90-12-0	
2-Methylnaphthalene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 15:58	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 15:58	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.047	0.014	1	12/11/18 09:01	12/11/18 15:58	85-01-8	
Pyrene	**<0.0055**	mg/kg	0.018	0.0055	1	12/11/18 09:01	12/11/18 15:58	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	12/11/18 09:01	12/11/18 15:58	321-60-8	
Terphenyl-d14 (S)	65	%	10-121		1	12/11/18 09:01	12/11/18 15:58	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 16:09	120-82-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 16:09	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 16:09	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 16:09	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 16:09	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 16:09	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 16:09	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	103-65-1	W

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	101	%	57-148		1	12/07/18 08:15	12/07/18 16:09	1868-53-7	
Toluene-d8 (S)	94	%	58-142		1	12/07/18 08:15	12/07/18 16:09	2037-26-5	
4-Bromofluorobenzene (S)	85	%	48-130		1	12/07/18 08:15	12/07/18 16:09	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.1**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.7J**	mg/kg	5.5	1.2	1	12/14/18 08:48	12/17/18 11:48	7440-38-2	
Barium	**41.3**	mg/kg	0.55	0.17	1	12/14/18 08:48	12/17/18 11:48	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.55	0.15	1	12/14/18 08:48	12/17/18 11:48	7440-43-9	
Chromium	**12.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:48	7440-47-3	
Lead	**13.8**	mg/kg	2.2	0.66	1	12/14/18 08:48	12/17/18 11:48	7439-92-1	
Selenium	**<1.5**	mg/kg	4.8	1.5	1	12/14/18 08:48	12/17/18 11:48	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	12/14/18 08:48	12/17/18 11:48	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.016J**	mg/kg	0.038	0.011	1	12/14/18 12:08	12/17/18 09:38	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.025**	mg/kg	0.015	0.0044	1	12/11/18 09:01	12/12/18 16:01	83-32-9	
Acenaphthylene	**0.0091J**	mg/kg	0.012	0.0037	1	12/11/18 09:01	12/12/18 16:01	208-96-8	
Anthracene	**0.067**	mg/kg	0.021	0.0065	1	12/11/18 09:01	12/12/18 16:01	120-12-7	
Benzo(a)anthracene	**0.25**	mg/kg	0.012	0.0036	1	12/11/18 09:01	12/12/18 16:01	56-55-3	
Benzo(a)pyrene	**0.30**	mg/kg	0.0095	0.0028	1	12/11/18 09:01	12/12/18 16:01	50-32-8	
Benzo(b)fluoranthene	**0.38**	mg/kg	0.011	0.0032	1	12/11/18 09:01	12/12/18 16:01	205-99-2	
Benzo(g,h,i)perylene	**0.22**	mg/kg	0.0076	0.0023	1	12/11/18 09:01	12/12/18 16:01	191-24-2	
Benzo(k)fluoranthene	**0.27**	mg/kg	0.0094	0.0028	1	12/11/18 09:01	12/12/18 16:01	207-08-9	
Chrysene	**0.30**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/12/18 16:01	218-01-9	
Dibenz(a,h)anthracene	**0.062**	mg/kg	0.0084	0.0025	1	12/11/18 09:01	12/12/18 16:01	53-70-3	
Fluoranthene	**0.65**	mg/kg	0.020	0.0059	1	12/11/18 09:01	12/12/18 16:01	206-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Fluorene	**0.016**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/12/18 16:01	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.19**	mg/kg	0.0083	0.0025	1	12/11/18 09:01	12/12/18 16:01	193-39-5	
1-Methylnaphthalene	**0.058**	mg/kg	0.015	0.0045	1	12/11/18 09:01	12/12/18 16:01	90-12-0	
2-Methylnaphthalene	**0.12**	mg/kg	0.019	0.0057	1	12/11/18 09:01	12/12/18 16:01	91-57-6	
Naphthalene	**0.060**	mg/kg	0.032	0.0095	1	12/11/18 09:01	12/12/18 16:01	91-20-3	
Phenanthrene	**0.24**	mg/kg	0.044	0.013	1	12/11/18 09:01	12/12/18 16:01	85-01-8	
Pyrene	**0.41**	mg/kg	0.017	0.0051	1	12/11/18 09:01	12/12/18 16:01	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	83	%	10-115		1	12/11/18 09:01	12/12/18 16:01	321-60-8	
Terphenyl-d14 (S)	47	%	10-121		1	12/11/18 09:01	12/12/18 16:01	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:46	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:46	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:46	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:46	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:46	67-66-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:46	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:46	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	113	%	57-148		1	12/07/18 08:15	12/07/18 15:46	1868-53-7	
Toluene-d8 (S)	104	%	58-142		1	12/07/18 08:15	12/07/18 15:46	2037-26-5	
4-Bromofluorobenzene (S)	95	%	48-130		1	12/07/18 08:15	12/07/18 15:46	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.4**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.1**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:51	7440-38-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Barium	**64.6**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:51	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:51	7440-43-9	
Chromium	**14.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:51	7440-47-3	
Lead	**7.3**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:51	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:51	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 11:51	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.020J**	mg/kg	0.037	0.011	1	12/14/18 12:08	12/17/18 09:40	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.017**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/12/18 16:18	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/12/18 16:18	208-96-8	
Anthracene	**0.037**	mg/kg	0.023	0.0068	1	12/11/18 09:01	12/12/18 16:18	120-12-7	
Benzo(a)anthracene	**0.074**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/12/18 16:18	56-55-3	
Benzo(a)pyrene	**0.087**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/12/18 16:18	50-32-8	
Benzo(b)fluoranthene	**0.082**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/12/18 16:18	205-99-2	
Benzo(g,h,i)perylene	**0.059**	mg/kg	0.0081	0.0024	1	12/11/18 09:01	12/12/18 16:18	191-24-2	
Benzo(k)fluoranthene	**0.073**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/12/18 16:18	207-08-9	
Chrysene	**0.080**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/12/18 16:18	218-01-9	
Dibenz(a,h)anthracene	**0.016**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/12/18 16:18	53-70-3	
Fluoranthene	**0.22**	mg/kg	0.021	0.0062	1	12/11/18 09:01	12/12/18 16:18	206-44-0	
Fluorene	**0.013J**	mg/kg	0.017	0.0050	1	12/11/18 09:01	12/12/18 16:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.048**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/12/18 16:18	193-39-5	
1-Methylnaphthalene	**<0.0048**	mg/kg	0.016	0.0048	1	12/11/18 09:01	12/12/18 16:18	90-12-0	
2-Methylnaphthalene	**<0.0060**	mg/kg	0.020	0.0060	1	12/11/18 09:01	12/12/18 16:18	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/12/18 16:18	91-20-3	
Phenanthrene	**0.089**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/12/18 16:18	85-01-8	
Pyrene	**0.17**	mg/kg	0.018	0.0054	1	12/11/18 09:01	12/12/18 16:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	10-115		1	12/11/18 09:01	12/12/18 16:18	321-60-8	
Terphenyl-d14 (S)	63	%	10-121		1	12/11/18 09:01	12/12/18 16:18	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 13:31	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-63-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 13:31	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 13:31	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 13:31	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 13:31	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 13:31	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 13:31	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-47-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	93	%	57-148		1	12/07/18 08:15	12/07/18 13:31	1868-53-7	
Toluene-d8 (S)	88	%	58-142		1	12/07/18 08:15	12/07/18 13:31	2037-26-5	
4-Bromofluorobenzene (S)	76	%	48-130		1	12/07/18 08:15	12/07/18 13:31	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.2J**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:53	7440-38-2	
Barium	**60.6**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:53	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:53	7440-43-9	
Chromium	**20.4**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:53	7440-47-3	
Lead	**9.0**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:53	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:53	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	12/14/18 08:48	12/17/18 11:53	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.017J**	mg/kg	0.040	0.012	1	12/14/18 12:08	12/17/18 09:43	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0046**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/11/18 16:16	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 16:16	208-96-8	
Anthracene	**<0.0068**	mg/kg	0.023	0.0068	1	12/11/18 09:01	12/11/18 16:16	120-12-7	
Benzo(a)anthracene	**<0.0038**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/11/18 16:16	56-55-3	
Benzo(a)pyrene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:16	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/11/18 16:16	205-99-2	
Benzo(g,h,i)perylene	**<0.0024**	mg/kg	0.0081	0.0024	1	12/11/18 09:01	12/11/18 16:16	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:16	207-08-9	
Chrysene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 16:16	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/11/18 16:16	53-70-3	
Fluoranthene	**<0.0062**	mg/kg	0.021	0.0062	1	12/11/18 09:01	12/11/18 16:16	206-44-0	
Fluorene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 16:16	86-73-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Indeno(1,2,3-cd)pyrene	**<0.0026**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/11/18 16:16	193-39-5	
1-Methylnaphthalene	**<0.0048**	mg/kg	0.016	0.0048	1	12/11/18 09:01	12/11/18 16:16	90-12-0	
2-Methylnaphthalene	**<0.0060**	mg/kg	0.020	0.0060	1	12/11/18 09:01	12/11/18 16:16	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 16:16	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/11/18 16:16	85-01-8	
Pyrene	**<0.0054**	mg/kg	0.018	0.0054	1	12/11/18 09:01	12/11/18 16:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	69	%	10-115		1	12/11/18 09:01	12/11/18 16:16	321-60-8	
Terphenyl-d14 (S)	65	%	10-121		1	12/11/18 09:01	12/11/18 16:16	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 14:16	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 14:16	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 14:16	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 14:16	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 14:16	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-87-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 14:16	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 14:16	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	105	%	57-148		1	12/07/18 08:15	12/07/18 14:16	1868-53-7	
Toluene-d8 (S)	100	%	58-142		1	12/07/18 08:15	12/07/18 14:16	2037-26-5	
4-Bromofluorobenzene (S)	92	%	48-130		1	12/07/18 08:15	12/07/18 14:16	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.4J**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:56	7440-38-2	
Barium	**44.0**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:56	7440-39-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:56	7440-43-9	
Chromium	**13.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:56	7440-47-3	
Lead	**6.6**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:56	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:56	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 11:56	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.013J**	mg/kg	0.039	0.012	1	12/14/18 12:08	12/17/18 09:45	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0046**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/11/18 15:07	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 15:07	208-96-8	
Anthracene	**<0.0067**	mg/kg	0.022	0.0067	1	12/11/18 09:01	12/11/18 15:07	120-12-7	
Benzo(a)anthracene	**<0.0037**	mg/kg	0.012	0.0037	1	12/11/18 09:01	12/11/18 15:07	56-55-3	
Benzo(a)pyrene	**<0.0030**	mg/kg	0.0099	0.0030	1	12/11/18 09:01	12/11/18 15:07	50-32-8	
Benzo(b)fluoranthene	**<0.0033**	mg/kg	0.011	0.0033	1	12/11/18 09:01	12/11/18 15:07	205-99-2	
Benzo(g,h,i)perylene	**<0.0024**	mg/kg	0.0080	0.0024	1	12/11/18 09:01	12/11/18 15:07	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.0098	0.0030	1	12/11/18 09:01	12/11/18 15:07	207-08-9	
Chrysene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 15:07	218-01-9	
Dibenz(a,h)anthracene	**<0.0026**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/11/18 15:07	53-70-3	
Fluoranthene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 15:07	206-44-0	
Fluorene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 15:07	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0026**	mg/kg	0.0086	0.0026	1	12/11/18 09:01	12/11/18 15:07	193-39-5	
1-Methylnaphthalene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 15:07	90-12-0	
2-Methylnaphthalene	**<0.0059**	mg/kg	0.020	0.0059	1	12/11/18 09:01	12/11/18 15:07	91-57-6	
Naphthalene	**<0.0099**	mg/kg	0.033	0.0099	1	12/11/18 09:01	12/11/18 15:07	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/11/18 15:07	85-01-8	
Pyrene	**<0.0053**	mg/kg	0.018	0.0053	1	12/11/18 09:01	12/11/18 15:07	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	10-115		1	12/11/18 09:01	12/11/18 15:07	321-60-8	
Terphenyl-d14 (S)	58	%	10-121		1	12/11/18 09:01	12/11/18 15:07	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 14:38	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 14:38	96-12-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 14:38	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 14:38	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 14:38	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 14:38	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 14:38	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	99-87-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	107	%	57-148		1	12/07/18 08:15	12/07/18 14:38	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	12/07/18 08:15	12/07/18 14:38	2037-26-5	
4-Bromofluorobenzene (S)	93	%	48-130		1	12/07/18 08:15	12/07/18 14:38	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.4J**	mg/kg	5.9	1.2	1	12/14/18 08:48	12/17/18 12:03	7440-38-2	
Barium	**63.2**	mg/kg	0.59	0.18	1	12/14/18 08:48	12/17/18 12:03	7440-39-3	
Cadmium	**<0.16**	mg/kg	0.59	0.16	1	12/14/18 08:48	12/17/18 12:03	7440-43-9	
Chromium	**17.7**	mg/kg	1.2	0.33	1	12/14/18 08:48	12/17/18 12:03	7440-47-3	
Lead	**8.0**	mg/kg	2.4	0.71	1	12/14/18 08:48	12/17/18 12:03	7439-92-1	
Selenium	**<1.6**	mg/kg	5.2	1.6	1	12/14/18 08:48	12/17/18 12:03	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	12/14/18 08:48	12/17/18 12:03	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.016J**	mg/kg	0.041	0.012	1	12/14/18 12:08	12/17/18 09:47	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 16:33	83-32-9	
Acenaphthylene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 16:33	208-96-8	
Anthracene	**<0.0069**	mg/kg	0.023	0.0069	1	12/11/18 09:01	12/11/18 16:33	120-12-7	
Benzo(a)anthracene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 16:33	56-55-3	
Benzo(a)pyrene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 16:33	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/11/18 16:33	205-99-2	
Benzo(g,h,i)perylene	**<0.0025**	mg/kg	0.0082	0.0025	1	12/11/18 09:01	12/11/18 16:33	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:33	207-08-9	
Chrysene	**<0.0041**	mg/kg	0.014	0.0041	1	12/11/18 09:01	12/11/18 16:33	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0091	0.0027	1	12/11/18 09:01	12/11/18 16:33	53-70-3	
Fluoranthene	**<0.0063**	mg/kg	0.021	0.0063	1	12/11/18 09:01	12/11/18 16:33	206-44-0	
Fluorene	**<0.0050**	mg/kg	0.017	0.0050	1	12/11/18 09:01	12/11/18 16:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0027**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/11/18 16:33	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
1-Methylnaphthalene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 16:33	90-12-0	
2-Methylnaphthalene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 16:33	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 16:33	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.047	0.014	1	12/11/18 09:01	12/11/18 16:33	85-01-8	
Pyrene	**<0.0055**	mg/kg	0.018	0.0055	1	12/11/18 09:01	12/11/18 16:33	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	12/11/18 09:01	12/11/18 16:33	321-60-8	
Terphenyl-d14 (S)	58	%	10-121		1	12/11/18 09:01	12/11/18 16:33	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:01	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:01	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-50-1	W
1,2-Dichloroethane	**0.22**	mg/kg	0.073	0.030	1	12/07/18 08:15	12/07/18 15:01	107-06-2	
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:01	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:01	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:01	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	124-48-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:01	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:01	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	57-148		1	12/07/18 08:15	12/07/18 15:01	1868-53-7	
Toluene-d8 (S)	90	%	58-142		1	12/07/18 08:15	12/07/18 15:01	2037-26-5	
4-Bromofluorobenzene (S)	79	%	48-130		1	12/07/18 08:15	12/07/18 15:01	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.1J**	mg/kg	5.7	1.2	1	12/14/18 08:48	12/17/18 12:08	7440-38-2	
Barium	**18.9**	mg/kg	0.57	0.17	1	12/14/18 08:48	12/17/18 12:08	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.57	0.15	1	12/14/18 08:48	12/17/18 12:08	7440-43-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	**8.9**	mg/kg	1.1	0.32	1	12/14/18 08:48	12/17/18 12:08	7440-47-3	
Lead	**4.3**	mg/kg	2.3	0.68	1	12/14/18 08:48	12/17/18 12:08	7439-92-1	
Selenium	**<1.5**	mg/kg	5.0	1.5	1	12/14/18 08:48	12/17/18 12:08	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 12:08	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.011**	mg/kg	0.038	0.011	1	12/14/18 12:08	12/17/18 09:54	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0044**	mg/kg	0.015	0.0044	1	12/12/18 08:38	12/12/18 15:09	83-32-9	
Acenaphthylene	**<0.0038**	mg/kg	0.013	0.0038	1	12/12/18 08:38	12/12/18 15:09	208-96-8	
Anthracene	**<0.0065**	mg/kg	0.022	0.0065	1	12/12/18 08:38	12/12/18 15:09	120-12-7	
Benzo(a)anthracene	**<0.0036**	mg/kg	0.012	0.0036	1	12/12/18 08:38	12/12/18 15:09	56-55-3	
Benzo(a)pyrene	**0.0042J**	mg/kg	0.0095	0.0029	1	12/12/18 08:38	12/12/18 15:09	50-32-8	
Benzo(b)fluoranthene	**0.0045J**	mg/kg	0.011	0.0032	1	12/12/18 08:38	12/12/18 15:09	205-99-2	L1
Benzo(g,h,i)perylene	**0.0045J**	mg/kg	0.0077	0.0023	1	12/12/18 08:38	12/12/18 15:09	191-24-2	
Benzo(k)fluoranthene	**0.0049J**	mg/kg	0.0095	0.0029	1	12/12/18 08:38	12/12/18 15:09	207-08-9	
Chrysene	**0.0067J**	mg/kg	0.013	0.0038	1	12/12/18 08:38	12/12/18 15:09	218-01-9	
Dibenz(a,h)anthracene	**<0.0025**	mg/kg	0.0085	0.0025	1	12/12/18 08:38	12/12/18 15:09	53-70-3	
Fluoranthene	**0.0071J**	mg/kg	0.020	0.0059	1	12/12/18 08:38	12/12/18 15:09	206-44-0	
Fluorene	**<0.0047**	mg/kg	0.016	0.0047	1	12/12/18 08:38	12/12/18 15:09	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0025**	mg/kg	0.0084	0.0025	1	12/12/18 08:38	12/12/18 15:09	193-39-5	
1-Methylnaphthalene	**<0.0046**	mg/kg	0.015	0.0046	1	12/12/18 08:38	12/12/18 15:09	90-12-0	
2-Methylnaphthalene	**<0.0057**	mg/kg	0.019	0.0057	1	12/12/18 08:38	12/12/18 15:09	91-57-6	
Naphthalene	**<0.0096**	mg/kg	0.032	0.0096	1	12/12/18 08:38	12/12/18 15:09	91-20-3	
Phenanthrene	**<0.013**	mg/kg	0.044	0.013	1	12/12/18 08:38	12/12/18 15:09	85-01-8	
Pyrene	**0.0064J**	mg/kg	0.017	0.0051	1	12/12/18 08:38	12/12/18 15:09	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	10-115		1	12/12/18 08:38	12/12/18 15:09	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		1	12/12/18 08:38	12/12/18 15:09	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:24	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:24	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-93-4	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:24	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:24	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:24	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:24	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:24	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	135-98-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	112	%	57-148		1	12/07/18 08:15	12/07/18 15:24	1868-53-7	
Toluene-d8 (S)	106	%	58-142		1	12/07/18 08:15	12/07/18 15:24	2037-26-5	
4-Bromofluorobenzene (S)	93	%	48-130		1	12/07/18 08:15	12/07/18 15:24	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.4**	%	0.10	0.10	1		12/11/18 14:19		

Sample: TRIP BLANK **Lab ID: 40180602008** Collected: 12/05/18 00:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 12:24	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 12:24	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-97-5	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: TRIP BLANK **Lab ID: 40180602008** Collected: 12/05/18 00:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 12:24	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 12:24	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 12:24	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 12:24	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 12:24	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	111	%	57-148		1	12/07/18 08:15	12/07/18 12:24	1868-53-7	
Toluene-d8 (S)	104	%	58-142		1	12/07/18 08:15	12/07/18 12:24	2037-26-5	
4-Bromofluorobenzene (S)	98	%	48-130		1	12/07/18 08:15	12/07/18 12:24	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 309254 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

METHOD BLANK: 1806320 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	12/17/18 09:26	

LABORATORY CONTROL SAMPLE: 1806321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.83	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1806322 1806323

Parameter	Units	40180602001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.014J	1	1	1.0	1.0	99	101	85-115	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 309088 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

METHOD BLANK: 1805454 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	12/17/18 11:05	
Barium	mg/kg	<0.15	0.50	12/17/18 11:05	
Cadmium	mg/kg	<0.13	0.50	12/17/18 11:05	
Chromium	mg/kg	<0.28	1.0	12/17/18 11:05	
Lead	mg/kg	<0.60	2.0	12/17/18 11:05	
Selenium	mg/kg	<1.3	4.4	12/17/18 11:05	
Silver	mg/kg	<0.34	1.0	12/17/18 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 1805455 1805456

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	50	47.0	47.8	94	96	80-120	2	20	
Barium	mg/kg	50	50.6	51.9	101	104	80-120	2	20	
Cadmium	mg/kg	50	49.1	50.4	98	101	80-120	3	20	
Chromium	mg/kg	50	51.1	52.6	102	105	80-120	3	20	
Lead	mg/kg	50	50.2	51.4	100	103	80-120	2	20	
Selenium	mg/kg	50	49.2	51.6	98	103	80-120	5	20	
Silver	mg/kg	25	24.8	25.6	99	102	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1805457 1805458

Parameter	Units	40180907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	4.5J	53.6	53.6	54.1	52.6	93	90	75-125	3	20	
Barium	mg/kg	28.3	53.6	53.6	91.4	98.4	118	131	75-125	7	20	M0
Cadmium	mg/kg	<0.14	53.6	53.6	55.4	54.2	103	101	75-125	2	20	
Chromium	mg/kg	10.2	53.6	53.6	65.5	66.4	103	105	75-125	1	20	
Lead	mg/kg	5.2	53.6	53.6	61.7	57.0	105	97	75-125	8	20	
Selenium	mg/kg	<1.4	53.6	53.6	55.0	53.7	103	100	75-125	3	20	
Silver	mg/kg	<0.37	26.9	26.8	27.4	26.9	102	100	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308660 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

METHOD BLANK: 1802982 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	<0.014	0.050	12/07/18 10:07	
1,1,1-Trichloroethane	mg/kg	<0.014	0.050	12/07/18 10:07	
1,1,2,2-Tetrachloroethane	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1,2-Trichloroethane	mg/kg	<0.020	0.050	12/07/18 10:07	
1,1-Dichloroethane	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1-Dichloroethene	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1-Dichloropropene	mg/kg	<0.014	0.050	12/07/18 10:07	
1,2,3-Trichlorobenzene	mg/kg	<0.017	0.050	12/07/18 10:07	
1,2,3-Trichloropropane	mg/kg	<0.022	0.050	12/07/18 10:07	
1,2,4-Trichlorobenzene	mg/kg	<0.048	0.25	12/07/18 10:07	
1,2,4-Trimethylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
1,2-Dibromo-3-chloropropane	mg/kg	<0.091	0.25	12/07/18 10:07	
1,2-Dibromoethane (EDB)	mg/kg	<0.015	0.050	12/07/18 10:07	
1,2-Dichlorobenzene	mg/kg	<0.016	0.050	12/07/18 10:07	
1,2-Dichloroethane	mg/kg	<0.015	0.050	12/07/18 10:07	
1,2-Dichloropropane	mg/kg	<0.017	0.050	12/07/18 10:07	
1,3,5-Trimethylbenzene	mg/kg	<0.014	0.050	12/07/18 10:07	
1,3-Dichlorobenzene	mg/kg	<0.013	0.050	12/07/18 10:07	
1,3-Dichloropropane	mg/kg	<0.012	0.050	12/07/18 10:07	
1,4-Dichlorobenzene	mg/kg	<0.016	0.050	12/07/18 10:07	
2,2-Dichloropropane	mg/kg	<0.013	0.050	12/07/18 10:07	
2-Chlorotoluene	mg/kg	<0.016	0.050	12/07/18 10:07	
4-Chlorotoluene	mg/kg	<0.013	0.050	12/07/18 10:07	
Benzene	mg/kg	<0.0092	0.020	12/07/18 10:07	
Bromobenzene	mg/kg	<0.021	0.050	12/07/18 10:07	
Bromochloromethane	mg/kg	<0.021	0.050	12/07/18 10:07	
Bromodichloromethane	mg/kg	<0.0098	0.050	12/07/18 10:07	
Bromoform	mg/kg	<0.020	0.050	12/07/18 10:07	
Bromomethane	mg/kg	<0.070	0.25	12/07/18 10:07	
Carbon tetrachloride	mg/kg	<0.012	0.050	12/07/18 10:07	
Chlorobenzene	mg/kg	<0.015	0.050	12/07/18 10:07	
Chloroethane	mg/kg	<0.067	0.25	12/07/18 10:07	
Chloroform	mg/kg	<0.046	0.25	12/07/18 10:07	
Chloromethane	mg/kg	<0.020	0.050	12/07/18 10:07	
cis-1,2-Dichloroethene	mg/kg	<0.017	0.050	12/07/18 10:07	
cis-1,3-Dichloropropene	mg/kg	<0.017	0.050	12/07/18 10:07	
Dibromochloromethane	mg/kg	<0.018	0.050	12/07/18 10:07	
Dibromomethane	mg/kg	<0.019	0.050	12/07/18 10:07	
Dichlorodifluoromethane	mg/kg	<0.012	0.050	12/07/18 10:07	
Diisopropyl ether	mg/kg	<0.018	0.050	12/07/18 10:07	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

METHOD BLANK: 1802982 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Hexachloro-1,3-butadiene	mg/kg	<0.024	0.050	12/07/18 10:07	
Isopropylbenzene (Cumene)	mg/kg	<0.013	0.050	12/07/18 10:07	
m&p-Xylene	mg/kg	<0.034	0.10	12/07/18 10:07	
Methyl-tert-butyl ether	mg/kg	<0.013	0.050	12/07/18 10:07	
Methylene Chloride	mg/kg	<0.016	0.050	12/07/18 10:07	
n-Butylbenzene	mg/kg	<0.011	0.050	12/07/18 10:07	
n-Propylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Naphthalene	mg/kg	<0.040	0.25	12/07/18 10:07	
o-Xylene	mg/kg	<0.014	0.050	12/07/18 10:07	
p-Isopropyltoluene	mg/kg	<0.012	0.050	12/07/18 10:07	
sec-Butylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Styrene	mg/kg	<0.0090	0.050	12/07/18 10:07	
tert-Butylbenzene	mg/kg	<0.0095	0.050	12/07/18 10:07	
Tetrachloroethene	mg/kg	<0.013	0.050	12/07/18 10:07	
Toluene	mg/kg	<0.011	0.050	12/07/18 10:07	
trans-1,2-Dichloroethene	mg/kg	<0.016	0.050	12/07/18 10:07	
trans-1,3-Dichloropropene	mg/kg	<0.014	0.050	12/07/18 10:07	
Trichloroethene	mg/kg	<0.024	0.050	12/07/18 10:07	
Trichlorofluoromethane	mg/kg	<0.025	0.050	12/07/18 10:07	
Vinyl chloride	mg/kg	<0.021	0.050	12/07/18 10:07	
4-Bromofluorobenzene (S)	%	87	48-130	12/07/18 10:07	
Dibromofluoromethane (S)	%	102	57-148	12/07/18 10:07	
Toluene-d8 (S)	%	98	58-142	12/07/18 10:07	

LABORATORY CONTROL SAMPLE: 1802983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	2.5	2.9	116	70-130	
1,1,2,2-Tetrachloroethane	mg/kg	2.5	2.6	106	68-130	
1,1,2-Trichloroethane	mg/kg	2.5	2.7	109	70-130	
1,1-Dichloroethane	mg/kg	2.5	3.0	121	67-132	
1,1-Dichloroethene	mg/kg	2.5	2.8	114	67-128	
1,2,4-Trichlorobenzene	mg/kg	2.5	2.7	108	51-131	
1,2-Dibromo-3-chloropropane	mg/kg	2.5	2.6	102	49-117	
1,2-Dibromoethane (EDB)	mg/kg	2.5	2.4	98	70-130	
1,2-Dichlorobenzene	mg/kg	2.5	2.7	109	70-130	
1,2-Dichloroethane	mg/kg	2.5	2.9	115	65-137	
1,2-Dichloropropane	mg/kg	2.5	3.0	119	75-126	
1,3-Dichlorobenzene	mg/kg	2.5	2.7	108	70-130	
1,4-Dichlorobenzene	mg/kg	2.5	2.5	102	70-130	
Benzene	mg/kg	2.5	2.9	116	70-130	
Bromodichloromethane	mg/kg	2.5	2.9	116	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1802983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	mg/kg	2.5	2.3	91	57-117	
Bromomethane	mg/kg	2.5	2.8	113	48-135	
Carbon tetrachloride	mg/kg	2.5	2.9	116	65-133	
Chlorobenzene	mg/kg	2.5	2.8	110	70-130	
Chloroethane	mg/kg	2.5	3.2	129	37-165	
Chloroform	mg/kg	2.5	2.9	116	72-126	
Chloromethane	mg/kg	2.5	2.8	113	34-120	
cis-1,2-Dichloroethene	mg/kg	2.5	2.9	114	70-130	
cis-1,3-Dichloropropene	mg/kg	2.5	2.6	103	69-130	
Dibromochloromethane	mg/kg	2.5	2.7	109	68-130	
Dichlorodifluoromethane	mg/kg	2.5	2.5	99	22-100	
Ethylbenzene	mg/kg	2.5	2.9	114	79-121	
Isopropylbenzene (Cumene)	mg/kg	2.5	3.0	121	70-130	
m&p-Xylene	mg/kg	5	5.7	114	70-130	
Methyl-tert-butyl ether	mg/kg	2.5	2.5	100	66-129	
Methylene Chloride	mg/kg	2.5	2.7	107	68-129	
o-Xylene	mg/kg	2.5	3.0	118	70-130	
Styrene	mg/kg	2.5	2.6	106	70-130	
Tetrachloroethene	mg/kg	2.5	2.9	115	70-130	
Toluene	mg/kg	2.5	2.8	113	80-123	
trans-1,2-Dichloroethene	mg/kg	2.5	2.6	104	70-130	
trans-1,3-Dichloropropene	mg/kg	2.5	2.4	98	67-130	
Trichloroethene	mg/kg	2.5	3.0	119	70-130	
Trichlorofluoromethane	mg/kg	2.5	3.0	118	64-134	
Vinyl chloride	mg/kg	2.5	3.1	126	52-122	L1
4-Bromofluorobenzene (S)	%			107	48-130	
Dibromofluoromethane (S)	%			107	57-148	
Toluene-d8 (S)	%			102	58-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1802984 1802985

Parameter	Units	40180602003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	62-130	0	20	
1,1,2,2-Tetrachloroethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	116	64-137	7	20	
1,1,2-Trichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	116	70-130	4	20	
1,1-Dichloroethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	110	113	65-132	2	20	
1,1-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.5	97	99	50-128	2	21	
1,2,4-Trichlorobenzene	mg/kg	<0.048	1.4	1.4	1.7	1.8	116	118	51-148	2	20	
1,2-Dibromo-3-chloropropane	mg/kg	<0.091	1.4	1.4	1.5	1.7	102	111	43-134	8	23	
1,2-Dibromoethane (EDB)	mg/kg	<0.025	1.4	1.4	1.5	1.5	98	103	70-130	4	20	
1,2-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	114	70-130	0	20	
1,2-Dichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	65-139	1	20	
1,2-Dichloropropane	mg/kg	<0.025	1.4	1.4	1.7	1.6	111	110	74-128	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1802984 1802985

Parameter	Units	40180602003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,3-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	113	70-130	2	20	
1,4-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.6	117	109	70-130	7	20	
Benzene	mg/kg	<0.025	1.4	1.4	1.6	1.6	109	109	66-132	0	20	
Bromodichloromethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	111	69-130	3	20	
Bromoform	mg/kg	<0.025	1.4	1.4	1.5	1.6	99	104	57-130	5	20	
Bromomethane	mg/kg	<0.070	1.4	1.4	1.3	1.3	85	86	34-145	1	20	
Carbon tetrachloride	mg/kg	<0.025	1.4	1.4	1.6	1.6	110	108	54-133	2	20	
Chlorobenzene	mg/kg	<0.025	1.4	1.4	1.6	1.7	109	112	70-130	2	20	
Chloroethane	mg/kg	<0.067	1.4	1.4	1.7	1.7	111	111	33-165	0	20	
Chloroform	mg/kg	<0.046	1.4	1.4	1.7	1.7	112	112	72-128	0	20	
Chloromethane	mg/kg	<0.025	1.4	1.4	1.1	1.1	71	74	20-120	4	20	
cis-1,2-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.6	103	107	69-130	4	20	
cis-1,3-Dichloropropene	mg/kg	<0.025	1.4	1.4	1.5	1.6	98	104	65-130	6	20	
Dibromochloromethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	105	111	65-130	6	20	
Dichlorodifluoromethane	mg/kg	<0.025	1.4	1.4	0.77	0.77	51	52	10-109	1	29	
Ethylbenzene	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	112	63-127	4	20	
Isopropylbenzene (Cumene)	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	116	66-130	2	20	
m&p-Xylene	mg/kg	<0.050	3	3	3.3	3.4	112	115	70-130	3	20	
Methyl-tert-butyl ether	mg/kg	<0.025	1.4	1.4	1.4	1.6	95	105	62-135	9	20	
Methylene Chloride	mg/kg	<0.025	1.4	1.4	1.5	1.5	101	102	68-129	1	20	
o-Xylene	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	113	69-130	1	20	
Styrene	mg/kg	<0.025	1.4	1.4	1.5	1.5	102	100	70-130	2	20	
Tetrachloroethene	mg/kg	<0.025	1.4	1.4	1.6	1.7	109	115	70-130	6	20	
Toluene	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	80-123	0	20	
trans-1,2-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.5	101	103	70-130	2	20	
trans-1,3-Dichloropropene	mg/kg	<0.025	1.4	1.4	1.4	1.5	94	99	67-130	5	20	
Trichloroethene	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	115	70-130	4	20	
Trichlorofluoromethane	mg/kg	<0.025	1.4	1.4	1.6	1.5	104	102	41-134	2	26	
Vinyl chloride	mg/kg	<0.025	1.4	1.4	1.3	1.3	86	87	39-122	1	20	
4-Bromofluorobenzene (S)	%						87	91	48-130			
Dibromofluoromethane (S)	%						92	93	57-148			
Toluene-d8 (S)	%						90	90	58-142			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308890 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006

METHOD BLANK: 1804409 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0040	0.013	12/11/18 12:13	
2-Methylnaphthalene	mg/kg	<0.0050	0.017	12/11/18 12:13	
Acenaphthene	mg/kg	<0.0039	0.013	12/11/18 12:13	
Acenaphthylene	mg/kg	<0.0033	0.011	12/11/18 12:13	
Anthracene	mg/kg	<0.0057	0.019	12/11/18 12:13	
Benzo(a)anthracene	mg/kg	<0.0032	0.011	12/11/18 12:13	
Benzo(a)pyrene	mg/kg	<0.0025	0.0084	12/11/18 12:13	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0094	12/11/18 12:13	
Benzo(g,h,i)perylene	mg/kg	<0.0020	0.0068	12/11/18 12:13	
Benzo(k)fluoranthene	mg/kg	<0.0025	0.0084	12/11/18 12:13	
Chrysene	mg/kg	<0.0034	0.011	12/11/18 12:13	
Dibenz(a,h)anthracene	mg/kg	<0.0022	0.0074	12/11/18 12:13	
Fluoranthene	mg/kg	<0.0052	0.017	12/11/18 12:13	
Fluorene	mg/kg	<0.0041	0.014	12/11/18 12:13	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0022	0.0073	12/11/18 12:13	
Naphthalene	mg/kg	<0.0084	0.028	12/11/18 12:13	
Phenanthrene	mg/kg	<0.012	0.039	12/11/18 12:13	
Pyrene	mg/kg	<0.0045	0.015	12/11/18 12:13	
2-Fluorobiphenyl (S)	%	76	10-115	12/11/18 12:13	
Terphenyl-d14 (S)	%	68	10-121	12/11/18 12:13	

LABORATORY CONTROL SAMPLE: 1804410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.33	0.24	71	45-103	
2-Methylnaphthalene	mg/kg	0.33	0.24	71	43-98	
Acenaphthene	mg/kg	0.33	0.29	86	43-100	
Acenaphthylene	mg/kg	0.33	0.29	86	40-100	
Anthracene	mg/kg	0.33	0.25	74	50-113	
Benzo(a)anthracene	mg/kg	0.33	0.27	81	49-102	
Benzo(a)pyrene	mg/kg	0.33	0.31	92	51-105	
Benzo(b)fluoranthene	mg/kg	0.33	0.32	95	49-105	
Benzo(g,h,i)perylene	mg/kg	0.33	0.27	81	34-113	
Benzo(k)fluoranthene	mg/kg	0.33	0.31	93	54-110	
Chrysene	mg/kg	0.33	0.28	84	55-116	
Dibenz(a,h)anthracene	mg/kg	0.33	0.29	86	45-108	
Fluoranthene	mg/kg	0.33	0.29	86	50-118	
Fluorene	mg/kg	0.33	0.30	92	41-103	
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.29	88	43-115	
Naphthalene	mg/kg	0.33	0.25	76	44-92	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1804410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	0.33	0.25	76	51-104	
Pyrene	mg/kg	0.33	0.31	92	51-106	
2-Fluorobiphenyl (S)	%			73	10-115	
Terphenyl-d14 (S)	%			87	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1804411 1804412

Parameter	Units	40180602005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	<0.0047	0.39	0.39	0.25	0.26	63	67	21-105	5	30	
2-Methylnaphthalene	mg/kg	<0.0059	0.39	0.39	0.26	0.27	65	68	18-103	4	29	
Acenaphthene	mg/kg	<0.0046	0.39	0.39	0.32	0.32	81	82	31-100	1	28	
Acenaphthylene	mg/kg	<0.0039	0.39	0.39	0.31	0.31	78	80	30-100	2	27	
Anthracene	mg/kg	<0.0067	0.39	0.39	0.28	0.27	71	69	27-113	2	30	
Benzo(a)anthracene	mg/kg	<0.0037	0.39	0.39	0.29	0.28	74	71	28-102	4	30	
Benzo(a)pyrene	mg/kg	<0.0030	0.39	0.39	0.34	0.32	85	81	27-105	6	32	
Benzo(b)fluoranthene	mg/kg	<0.0033	0.39	0.39	0.35	0.36	89	90	24-109	2	37	
Benzo(g,h,i)perylene	mg/kg	<0.0024	0.39	0.39	0.19	0.18	48	46	10-113	5	38	
Benzo(k)fluoranthene	mg/kg	<0.0030	0.39	0.39	0.38	0.35	96	88	35-110	8	31	
Chrysene	mg/kg	<0.0040	0.39	0.39	0.30	0.29	77	74	29-116	4	29	
Dibenz(a,h)anthracene	mg/kg	<0.0026	0.39	0.39	0.23	0.22	59	57	22-108	5	32	
Fluoranthene	mg/kg	<0.0061	0.39	0.39	0.32	0.31	80	77	27-118	4	34	
Fluorene	mg/kg	<0.0049	0.39	0.39	0.34	0.33	86	85	31-103	0	28	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0026	0.39	0.39	0.23	0.22	59	56	18-115	5	33	
Naphthalene	mg/kg	<0.0099	0.39	0.39	0.26	0.29	65	74	34-92	13	31	
Phenanthrene	mg/kg	<0.014	0.39	0.39	0.28	0.27	71	69	28-104	3	32	
Pyrene	mg/kg	<0.0053	0.39	0.39	0.29	0.28	74	69	13-117	7	40	
2-Fluorobiphenyl (S)	%						57	58	10-115			
Terphenyl-d14 (S)	%						59	58	10-121			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308982
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40180602007

METHOD BLANK: 1804810
Matrix: Solid
Associated Lab Samples: 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0040	0.013	12/12/18 11:41	
2-Methylnaphthalene	mg/kg	<0.0050	0.017	12/12/18 11:41	
Acenaphthene	mg/kg	<0.0039	0.013	12/12/18 11:41	
Acenaphthylene	mg/kg	<0.0033	0.011	12/12/18 11:41	
Anthracene	mg/kg	<0.0057	0.019	12/12/18 11:41	
Benzo(a)anthracene	mg/kg	<0.0032	0.011	12/12/18 11:41	
Benzo(a)pyrene	mg/kg	<0.0025	0.0084	12/12/18 11:41	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0094	12/12/18 11:41	
Benzo(g,h,i)perylene	mg/kg	<0.0020	0.0068	12/12/18 11:41	
Benzo(k)fluoranthene	mg/kg	<0.0025	0.0084	12/12/18 11:41	
Chrysene	mg/kg	<0.0034	0.011	12/12/18 11:41	
Dibenz(a,h)anthracene	mg/kg	<0.0022	0.0074	12/12/18 11:41	
Fluoranthene	mg/kg	<0.0052	0.017	12/12/18 11:41	
Fluorene	mg/kg	<0.0041	0.014	12/12/18 11:41	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0022	0.0073	12/12/18 11:41	
Naphthalene	mg/kg	<0.0084	0.028	12/12/18 11:41	
Phenanthrene	mg/kg	<0.012	0.039	12/12/18 11:41	
Pyrene	mg/kg	<0.0045	0.015	12/12/18 11:41	
2-Fluorobiphenyl (S)	%	111	10-115	12/12/18 11:41	
Terphenyl-d14 (S)	%	78	10-121	12/12/18 11:41	

LABORATORY CONTROL SAMPLE: 1804811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.33	0.26	77	45-103	
2-Methylnaphthalene	mg/kg	0.33	0.26	77	43-98	
Acenaphthene	mg/kg	0.33	0.32	96	43-100	
Acenaphthylene	mg/kg	0.33	0.32	96	40-100	
Anthracene	mg/kg	0.33	0.28	83	50-113	
Benzo(a)anthracene	mg/kg	0.33	0.30	89	49-102	
Benzo(a)pyrene	mg/kg	0.33	0.32	96	51-105	
Benzo(b)fluoranthene	mg/kg	0.33	0.38	113	49-105	L1
Benzo(g,h,i)perylene	mg/kg	0.33	0.27	80	34-113	
Benzo(k)fluoranthene	mg/kg	0.33	0.32	95	54-110	
Chrysene	mg/kg	0.33	0.30	91	55-116	
Dibenz(a,h)anthracene	mg/kg	0.33	0.29	87	45-108	
Fluoranthene	mg/kg	0.33	0.32	95	50-118	
Fluorene	mg/kg	0.33	0.34	103	41-103	
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.30	89	43-115	
Naphthalene	mg/kg	0.33	0.28	83	44-92	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1804811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	0.33	0.29	86	51-104	
Pyrene	mg/kg	0.33	0.27	82	51-106	
2-Fluorobiphenyl (S)	%			82	10-115	
Terphenyl-d14 (S)	%			78	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1804812 1804813

Parameter	Units	40180602007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	<0.0046	0.38	0.38	0.25	0.25	65	67	21-105	3	30	
2-Methylnaphthalene	mg/kg	<0.0057	0.38	0.38	0.25	0.26	66	67	18-103	2	29	
Acenaphthene	mg/kg	<0.0044	0.38	0.38	0.30	0.32	78	85	31-100	9	28	
Acenaphthylene	mg/kg	<0.0038	0.38	0.38	0.29	0.31	77	83	30-100	7	27	
Anthracene	mg/kg	<0.0065	0.38	0.38	0.24	0.27	63	70	27-113	10	30	
Benzo(a)anthracene	mg/kg	<0.0036	0.38	0.38	0.26	0.28	67	74	28-102	10	30	
Benzo(a)pyrene	mg/kg	0.0042J	0.38	0.38	0.27	0.31	70	80	27-105	13	32	
Benzo(b)fluoranthene	mg/kg	0.0045J	0.38	0.38	0.29	0.34	74	88	24-109	16	37	
Benzo(g,h,i)perylene	mg/kg	0.0045J	0.38	0.38	0.24	0.28	61	73	10-113	18	38	
Benzo(k)fluoranthene	mg/kg	0.0049J	0.38	0.38	0.28	0.31	71	79	35-110	10	31	
Chrysene	mg/kg	0.0067J	0.38	0.38	0.27	0.30	68	76	29-116	10	29	
Dibenz(a,h)anthracene	mg/kg	<0.0025	0.38	0.38	0.25	0.30	64	78	22-108	19	32	
Fluoranthene	mg/kg	0.0071J	0.38	0.38	0.28	0.28	71	72	27-118	2	34	
Fluorene	mg/kg	<0.0047	0.38	0.38	0.31	0.33	81	88	31-103	8	28	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0025	0.38	0.38	0.26	0.30	67	79	18-115	15	33	
Naphthalene	mg/kg	<0.0096	0.38	0.38	0.27	0.28	70	73	34-92	3	31	
Phenanthrene	mg/kg	<0.013	0.38	0.38	0.25	0.28	65	71	28-104	9	32	
Pyrene	mg/kg	0.0064J	0.38	0.38	0.26	0.23	65	60	13-117	8	40	
2-Fluorobiphenyl (S)	%						61	66	10-115			
Terphenyl-d14 (S)	%						60	57	10-121			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308947 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

SAMPLE DUPLICATE: 1804671

Parameter	Units	40180775002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.2	7.1	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
W	Non-detect results are reported on a wet weight basis.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40180602001	**GP-13 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602002	**GP-14 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602003	**GP-14 (6-8)**	EPA 3050	309088	EPA 6010	309359
40180602004	**GP-15 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602005	**GP-16 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602006	**GP-16 (6-8)**	EPA 3050	309088	EPA 6010	309359
40180602007	**GP-17 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602001	**GP-13 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602002	**GP-14 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602003	**GP-14 (6-8)**	EPA 7471	309254	EPA 7471	309272
40180602004	**GP-15 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602005	**GP-16 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602006	**GP-16 (6-8)**	EPA 7471	309254	EPA 7471	309272
40180602007	**GP-17 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602001	**GP-13 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602002	**GP-14 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602003	**GP-14 (6-8)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602004	**GP-15 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602005	**GP-16 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602006	**GP-16 (6-8)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602007	**GP-17 (1-3)**	EPA 3546	308982	EPA 8270 by SIM	309013
40180602001	**GP-13 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602002	**GP-14 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602003	**GP-14 (6-8)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602004	**GP-15 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602005	**GP-16 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602006	**GP-16 (6-8)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602007	**GP-17 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602008	**TRIP BLANK**	EPA 5035/5030B	308660	EPA 8260	308664
40180602001	**GP-13 (1-3)**	ASTM D2974-87	308947		
40180602002	**GP-14 (1-3)**	ASTM D2974-87	308947		
40180602003	**GP-14 (6-8)**	ASTM D2974-87	308947		
40180602004	**GP-15 (1-3)**	ASTM D2974-87	308947		
40180602005	**GP-16 (1-3)**	ASTM D2974-87	308947		
40180602006	**GP-16 (6-8)**	ASTM D2974-87	308947		
40180602007	**GP-17 (1-3)**	ASTM D2974-87	308947		

(Please Print Clearly)	
Company Name:	Kapur & Associates, Inc
Branch/Location:	Milwaukee
Project Contact:	Travis Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Patricia Hermann
Sampled By (Sign):	Patricia Hermann
PO #:	Regulatory Program:

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www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

PG

40180602

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: VOCs	RCRA Metals	PAHs	Dry Weight	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	GP-13 (1-3)	12/5/18	9:45	SOIL	N	F	X	X	X	X			
002	GP-14 (1-3)		10:00		N	A	X	X	X	X			
003	GP-14 (6-8)		10:15		N	A	X	X	X	X			
004	GP-15 (1-3)		10:28		N	A	X	X	X	X			
005	GP-16 (1-3)		10:45		N	A	X	X	X	X			
006	GP-16 (6-8)		10:55		N	A	X	X	X	X			
007	GP-17 (1-3)		11:10		N	A	X	X	X	X			
008	Trip Blank	—	—				X						

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	12/6/18 11:05		12/6/18 11:05
	12/6/18 1135		12/6/18 1135
	12/6/18 1340		12/6/18 1340

PACE Project No. 40180602

Receipt Temp = R9 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Kapp

Project # 40180602

All containers needing preservation have been checked and noted below: □Yes □No □N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/ Time:

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : □Yes □No □N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40180602

40180602

Client Name: Kapur

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - NP **Type of Ice:** Wet Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: RO

Temp Blank Present: ☐ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 12/6/18
Initials: CMB

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. invoice to, page #1 CMB 12/6/18
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☐Yes ☑No ☐N/A	12. 007 label is blank placed by process of elimination CMB 12/6/18
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): B814101VB		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 12/7/18

APPENDIX D

CAP MAINTENANCE PLAN

COVER MAINTENANCE PLAN

Date:	February 9, 2023
Site Name:	Cristo Rey Jesuit High School
Address:	1818 W National Avenue Milwaukee, WI 53202
Property ID:	4339927111
Legal Description:	LANDS IN SE 1/4 SEC 31-7-22 LANDS IN SD 1/4 SEC AND PARCELS 1 & 2 CSM NO 4352 COM AT A PT 35' S OF THE NW COR OF SD 1/4 SEC BEING THE S LI OF W PIERCE ST & THE E LI OF S 20TH ST-TH S 337.89'-TH N 88DEG 29' 19' E 188.0'-TH S 44DEG O2' 28' E 82.0'-TH S 21DEG 31' 55' E 80.0' TO A PT ON N LI OF W NATIONAL AV-TH ELY ALG SD LI 575.68' TO A PT-TH NLY 402.91' TO A PT IN S LI W PIERCE ST-TH WLY 848.55' TO THE PT OF COMM
WDNR ID:	BRRTS# 02-41-583465 FID# 241878450

INTRODUCTION

This Cover Maintenance Plan (CMP) for the above referenced site ("Site") was prepared in accordance with s. NR 724.13(2), Wisconsin Administrative Code. The format of this CMP generally follows Wisconsin Department of Natural Resources (WDNR) Publication RR-980, dated April 2014.

Additional Site-specific information can be found in:

- The case file in the WDNR Southeast Region office (the current WDNR project manager for the Site is Linda Michalets);
- BRRTS on the Web (WDNR EM/RR BOTW (wi.gov));and
- RR Sites Map (Wisconsin DNR).

Current and all subsequent Property Owners shall maintain a copy of this CMP and make it available to their employees or contractors conducting cover inspections and maintenance activities.

D.1. DESCRIPTIONS

Site Description

The Site is a 7.59-acre parcel currently developed with a school building, drive and parking areas, limited landscaping, and artificial turf athletic field. A map depicting the layout of the Site is included as **Attachment D.2.**

Description of Residual Soil Contamination

Residual soil contamination consists primarily of shallow fill soils with polynuclear aromatic hydrocarbon (PAH) and Resource Conservation and Recovery Act (RCRA) metals concentrations greater than WDNR industrial direct contact residual contaminant levels (RCLs). There are also volatile organic compounds (VOCs) at concentrations exceeding WDNR groundwater pathway RCLs.

Residually impacted soils exceeding the WDNR industrial direct contact RCLs are located from approximately 0.5 to 4 feet (ft) below ground surface (bgs) and impacted soils exceeding the WDNR soil to groundwater pathway RCLs were encountered at depths to 13.5 ft bgs at the Subject Property. Due to the nature of fill-contaminated sites, the potential exists for contamination to exceed RCLS at any location across the Subject Property. Therefore, the cover materials over the entire site will be maintained to limit contact with contaminated soils, and limit infiltration of surface water through the contaminated soils.

Cover to be Maintained

The WDNR-approved cover consists of the following components:

- School building;
- Artificial turf athletic field;
- Paved drive/parking areas;
- Limited landscaped areas.

The extent of the cover to be maintained covers the entire Subject Property as depicted on **Attachment D.2.** Photographs of the cover are included in **Attachment D.3.**

Cover Purpose

The purpose of the cover is to prevent direct contact with impacted fill soils and limit infiltration of rain water that could lead to the migration of contaminants.

Cover Inspection

The cover shall be inspected once per year, normally in the spring after the snow melt. The annual inspection shall assess the cover for damage or deterioration (e.g., settling or weathering cracks, stormwater erosion rills, or deterioration of turf materials).

A log of the cover inspections and any repairs shall be completed and maintained. A copy of the inspection log (WDNR Form 4400-305, Continuing Obligations Inspection and Maintenance Log) is included as **Attachment D.4.** The log shall include a description of the condition of the cover; recommendations for repair or maintenance; documentation of the implementation of recommended repairs or maintenance; and photographic documentation of inspection, repair, and

maintenance activities. Any area where soil beneath the cover has become exposed shall be documented. A copy of the completed logs shall be kept on-Site or at the address of the property owner and be available for submission to or review by WDNR upon request.

Cover Maintenance

Repairs to the cover shall be conducted if the inspection reveals excessive settling, cracking, erosion, or other deterioration. Repairs shall be conducted by the owner as soon as practical. Manufacture maintenance guidelines for the Artificial turf athletic field is included in **Attachment D.4.i**. The repair activities will generally include, but are not limited to, the following:

- Patching, crack-sealing or resurfacing;
- Regrading and compacting eroded areas;
- Repairing damaged or deteriorated turf.

If maintenance activities expose the underlying impacted soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). If underlying impacted soil is excavated, it will be replaced under the re-established cover or transported to an appropriately licensed facility for landfill disposal pursuant to a waste profile established by the property owner. If temporary stockpiling of impacted soil is necessary during maintenance, the stockpiled impacted soil shall be placed on heavy-duty plastic sheeting and covered with a secured tarp or plastic sheeting.

In the event the cover is removed or replaced, the replacement barrier will be functionally equal to the cover. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this CMP unless indicated otherwise by the WDNR or its successor.

Prohibition of Activities and Notification of WDNR Prior to Actions Affecting a Cover

The following activities are prohibited within the cover barrier, unless prior written approval has been obtained from the WDNR:

- Removal of the cover;
- replacement of the cover with another barrier;
- excavating or grading of the land surface;
- filling on the cover;
- plowing for agricultural cultivation; and
- construction or placement of a building or other structure.

If removal, replacement or other changes to the cover are considered, the WDNR shall be contacted at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with NR 727.07.

Amendment or Withdrawal of CMP

This CMP shall not be amended or withdrawn without the written approval of WDNR.

Contact Information

Property Owner:	Cristo Rey Milwaukee NMTC SP Attn: Mr. Andrew Stith 1818 W. National Avenue Milwaukee, WI 53214 bdavis@de475.com 414-436-4600
Consultant:	Jim Bannantine, P.G. Consultant Kapur, Inc. 400 E. Wisconsin avenue, Ste. 500 Milwaukee, WI 53202 414-779-0686 jbannantine@kapurinc.com
WDNR:	Linda Michalets Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1027 W. St. Paul Avenue Milwaukee, WI 53233 414-435-8010 Linda.Michalets@wisconsin.gov

D.2 LOCATION MAP

The potential lateral extent of shallow impacted fill material is across the Subject Property. A map depicting the location of the impacted fill is included as **Attachment D.2.**

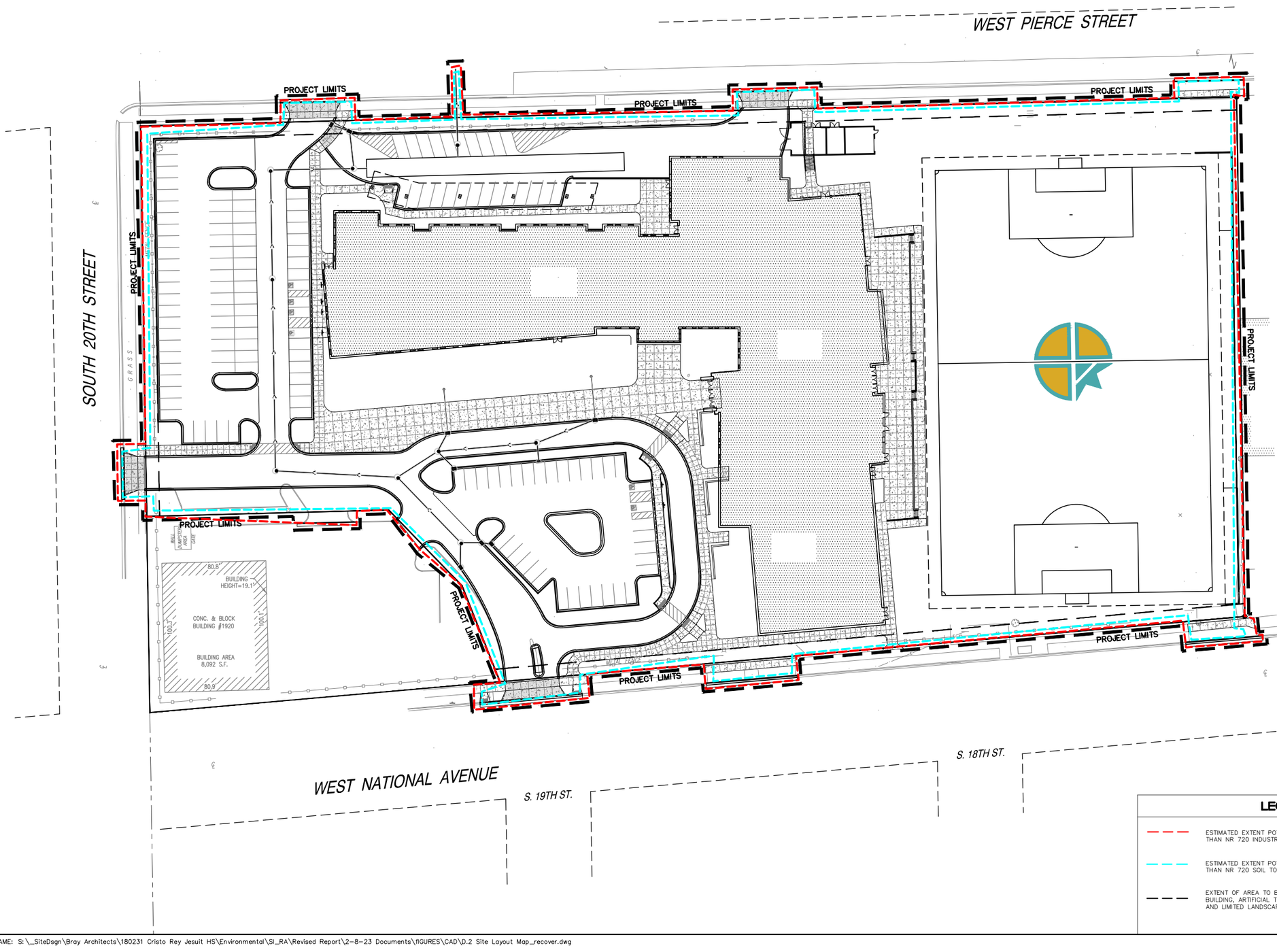
D.3 PHOTOGRAPHS OF COVER

Photographs documenting the completed cover condition are included in **Attachment D.3.**

D.4 CONTINUING OBLIGATIONS INSPECTION AND MAINTENANCE LOG

A copy of the cover inspection and maintenance log (WDNR Form 4400-305) is included as **Attachment D.4.** A copy of the manufacturer's maintenance guidelines is included as **Attachment D.4.i**.

* * * * *



LEGEND

- ESTIMATED EXTENT POTENTIAL SOIL CONTAMINATION GREATER THAN NR 720 INDUSTRIAL DIRECT CONTACT RCLS
- ESTIMATED EXTENT POTENTIAL SOIL CONTAMINATION GREATER THAN NR 720 SOIL TO GROUNDWATER PATHWAY RCLS
- EXTENT OF AREA TO BE MAINTAINED. CAP CONSISTING OF SCHOOL BUILDING, ARTIFICIAL TURF FIELD, PAVED DRIVE/PARKING AREAS, AND LIMITED LANDSCAPED AREAS.

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
SITE LAYOUT MAP

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	11/1/2022

SHEET NUMBER:
D.2

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Revised Report\2-8-23 Documents\fIGURES\CAD\D.2 Site Layout Map_recover.dwg

PHOTOGRAPHIC LOG

Photo #	Date
1	11/07/22

Description

Subject Property: Central portion of the school building (facing NE).

Photo #	Date
2	11/07/22

Description

Subject Property: Landscaped area on the south side of the school building (facing N).

PHOTOGRAPHIC LOG

Photo #	Date
3	11/07/22

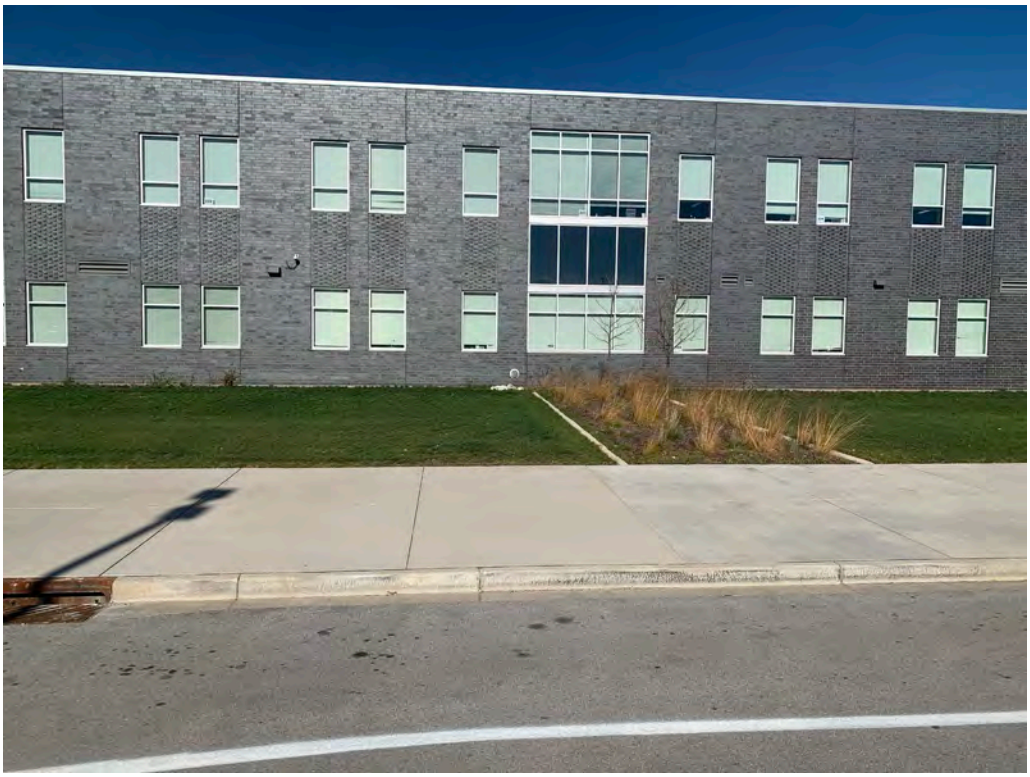
Description

Subject Property: South side of the school building (facing NW).

Photo #	Date
4	11/07/22

Description

Subject Property: South side of the school building (facing N).



PHOTOGRAPHIC LOG

Photo #	Date
5	11/07/22

Description

Subject Property: South side of the school building (facing NW).

Photo #	Date
6	11/07/22

Description

Subject Property: South side of the school building (facing N).

PHOTOGRAPHIC LOG

Photo #	Date
7	11/07/22

Description

Subject Property: Hardscape area on west side of school building (facing N).

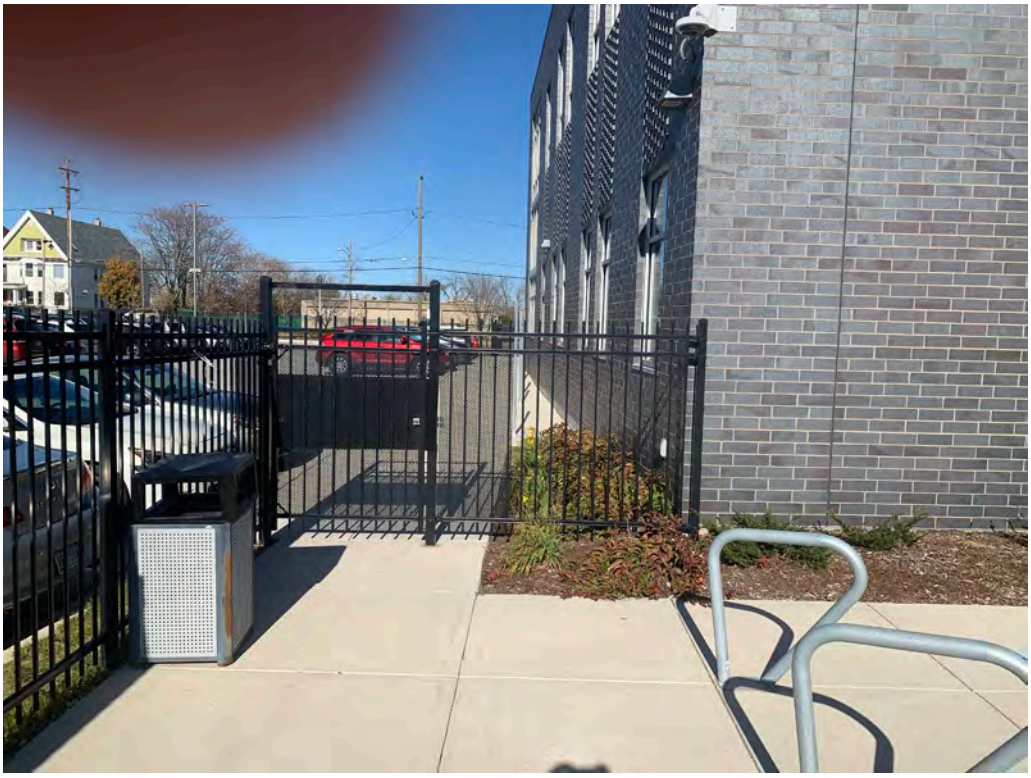


Photo #	Date
8	11/07/22

Description

Subject Property: Hardscape area on west side of school building (facing S).

PHOTOGRAPHIC LOG

Photo #	Date
9	11/07/22

Description

Subject Property: North side of the school building (facing SE).

Photo #	Date
10	11/07/22

Description

Subject Property: North side of the school building (facing SE).

PHOTOGRAPHIC LOG

Photo #	Date
11	11/07/22

Description

Subject Property: South side of the school building (facing E).

Photo #	Date
12	11/07/22

Description

Subject Property: South side of the school building (facing SW).

PHOTOGRAPHIC LOG

Photo #	Date
13	11/07/22

Description

Subject Property: Landscaped area on the east side of the school building. Southwest corner of the artificial turf athletic field (facing NE).

Photo #	Date
14	11/07/22

Description

Subject Property: Landscaped area on the east side of the school building. Southwest corner of the artificial turf athletic field (facing N).

PHOTOGRAPHIC LOG

Photo #	Date
15	11/07/22

Description

Subject Property: Southeast corner of the Artificial turf athletic field (facing N).

Photo #	Date
16	11/07/22

Description

Subject Property: Southeast corner of the Artificial turf athletic field (facing NW).

PHOTOGRAPHIC LOG

Photo #	Date
17	11/07/22

Description

Subject Property: Southeast corner of the Artificial turf athletic field (facing NW).

Photo #	Date
18	11/07/22

Description

Subject Property: Landscaped area on the east side of the school building. Northwest corner of the Artificial turf athletic field (facing SE).

PHOTOGRAPHIC LOG

Photo #	Date
19	11/07/22

Description

Subject Property: Northwest corner of the Artificial turf athletic field (facing SE).

Photo #	Date
20	11/07/22

Description

Subject Property: Northwest corner of the Artificial turf athletic field (facing E).

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (R 7/20)

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site) Name	BRRTS No.
Cristo Rey Jesuit High School - Historic Fil	02-41-583465

Inspections are required to be conducted (see closure approval letter):

- (●) annually
- ( ) semi-annually
- ( ) other – specify ____________________

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

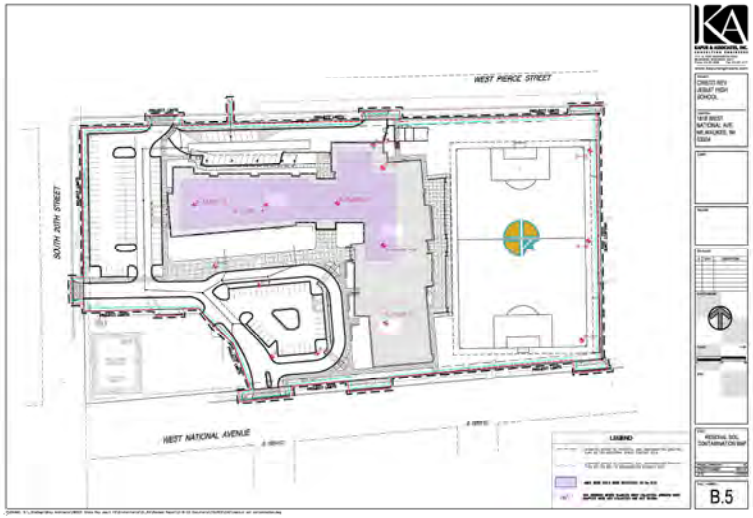
Linda.Michalets@wisconsin.gov

Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maintenance	Previous recommendations implemented?	Photographs taken and attached?
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N

Continuing Obligations Inspection and Maintenance Log

{Click to Add/Edit Image}

Date added: 02/17/2023



Title:

{Click to Add/Edit Image}

Date added:

Title:

YOU BOUGHT THE BEST

NOW GIVE IT THE CARE IT DESERVES

FieldTurf®

MAINTENANCE GUIDELINES

TABLE OF CONTENTS

WELCOME TO FIELDTURF!

It is my great pleasure to count you as part of the ever growing FieldTurf family. We're honored that you've chosen us to surface your facility with our world-class leading systems.

Proper maintenance will not only keep your field looking and playing at its best, but first and foremost it will provide your athletes with a playing surface that will assist them to perform at the peak of their abilities. At this time we invite you to read through our Maintenance Guidelines and keep them as a reference, when needed.

Have a question? Our dedicated team is here to help.

Phone: 1-877-725-TURF (8873)
E-Mail: customerservice@fieldturf.com

Again, thank you for being part of the family!

Sincerely,

Eric Daliere
President

CONNECT WITH YOUR FIELD

Join our exclusive customer program

CUSTOMER CONNECT

Please visit **fieldturf.com/en/customer-connect/** to sign up for this exclusive online aid for tips and information on overall care of your FieldTurf field.

GETTING STARTED - THE ESSENTIALS
MAINTENANCE GUIDELINES ACCEPTANCE FORM

Ensure that the Maintenance Guidelines are read and understood by the proper maintenance personnel and that a copy of the Acceptance Form is signed and sent back to FieldTurf within 30 days of completed installation.

FieldTurf Owner's Manual Acceptance Form

Field Name: _____ **Field Location:** _____

Owner Representatives Present: (Name & Title)

1. _____ 2. _____

3. _____ 4. _____

Training Session:

Date provided: _____ Duration: _____

The following were reviewed during the session:

- ☐ FieldTurf Maintenance Guidelines
- ☐ Infill Replenishment Practices (High Traffic Areas)
- ☐ BARS
- ☐ FieldCare – New Field Program Offer

Description of Equipment Provided: _____

_____

_____

- ☐ Maintenance equipment assembled by installation crew
- ☐ Equipment demonstration set up on utility vehicle provided by field owner
- ☐ Field maintenance training provided by installer with "Field Demo"

	Quantity Stock
Field rolls - quantity:	
Sand - quantity (tons):	
Rubber - quantity (tons):	
Colored turf:	
Colored turf:	
Colored turf:	
Colored turf:	
Other:	
Date received maintenance equipment:	

I, the undersigned, acknowledge having received the FieldTurf Owner's Manual for the product purchased by the Owner. By signing this document the Owner confirms that the above listed items have been provided/completed in conformance with the project requirements and delivered/accepted by the Owner.

Please give original copy to FieldTurf Representative and keep a photocopy for your records. **Read, Agreed and Accepted**

Authorized Personnel Name: _____ Authorized Signature: _____

Organization: _____ Date Submitted: _____

Installation Foreman: _____ Foreman Signature: _____

Certified Installer's Company: _____

MAINTENANCE LOG

Make sure all maintenance is done on a timely basis, and use our maintenance log chart to keep an up-to-date reference of all work done on your field. This will help you keep a record of all maintenance procedures performed.

Official FieldTurf Maintenance Log

FieldTurf® A Tarkett Sports Company

Date Form Submitted (M/D/Y): _____ Organization: _____

Name of Field: _____ Name of Maintainer: _____

STAGES	DATE	NAME	SIGNATURE
Surface Brushing **Recommended Frequency:** Every 4-6 weeks	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Surface Aerating **Recommended Frequency:** Maximum 2-3 times/year (beginning in 2nd year)	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Surface Raking **Recommended Frequency:** Every 4-6 weeks	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Surface Sweeping **Recommended Frequency:** As needed	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Additional Maintenance Activities (specify) **Recommended Frequency:** As needed	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Complete Inspection of Line Markings, Seams and High Traffic Areas **Recommended Frequency:** As needed	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Infill Top Dressing (high-traffic areas) **Recommended Frequency:** As needed	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		
Snow Removal (if applicable) **Recommended Frequency:** As needed	M/D/Y		
	M/D/Y		
	M/D/Y		
	M/D/Y		

There are three ways to submit this completed form:

1. **Fax:** 514-340-9374
2. **Email:** customerservice@fieldturf.com
3. **Physical Mail:** 7445 Côte-de-Liesse Road Suite 200, Montreal Quebec H4T 1G2 Canada

Tarkett SPORTS

An editable copy of the FieldTurf Maintenance log can be downloaded at: **customerconnect.fieldturf.com**

BARS

BRUSHING AERATING RAKING SWEEPING

THERE ARE 4 BASIC MAINTENANCE OPERATIONS THAT ALL FIELDTURF FIELDS REQUIRE ACCORDING TO OUR RECOMMENDED MAINTENANCE SCHEDULE.

WE SIMPLY CALL IT BARS
BRUSHING, AERATING, RAKING AND SWEEPING.

TOW VEHICLES: The minimum requirement to pull groomers and sweepers should be vehicles that have at least 20HP and be equipped with Turf tires. Vehicles should not exceed 70 PSI / 1080 PSF of pressure on the Turf/Base system. Hydraulic capabilities are not necessary with any of FieldTurf's current Groomers or Sweepers as all are mechanically driven.

SETTING SWEEPERS: When setting Sweepers for use, make sure that the brushes never penetrate the infill. Proper removal of debris will only require the brushes to penetrate the top of the fibers.

SETTING GROOMERS: When setting the Groomer components for use, the rotating tines should penetrate the infill by 3/4". The rakes should penetrate the infill by 1/2". The brushes should not penetrate the infill.

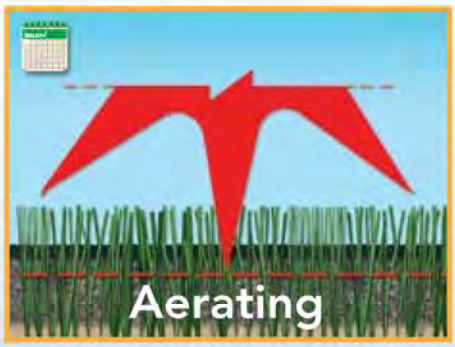
N.B. If you are subscribed to a Field Care Program, please consult your Field Care Manager for recommended grooming frequencies. Grooming systems equipped with internal/external rotary brushes should be limited to frequencies of 2-3 times per year.

A SUMMARY OF THE STEPS TO FOLLOW FOR LONG-LASTING PERFORMANCE

BRUSHING

Rejuvenates the matted fibers and levels the top portion of the infill.

EVERY 4-6 WEEKS



AERATING

Rotating tines are designed to penetrate and loosen the infill to avoid minor compaction.

MAXIMUM 3 TIMES/ YEAR (BEGINNING 2ND YEAR)

RAKING

Prevents fibers from matting down and ensures that the infill is loosened.

EVERY 4-6 WEEKS

SWEEPING

A clean field ensures that foreign material or debris does not get into the infill.

AS NEEDED

OTHER NECESSARY MAINTENANCE PROCEDURES SHOULD BE DONE PERIODICALLY AND ACCORDING TO USAGE.

INSPECT LINES & MARKINGS

It is important to notify our Customer Service department if any line markings or seams come apart.

as needed

INFILL TOPDRESSING

Adding rubber to the top layer of infill may be necessary in high traffic areas.

as needed

SNOW REMOVAL

If you need to remove snow from your field, adhering to proper guidelines is vital. (See page 36)

as needed

FIELD COVERING

Use FieldTurf Armour protection systems for any events that require field covering and vehicle access. (See page 21-26)

Maintenance Guidelines

PureFill


Brushing


Aerating


Raking


Sweeping

Surface Anti-Static Treatment using Boom sprayers	**RECOMMENDED FREQUENCY:** On an as-needed basis for the initial break-in period of the field. Dilute the FieldTurf Static conditioner in water at the recommended rates and apply the solution to your field. N.B.: Given the porous nature of the PureFill infill, drying times could be longer than other infills. This also applies following rainfall.
Surface Brushing	**RECOMMENDED FREQUENCY:** Every 2-3 weeks or more frequently during heavy use periods. Serves to keep the infill level consistent throughout the field of play. Infill levelling might also be required following a heavy rainfall.
Surface Aerating	**RECOMMENDED FREQUENCY:** Maximum 3 times/year. This serves to raise the infill level and avoid over-settling. Timing would be ideally in the spring and after heavy use, such as after a full sport season. (Beginning in the 2nd year of use).
Surface Raking	**RECOMMENDED FREQUENCY:** Every 3-4 weeks or more frequently during heavy use periods and/or heavy rainfalls. This can be done in tandem with Surface Brushing.
Surface Sweeping	**RECOMMENDED FREQUENCY:** As needed. The presence of foreign debris must be controlled and is recommended as often as required.
Complete Inspection (Line markings, seams and high-traffic areas)	**RECOMMENDED FREQUENCY:** As needed. A weekly walk-through inspection is recommended to monitor the need for minor repairs, infill touch ups in high traffic areas and potential sweeping up of debris.
Infill Top Dressing	**RECOMMENDED FREQUENCY:** As needed to maintain the specified infill depth. In high-traffic areas this could be as often as once a week, given the lightweight nature of the PureFill infill.

What to Expect

PureFill

FieldTurf PureFill systems feature an infill mix made up of sand with a layer of cork granules. There are many real benefits associated with PureFill systems such as proven top surface level heat reduction, fire-resistance, and a very natural aesthetic – due primarily to the layer of granulated cork infill used in the PureFill system.

It should also be noted that due to its porous nature, the Purefill infill might need a bit longer drying time following anti-static application or rainfall than other types of infill.

The settling process of natural infill material is different than that of traditional infill materials. The three points below outline what to expect with the PureFill system material.

Surfactant & Anti-Static Application

Aeration Activity

Groom Right

1. Additional Installation Procedures that FieldTurf will Undertake on PureFill Fields

FieldTurf will ensure that the infill material is well aerated prior to applying the final cork top layer. A surfactant and anti-static liquid will also be applied to the infill layer to combat naturally-occurring static and surface tension that could, under certain outdoor conditions, contribute to infill displacement and prevent water flow through. This is a preventative measure.

2. A Prolonged Natural Settling Process

Due to the lighter weight of the natural cork granule, some cork infill displacement is expected to occur after the first couple of heavy rainfalls and/or in temperatures that could create temporary static charge of the infill. This is expected and part of the infill's natural progression to a more settled state. Any displaced infill can be brushed back into the body of the field, some infill addition might be needed in certain areas.

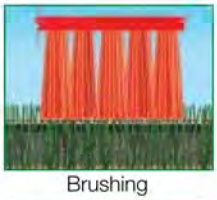
3. Regular Brushing & Anti-Static Application

There are a few additional maintenance items associated with the PureFill system. The field might need to be brushed every 2-3 weeks and after each heavy rainfall. An application of FieldTurf Anti-Static might be necessary in the first few months of the life of your field. This is an environmentally friendly product that is diluted in water. Hopefully the benefits of this system will far outweigh the tasks of additional maintenance steps required and the system will provide the ultimate playing surface for your athletes for years to come.

Maintenance Guidelines
PureGeo

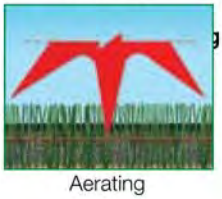
Water Treatment using: Irrigation systems, Kifco Water reels or Boom sprayers

RECOMMENDED FREQUENCY:
Watering for a typical 80,000 sq. ft. field would be as follows:
If the ambient humidity is > 50%-6,500 gallons (10oz./sq. ft.)
If the ambient humidity is < 50%-8,000 gallons (12oz./sq. ft.)
Moisture readings should be taken once a week if no precipitation has occurred. Ideal readings should be between 30%-50% moisture content.


Brushing

Surface Brushing

RECOMMENDED FREQUENCY:
Every 3-4 weeks or more frequently during heavy use periods.
Serves to keep the infill level consistent throughout the field of play.
Infill levelling might also be required following a heavy rainfall.


Aerating

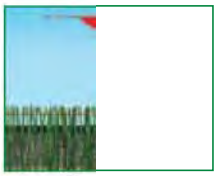
Surface Aerating

RECOMMENDED FREQUENCY:
Maximum 3 times/year. This serves to raise the infill level and avoid over-settling. Timing would be ideally in the spring and after heavy use, such as after a full sport season. (Beginning in the 2nd year of use)


Raking

Surface Raking

RECOMMENDED FREQUENCY:
Every 3-4 weeks or more frequently during heavy use periods and/or heavy rainfalls. This can be done in tandem with Surface Brushing.


Sweeping

Surface Sweeping

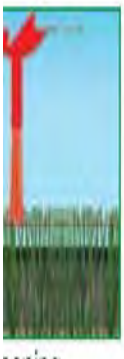
RECOMMENDED FREQUENCY:
As needed. The presence of foreign debris must be controlled and is recommended as often as required.

Complete Inspection (Line markings, seams and high-traffic areas)

RECOMMENDED FREQUENCY:
As needed. A weekly walk-through inspection is recommended to monitor the need for minor repairs, infill touch ups in high traffic areas and potential sweeping up of debris.

Infill Top Dressing

RECOMMENDED FREQUENCY:
As needed to maintain the specified infill depth. In high-traffic areas this could be as often as once a week. An entire field top dressing would be done once/twice per year requiring 4-5 1,500 lb bags (3-5% of the total infill found in a field) of attic stock per application. **Given the nature of the Infill composition, this step will be mandatory to maintain designated infill levels and ensure the ultimate performance qualities of the playing surface.**


aaning


Water Reel


Moisture Thermometer


Brushing

What to Expect
PureGeo

FieldTurf PureGeo systems feature an infill mix made up of organic coconut peat, cork and a bottom layer of sand. There are many real benefits associated with PureGeo systems, such as proven top surface level heat reduction and a natural aesthetic quality.

PureGeo infill has varying levels of moisture content depending on the climate in which it is installed. As indicated in the Maintenance Guidelines it will be required to maintain this moisture level throughout the life cycle of the field.

The following are what to expect with the PureGeo system.

1. Color Change

The infill might reflect a change in color throughout its lifespan. However, this change will not affect PureGeo's benefits.

2. Staining

The natural properties of PureGeo infill might lead to clothing stains. Either soaking the stained areas or simply applying conventional stain removing spray agents is recommended.

3. Freezing

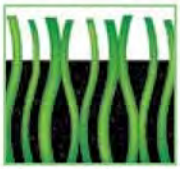
Depending on the climate, the high moisture content could lend itself to being vulnerable to freezing due to ambient temperature changes.

4. The Need for Infill Addition

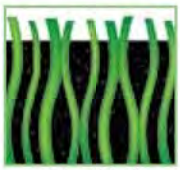
High-traffic areas will need to be monitored for infill addition as needed. An entire field top dressing would likely be needed once/twice per year in order to maintain the designated infill levels and ensure the ultimate performance qualities of the playing surface.

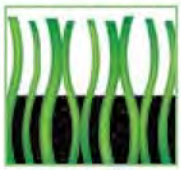
Maintenance Guidelines for FieldTurf DoublePlay Baseball Fields

DOUBLEPLAY



Proper Infill Level


Over Filled


Under Filled


Brushing


Aerating


Raking


Sweeping

In addition to our standard maintenance guidelines, we recommend that you pay close attention to the following DoublePlay specific items:

Proper Infill Depth

At all times, there must be no less than 1/2" and no more than 3/4" fiber showing above infill. Maintaining the infill level is critical to fiber performance and player safety. Specific attention must be given to the home plate and first base areas (if covered by FieldTurf). We recommend that the infill levels be measured and remediated at these areas after every game and practice.

Surface Brushing

RECOMMENDED FREQUENCY: Every 2 weeks or as needed to maintain proper infill depth and fiber appearance.

Surface Aerating

RECOMMENDED FREQUENCY: Maximum 3 times/year, ideally after every sport season and after snow clearing, if applicable (beginning in 2nd year).

Surface Raking

RECOMMENDED FREQUENCY: Every 4-6 weeks or as needed to maintain proper infill planarity and infill depth.

Surface Sweeping

RECOMMENDED FREQUENCY: As needed.

Complete inspection
(of line markings, seams and high-traffic areas)

RECOMMENDED FREQUENCY: As needed.

Infill top dressing

RECOMMENDED FREQUENCY: As needed to keep proper infill depth. This will be a necessary periodic maintenance item given the nature of athletic activity on most baseball fields, especially in the high-traffic areas – home plate, first base, second base, third base.

Home Plate Area

We recommend that the home plate area, when covered with FieldTurf, be protected with an alternative turf surface during practices.

Information
(800) 724-2969

FieldTurf DoublePlay Infill Depth Maintenance

In order to properly maintain the infill depth on FieldTurf baseball fields, it is essential to have the following simple tools available at all times.

Essential Infill Depth Maintenance Tools

- **Plastic Handheld Rake**
- **Plastic Handheld Infill Scooper**
- **Infill Depth Gauge**

With a few simple steps using your essential infill depth maintenance tools, infill can easily be added and leveled out for areas on the field that are low on infill. These areas are typically such as the home plate area, first base, second base, and third base.

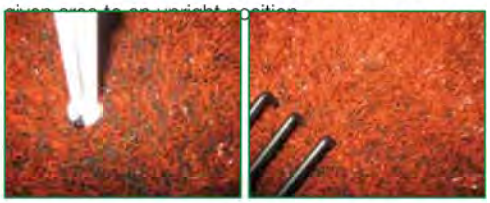
With a few simple
added and levele

, loosen the black screw at the bottom of the depth gauge, ush with the top of the infill, and move the top lever down the infill to the turf backing. Verify and record that the depth The infill depth should always be such that 0.5" to 0.75" e infill. That translates to an infill depth of 1.25" for any of all products featuring turf fiber heights of 2"or 1.75".

***Note:** When inserting the needle into the infill, do not press too hard or you might damage the depth gauge. Ensure that the needle is not bending in order to get an accurate depth measurement.

Step 2

Identify the areas with low infill using your infill depth gauge, and brush or lightly rake the fibers in the given area to an upright position.



Step 3

Add required amount of SBR cryogenic rubber infill to get the low infill area to its proper specified depth using the plastic handheld infill scooper.

Step 4

Rake the infill into the turf with the plastic handheld rake. Minimal force is required to work the added infill into the turf. Once complete, ensure that the infill is evenly placed in the given area using your infill depth gauge.

When Areas are Clay: (Home Plate, Pitcher's Mound, and Base Areas)

It will be imperative to brush the clay that has migrated from the areas mentioned above back from the turf areas. Daily monitoring is recommended. If the clay has been accumulating in the grass border for quite some time, the "clean-up" will require substantially more time and effort to restore to its original state.

The tools required will be: Stiff-bristled push brooms, rakes or "Power" brooms.

Following this step, Infill will likely need to be replenished in the grass area border. This procedure is identical to the steps shown previously where the aforementioned areas are turf.

Maintenance Guidelines EasyField

The most important factors to keep the EasyField product functioning at its best will be Sweeping or vacuuming to keep the surface clean. Brushing might be required to re-dress the fibers and blend the seams back in when re-installing, however a sweeper will generally accomplish the same function.

Sweeping Equipment

Since no Infill appears in EasyField system, the “Filter” feature in our conventional sweepers is not required, but of course the SweepRight model can still be used. If space is limited and pull behind units are not practical, any traditional walk-behind “Push” model available in hardware stores are adequate.

Vacuuming

Due the lack of Infill in the system, any Vacuum system can be used to pick up debris.

Brushing

If a Drag brush is used, a 4’ model will be sufficient, however, a wider unit (7’ model) can be used if space restrictions and turning radius are not an issue.

Tow Vehicle

A Golf Cart or small Gator can be used to tow either the Sweeper or Groomer.

Painting & Removal

There are 2 options for Temporary paint application on the EasyField panels. Either applying Chalk paint in Aerosol Cans with an applicator or liquid paint with an Airless sprayer.

Reasonably priced walk-behind Removal units are also available. Please contact your Customer Service Co-Coordinator for more Information.

Maintenance Guidelines Field Hockey

The most obvious cleaning needed by FieldTurf Field Hockey Series Products is the removal of litter left behind by field users and spectators. Encourage good housekeeping by making sure that enough containers are provided for trash. Try to route the field access traffic in such a way as to minimize the tracking-on of mud or dirt. Be sure that litter and loose dirt are picked up promptly before they accumulate and pack. Failure to do so can spoil the appearance of the field and affect playing quality.

Light trash and airborne dust can be removed by electrically-powered vacuum sweepers. However, the most efficient practice for more thorough cleaning is to periodically wash the field with plenty of clean water.

WATER QUALITY - Some fire protection systems use raw rather than treated water. Raw or polluted water is not recommended. Untreated water in some areas contains large quantities of dissolved hard water solids. Such water may cause a noticeable film to appear on the turf after evaporation and leave a deposit behind that is difficult to remove.

CLEANING MACHINES, DRY TYPES - Experience has shown that although vacuum-type machines are satisfactory for lifting paper scraps, food debris and loose trash from a FieldTurf Field Hockey Series Product surface, a combination vacuum/brush type of sweeper is the best equipment for picking up dirt, dust and fine foreign particles. Listed below are a number of factors to keep in mind when buying or operating vacuum/brush type sweepers on FieldTurf Field Hockey Series Products.

BRUSH COMPOSITION – FieldTurf sweepers, such as the SweepRight or similar lawn sweepers are ideal for picking up surface litter. The selected sweeper should have nylon or polypropylene bristles. The brush should contain NO metal fibers. Settings will depend on the model and type of sweeper selected, but traditionally the brushes should be set so that they just touch the top of the surface. Should you have questions regarding brush settings for various FieldTurf Sweeper units please contact FieldTurf Customer Service.

TURF LOADING - Because of the nature of the sweeping operation, vacuum-brush cleaning may require several passes over the surface to complete the job. It is recommended that any sweeper or piece of equipment used be equipped with white or grey pneumatic tires at a maximum tire pressure of 35 psi. Black tires can, at times, mark the white lines on the field. All equipment should be equipped with pneumatic, non-treaded tires and should not be left or parked on wet turf for long periods.

EXHAUST FUMES - If the sweeper has an internal combustion engine, make certain that the hot engine exhaust is not discharged down toward the playing surface. Hot objects can damage a FieldTurf Field Hockey Series Product and engine exhaust may soil it. Check to make sure that the sweeper is designed in such a way that a hot muffler or exhaust pipe cannot drop onto the FieldTurf surface.

OIL SPILLS - Should oil spills occur, they should be wiped up promptly with a clean white rag moistened with FieldTurf Scrub (4:1 ratio) specifically designed to cut through grease, oil, hydraulic fluids etc., contact FieldTurf for detailed instructions and advice.

CAUTION: Because electrically-powered vacuum cleaners may not be properly grounded, do not use them on wet or damp surfaces.

FREQUENCY OF CLEANING - The removal of loose rubbish and surface dust should be done as needed, usually about once a week on most fields. A thorough wet cleaning should be done at least once or twice a year. NOTE: The excessive use of heavy-duty power-brushing equipment can damage both the playing surface and its underpad system.

WASHING AND USE OF WET CLEANERS - FieldTurf Scrub is very effective for removing most of the soil likely to occur on FieldTurf Field Hockey Series Product surfaces, especially when the detergents are applied with mechanical wet-type carpet cleaning machines. Either a vacuum or rotary-scrubber type cleaning machines may be used, provided the manufacturer's directions for cleaning water- based hockey carpets are followed.

1) When heavily soiled, use an industrial-type carpet scrubber and a FieldScrub (1:4 solution) in warm water.

2) For light soiling, a (1:8) solution can be used.
Always rinse the surface thoroughly following cleaning. The use of a fire hose to flood the field can be effective for both dirt removal and rinsing.

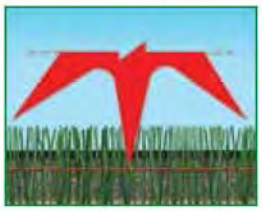
ANNUAL CLEANING - A good, hard spring or fall rain is an excellent cleaner for a FieldTurf Field Hockey Series Product surface and will provide an assist to the annual cleaning routine as described in the foregoing. However, an annual cleaning routine for heavy soiling should not be omitted.

REMOVING STAINS GENERAL INSTRUCTIONS - The first rule in spot removal is promptness. It is always easier to clean up a fresh spill than one that has dried and hardened. Remove any solid or paste-like deposit with a spatula or table knife. Depending on the nature of the "Debris", FieldScrub or FieldTurf Gum Remover can be used. Dry absorbents can then be swept or vacuumed up. FieldTurf Field Hockey Series Product surfaces have good resistance to staining. However, it is important to realize they are only one part of a sophisticated system of various components designed for overall field performance. Some cleaning agents safe for hockey grade fibers can be harmful to other components of the system.

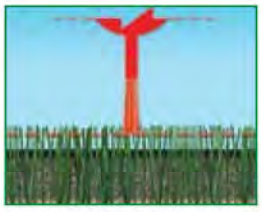
Please contact your FieldTurf Customer Service coordinator for approval of Alternative Products, if needed. FieldTurf's Gum Remover is very effective for the removal of not only gum, but also tree sap, tar, adhesives etc.

Maintenance Guidelines for FieldTurf Indoor Fields


Brushing


Aerating


Raking


Sweeping

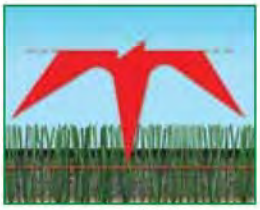

Surfactant & Anti-Static Application
FieldTurf Scrub Detergent
FieldTurf Static Conditioner

Surface Brushing	Every 2 to 3 weeks. Maximum.
Surface Aerating	Max 3 times per year, beginning in 2nd year.
Surface Raking	As needed.
Surface Sweeping	As needed.
Infill Replenishment	Weekly in high traffic areas. As needed elsewhere to maintain proper infill depth with 3/4” of fiber exposed.
Infill Re-Distribution	A leaf blower may be required to clear infill from perimeter/board/wall areas.
Complete Inspection	Inspection of line markings, seams and high-traffic areas as needed.
Cleaning / Sanitizing	Use FieldScrub minimum once per year.
Anti-Static Conditioning	As needed.

PLEASE NOTE: All entrance areas should be covered to avoid premature wear.

Maintenance Guidelines for FieldTurf Lacrosse Fields


Brushing


Aerating


Raking


Sweeping

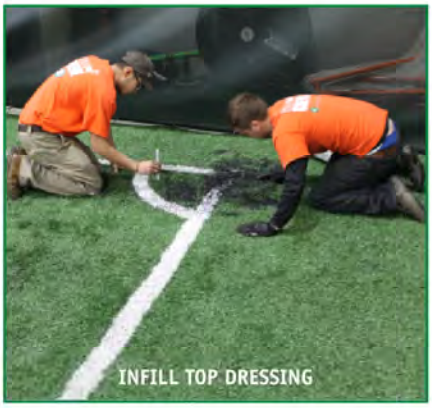
Surface Brushing	Every 4 weeks. Maximum.
Surface Aerating	Twice per year, for entire field.
Surface Raking	Every 6 weeks. Maximum.
Surface Sweeping	As needed.
Infill Replenishment	Weekly or as needed in high-traffic areas to maintain proper infill depth with 3/4" of fiber exposed.
Complete Inspection	Inspection of line markings, seams and high-traffic areas as needed.
Weekly:	• Verify inlaid markings at crease areas, fans, and center face-off for infill levels and fiber layover. • Practice and "Drill" areas, in and around the goal also need to be checked more regularly to make sure infill depth is within the normal range. • Add infill to all key critical field areas.
Annually:	Field inspection by trained FieldTurf "FieldCare" personnel is recommended. If needed, yearly or bi-annual additional inspection and grooming can be discussed with our trained personnel, depending on field usage.

Maintenance Guidelines per infill

Infill	Description	Anti Static Conditioning	Water Treatment	Infill Replenishment	Surface Brushing
CRYOGENIC & AMBIENT RUBBER	High grade rubber granules	As needed	N/A	N/A	4-6 weeks
COOLPLAY	Extruded composite made from polymer & mineral materials	As needed	N/A	N/A	4-6 weeks
PUREFILL	100% organic cork infill	See specific guidelines Page 8	N/A	N/A	2-3 weeks
PUREGEO	Primarily coconut peat and/or cork	As needed	See specific guidelines Page 10	See specific guidelines Page 10	3-4 weeks
PURESELECT	Granulated olive cores. U.S. made	As needed	N/A	N/A	4-6 weeks
ECOSENSE EPDM	Copolymer of ethylene & propylene having diene linkages that can be cross-linked with peroxides or sulfur	As needed	N/A	N/A	4-6 weeks
ECOGRIND	Rubber mixture primarily from running shoes	As needed	N/A	N/A	4-6 weeks
ECOMAX	High quality TPE	As needed	N/A	N/A	4-6 weeks
ECOGREEN	High quality TPE	As needed	N/A	N/A	4-6 weeks
COATED ENVIROSAND	Acrylic coated sand	As needed	N/A	N/A	4-6 weeks


ANTI STATIC CONDITIONING


WATER TREATMENT/STATIC APPLICATION/SANITIZING


INFILL TOP DRESSING

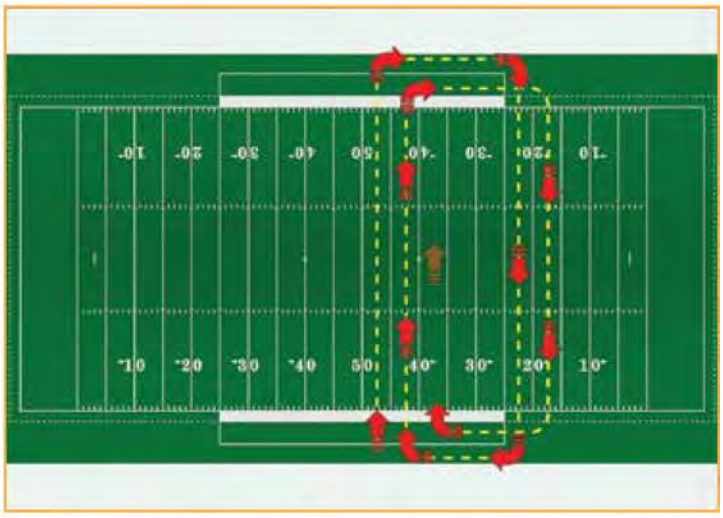

BRUSHING


AERATING

Surface Aerating	Surface Raking	Surface Sweeping	Complete Inspection	Infill Top Dressing (High-Traffic Areas)	Cleaning/ Sanitizing
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	3-4 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	3-4 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year
2-3 times/ year (max)	4-6 weeks	As Needed	Weekly	As Needed	Once/Twice per year

DIRECTION OF OPERATION

This diagram indicates the ideal method of operation for all FieldTurf machines and BARS procedures. Starting on the sidelines at the edge of the center of the field, cross the field from one side to the other in a straight line. Then go down the sidelines 25 yards and cross the field again to the other side. Next, go up the field 20 yards and cross the field again. Repeat this procedure from the center to both ends of the field until the grooming is complete. Rotating start position and end direction is recommended. The last passes should be end to end on the side panels.

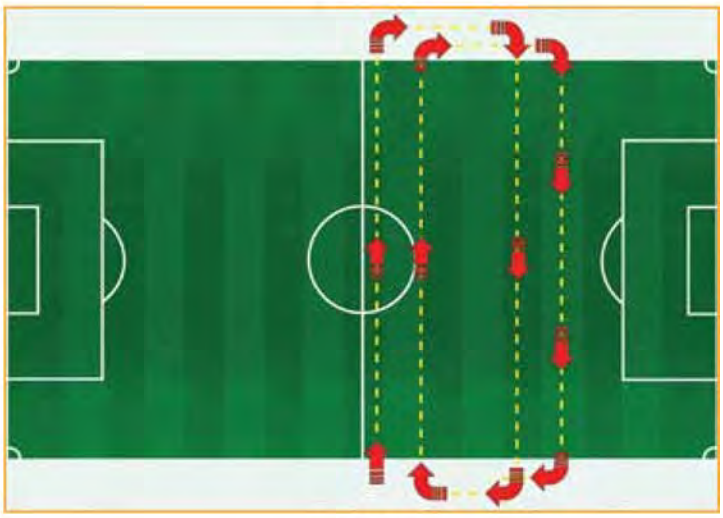


FOOTBALL

KEY FACTS ABOUT FIELDTURF MAINTENANCE EQUIPMENT

IMPROPER USE CAN DAMAGE YOUR EQUIPMENT AND YOUR FIELD. PLEASE TAKE NOTE OF THE FOLLOWING KEY FACTS:

- Make sure all equipment is clean before entering the field
- Do not operate any equipment until it is on the field
- Do not operate any equipment while in a stationary position
- Always turn off equipment just before stopping
- When sweeping, check your collector basket immediately after starting and do so often
- Collecting too much rubber while sweeping will indicate improper settings
- Pay special attention to high traffic areas, where the fibers and infill levels may be different from other parts of the field, and adjust your settings accordingly. As with any equipment, always read the manual before operating.



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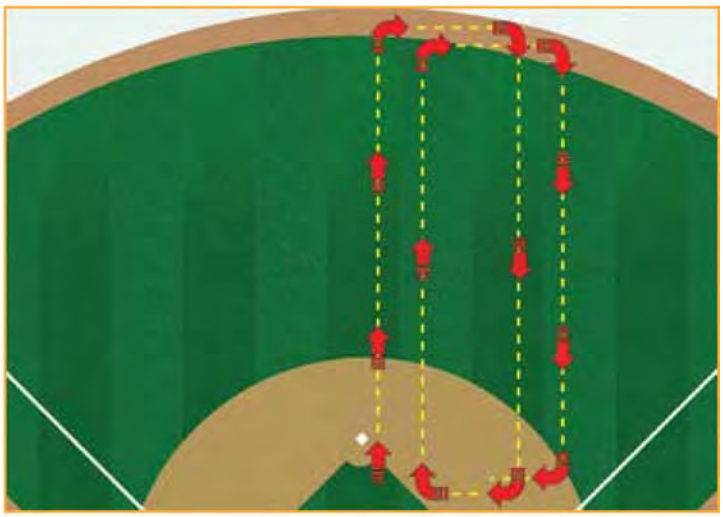


BASEBALL

APPROVED ACTIVITIES

OUR FIELDTURF SURFACE HAS BEEN DESIGNED FOR THE FOLLOWING APPROVED AND PERMITTED ACTIVITIES, IN ADDITION TO A WIDE RANGE OF NON-SPORTING ACTIVITIES:

Athletics such as shot put, hammer throw, discus and even javelin (fitted with a rubber tip), can be occasionally performed on FieldTurf. Ideally, the landing area should be outside the playing area but if unavoidable the field should be covered with alternative covering to prevent damage to the FieldTurf surface.

To insure optimum performance of your FieldTurf field we recommend that repetitive training drills and activities be rotated to prevent continuous wear at a single location.

- Football
- Field Hockey
- Baseball/Softball
- Lacrosse
- Soccer
- Rugby
- Physical Education
- Pedestrian traffic
- Graduation
- Concerts
- Events
- Outdoor Ice Hockey Games

PROHIBITIONS

Your FieldTurf field should be kept free from food, gum, sunflower seeds, glass, cigarettes, fireworks, driving stakes and any sharp objects that will risk damage to the field and injury to players. Your field should also be kept free from debris, leaves, paper and windblown material. It is imperative that your FieldTurf field be a designated non-smoking area. Unauthorized maintenance equipment and personnel are prohibited.

FIELDTURF SUPPLIES ITS CLIENTS WITH 2 COMPLIMENTARY SIGNS TO HANG AT THE ENTRANCE OF THE FIELD AND AROUND THE PERIMETER IN ORDER TO CLEARLY DEMONSTRATE THE MAJOR PROHIBITIONS ON FIELDTURF.

GRADUATION GUIDELINES

FieldTurf has developed ideal covering systems that are suitable for all types of events, including Graduation ceremonies, called the FieldTurf Armour systems (Pages 21-26). A request for Information/ Pricing can be obtained by visiting www.fieldturf.com/maintenance

Though it is always preferable to cover the Surface as shown in the Guidelines, budgets permitting, many have held this event without covering the main area of the field itself.

If the field is new, less than 6 months old, conditions might be different than with a mature field. Since Graduation events are traditionally held in the spring, depending on climactic conditions, the field might get a chance to "weather" through the winter months, so it will be important to test the chairs on the surface, as indicated below, if it is chosen not to cover that area of the field.

Though post chairs will generally not damage the surface, they do tend to sink a bit; a quick test will show you the end result. If post chairs are used without a Field covering however, those equipped with rubber stoppers are a must. The chairs should only create small "Divot" holes that should generally disappear when the field is groomed after the event. Again, testing the end results off the main field of play is always recommended.

Depending on the final set-up, ladies will find heels very difficult to walk in. Many have recommended that the ladies either wear/or bring "Flats" for their own comfort. Another option to full covering would be to cover the aisles with recommended covering or plywood, then conventional carpeting over the top.

It will be imperative, however, to cover the area under the staging. Either a recommended covering (i.e. FieldTurf Armour), the Equivalent protection using similar systems or 4' X 8' (3/4") plywood sheets which can be doubled or tripled, as required, under the stage footings. The thickness used will depend on the PSI that exceeds the allowable 70 PSI / 1080 PSF (as indicated in the "Vehicle Circulation" guidelines (Page 39). A tarp or plastic covering underneath should be used to avoid splinters getting into the grass.

It should be noted that your FieldTurf warranty covers the components and Installation of your FieldTurf product. Though all efforts are made to provide appropriate directives for the staging of events other than the sporting activities set out in the warranty, the responsibility remains on the owner for any mishaps or damages that might occur; however no breach in warranty exists with the staging of such events.

A thorough grooming is recommended after the event.
(See pages 40-41 if assistance is needed.)

Here are two examples:

Chairs with "Full contact to the surface" are ideal, if available. Here is an example:

FieldTurf ARMOUR

FieldTurf Armour turf protection systems are in use worldwide at prestigious arenas and stadiums and have proven themselves through extensive use. Whether you are having a large concert or a small on-field gathering, FieldTurf Armour will protect your turf against damage and keep your visitors safe and comfortable.

Increase revenue and flexibility and open your building to trade shows, concerts, corporate events, graduations and anything else you can conceive of. We have the experience, the expertise and the range of products to satisfy nearly any flooring requirement.

You can install chairs, staging and other equipment without damage. Drive forklifts, move carts and place equipment easily on artificial turf, running tracks and other sensitive surfaces.

All of our systems are interlocking, modular, expandable, and allow for unique configurations and customized layouts. FieldTurf Armour is easy to install, dismantle and store. Sections can be installed quickly and are designed for regular and repeated use.

FieldTurf ARMOUR

FIELDTURF ARMOUR GP

General Purpose Turf Protection

- Tile size: 4" x 12" x 3/4"
- Module Size: 36" x 48" x 3/4"
- Weight: 0.81 lbs per sq ft
- Supports: 8,000 lbs per sq ft
- Suitable for guest areas, chairs and light equipment
- Does not require tools - snap connection system
- Expansion joint modules to control expansion issues outdoors
- Transition edging

FIELDTURF ARMOUR MD

Medium-Duty Turf Protection

- Tile Size: 12" x 24" x 1-1/8"
- Module Size: 36" x 48" x 1-1/8"
- Weight; 1.44 lbs per sq ft
- Supports: 20,000 lbs per sq ft
- Suitable for guest areas, chairs, equipment and staging areas
- Does not require tools - snap connection system
- Expansion joint modules to control expansion issues outdoors
- Transition edging

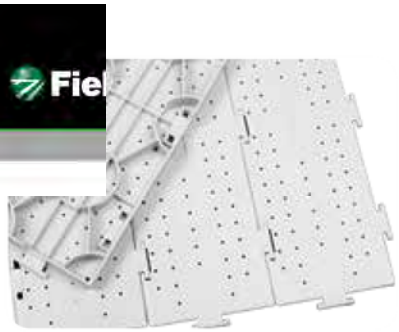
FIELDTURF ARMOUR HU

Heavy-Use Turf Protection & Portable Roadway

- Module size: 42" x 42" x 2"
- Weight: 2.45 lbs per sq ft
- Supports: 25,000 lbs per sq ft
- Suitable for guest areas, chairs, equipment, staging, trailers, vehicles and trucks
- Integrated self-aligning hook-and-loop connection system
- Secondary camlock system adds ballast
- Transition edging

FIELDTURF ARMOUR GP

FieldTurf ARMOUR
GENERAL PURPOSE PROTECTION



FieldTurf Armour GP was designed specifically for all types of synthetic turf and offers a greater level of protection against debris, liquids and dirt.

Designed to minimize wear and damage to your turf, FieldTurf Armour GP protects against surface abrasion, surface and base compaction and contamination of the turf and the infill as a result of attendee traffic.

Underside channels are contoured to eliminate sharp edges and prevent shifting of infill and of the flooring. After your event is over, simply brush your synthetic grass back into shape. Unlike older systems, it will be nearly impossible to see any distinguishable pattern in the turf.

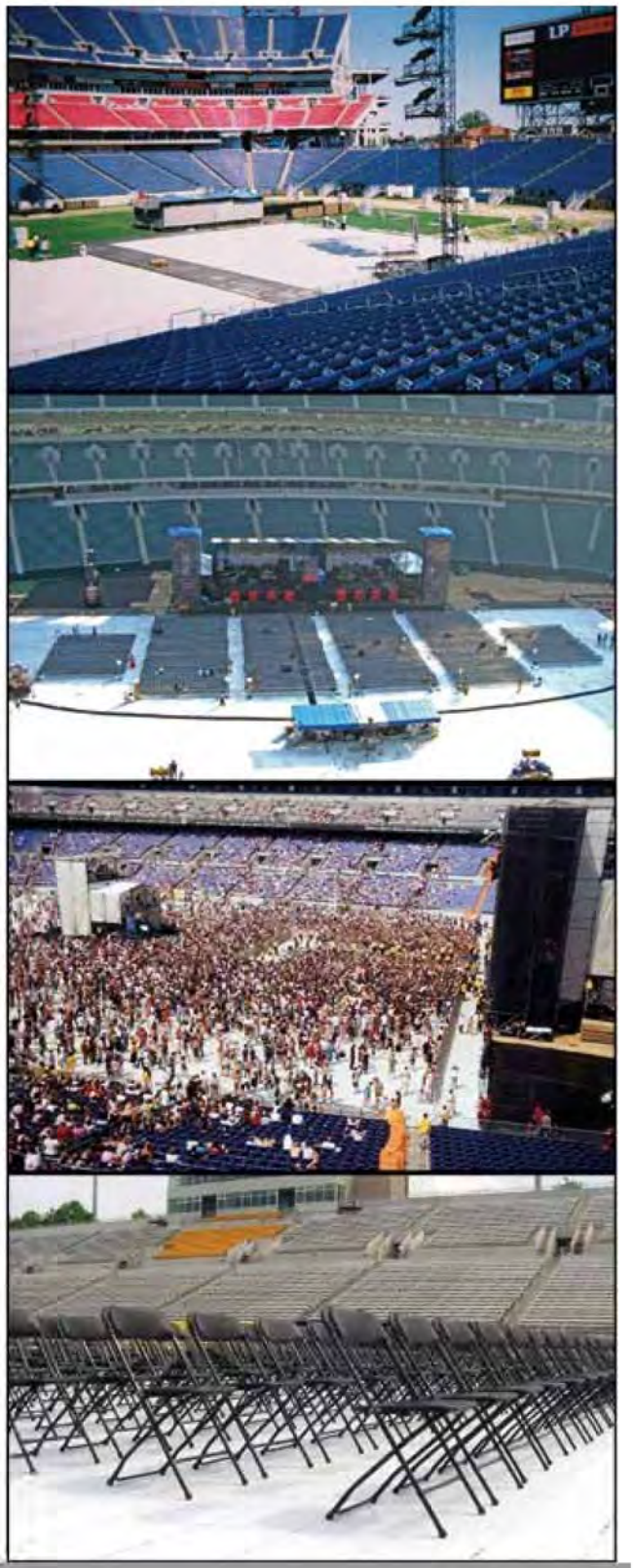
FIELDTURF ARMOUR GP DEPLOYS RAPIDLY IN ANY STADIUM

- Designed to be easily deployed without tools
- Completely expandable and configurable as required on-site
- Pre-assembled sections are packed efficiently for easy transport and storage
- Unique inter-module connection system enables tiles to snap into place in both directions
- System contours to the field as needed to accommodate surface imperfections
- An 80,000 sq/ft (7,432 sqm) stadium can be deployed in 5-6 hours with about 20 people
- Expansion joints make installation even easier

FIELDTURF ARMOUR GP IS MADE USING THE HIGHEST QUALITY MATERIALS

- High-quality co-polymer plastic has izod impact value
- Specific no-break characteristics
- 5-year UV package prevents brittleness
- High ethylene content provides flexure and prevents cracking
- Connector tabs are designed with flexure to prevent breakage

As a result of our quality material formulation, FieldTurf Armour GP is able to resist the rigors of regular use and will not break, crack, fade or become brittle. It has proven itself worldwide in all climates and conditions.



FIELDTURF ARMOUR MD

FieldTurf ARMOUR
MEDIUM-DUTY PROTECTION

Designed to offer a greater level of protection, rigidity and weight-loading capability than our GP system, FieldTurf Armour MD is perfect for large areas that require additional support for vehicles, staging and equipment.

Designed to minimize wear and damage to your turf, FieldTurf Armour MD protects against surface abrasion, surface and base compaction and contamination of the turf and the infill as a result of attendee traffic.

Underside channels are contoured to eliminate sharp edges and prevent shifting of infill and of the flooring. After your event is over, simply brush your synthetic grass back into shape. Unlike older systems, it will be nearly impossible to see any distinguishable pattern in the turf.

FIELDTURF ARMOUR MD DEPLOYS RAPIDLY IN ANY STADIUM

- An 80,000 sq/ft (7,432 sqm) stadium field surface can be deployed in 6 hours with about 15 people
- Quick turnarounds minimize the impact to the grass surface
- Pre-assembled 3' x 4' panels make storage and installation efficient
- Designed to be easily installed without the use of tools
- Completely expandable and may be configured as required on-site
- Transported and stored on standard shipping pallets for efficiency
- Robust connection system enables tiles to snap together in both directions
- System contours to the field as needed to accommodate "crowned" fields and other surface imperfections
- Robust enough to handle heavy weights, equipment, and traffic
- Flexible joints prevent breakage
- Integrated bi-directional cable

FIELDTURF ARMOUR MD IS MADE USING THE HIGHEST QUALITY MATERIALS

- High-quality co-polymer plastic has high izod impact value
- Specific no-break characteristics
- Built-in 5 year UV package prevents brittleness
- High ethylene content provides flexure and prevents cracking
- Connector tabs are specially designed with flexure to prevent breakage

FIELDTURF ARMOUR HU

FieldTurf ARMOUR
HEAVY USE PROTECTION

Our premium turf protection system is designed to handle heavy loads and to provide the ultimate in stability and ground protection. It is the most advanced engineered stadium flooring system on the market today and offers superior protection for all types of surfaces and infills.

FieldTurf Armour HU is a large panel system that features an integrated connection system, a durable aluminum cam lock system and unsurpassed liquid spill protection. Each section has a useable surface area of 42" x 42" and is 2 inches thick, thus providing maximum rigidity and surface protection. Sections connect more quickly than other stadium flooring systems - thus minimizing labor and installation time.

FieldTurf Armour HU tile overlap incorporates a liquid capture channel which prevents unwanted liquids from flowing through the seam to the protected surface.

FieldTurf Armour HU offers greater protection against moisture and debris. All underside ribbing features a radius edge that eliminates any sharp edges and provides additional peace of mind when transporting heavier payloads over the floor.

FIELDTURF ARMOUR HU IS DESIGNED TO HANDLE HEAVY WEIGHTS

- Handles heavy weights from vehicles, forklifts, and other moving loads
- Ideal choice for both front-of-house and backstage areas
- Aluminum cam lock system is stronger than any other cam lock systems
- Provides superior life span and long-term durability
- FieldTurf Armour HU's integrated hook and loop system provides additional torsional stability and strength

FieldTurf ARMOUR

FIELDTURF ARMOUR HU IS MANUFACTURED USING THE HIGHEST QUALITY MATERIALS.

- Made from the finest High Density Plastic (HDPE)
- Reinforced with additives for added strength, flex modulus, and izod impact value.
- Built in 5-year UV package prevents degradation and brittleness.
- Our cam locks are manufactured in aluminum (others are made of plastic), providing considerable increased strength.

FIELDTURF ARMOUR HU IS THE MOST COMPREHENSIVELY ENGINEERED SYSTEM, DESIGNED TO HANDLE THE RIGORS OF CONCERT AND STADIUM USE.

- FieldTurf Armour HU is the lowest maintenance heavy duty system available.
- Attractive anti-slip sandblast finish is easy to clean.
- No unsightly patterns to catch dirt.
- No submerged channels to trap food or debris.

EMERGENCY REPAIR KIT INSTRUCTIONS

FieldTurf is very proud to introduce you to its "Emergency Repair Kit"

The FieldTurf Emergency Repair Kit contains the following: Brush, Putty Knife, Rags, Depth Gauge, Caulking Gun, Turf Bond Adhesive, Seaming Tape, Scoring Knife and Angle Irons. Other items you will need are: a leaf rake and/or a stiff-bristled broom or brush and a clean Shop Vac. You might also need: a small quantity of Rubber Infill and/or Silica Sand and possibly a Leaf Blower, if conditions are not perfectly dry, and a shovel.

1. Make sure that the area is reasonably dry. If the area is damp, you can use the reverse function on the Shop Vac, or aim a Leaf Blower approximately 2' from the area and in a back-and-forth motion to dry the area as much as possible or you can peel back the area and let mother nature help if the sun comes out.
2. With the aid of a Shop Vac, making sure that it is clean, as you will re-use the infill, lift the affected area and pull on the turf a bit further in order to insure that the rest of the area is secure. Vacuum the infill from the carpet backing, as well as a bit of infill from each side.
3. Use the angle irons provided to hold back the turf of both sides of the inlay being repaired.
4. Apply the "Turf Bond" adhesive to the area to be re-glued. The Putty Knife provided can be used to help even out the adhesive. A spray mist of water will help the bonding process.
5. Replace the turf onto the glued area by using a rolling method, additional adhesive can be added to this step, if required. Check the area in about 15 minutes to ensure the bonding process has begun. The longer you can wait before re-infilling the better (1 hour minimum).
6. Replace the infill mix that has been removed during the gluing process by layering the infill in small quantities, while making sure no fibers get trapped during the process.
7. If pure rubber is available to you, you can touch up the top layer, if needed, to bring the infill depth back to the specified level.
8. Void from the top of the infill to the top of the fibers should be ¾" – 1" (this can be verified by using the Depth Gauge included in the kit).

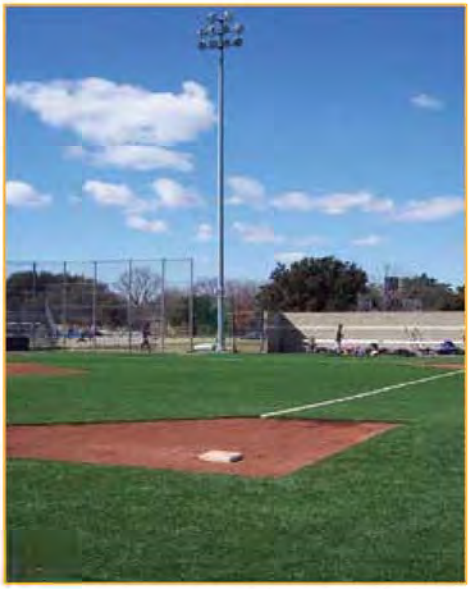
The repaired area should take about 24 hours to dry completely; however, the area can usually be played on in approximately 2 hours.

Please make sure that you have reported the repairs to us, by phone 1-800-724-2969 or by email **customerservice@fieldturf.com** indicating exact locations and photographs, if possible, so that we can record and track your field performance over your field's longevity. Your Customer Service Representative will schedule a field visit from a repair technician as soon as they are available to be in your area.

You can also watch our repair video at **www.fieldturf.com/repair**

If you have any questions, please contact our Customer Service team at 1-877-725-TURF (8873)

ROUTINE MAINTENANCE



REMOVAL OF WEEDS AND MOSS

FieldTurf's superior artificial grass surfaces may look like grass, feel like grass and play like grass; however, if not properly maintained, much like its natural grass cousin, it may still become susceptible to some of grass lovers' natural foes: weeds and moss. It is important to prevent weeds and moss from growing on FieldTurf as it can affect the playability of the surface. Although routine maintenance will prevent this from happening, weeds and/or moss may occur at the interface between the synthetic grass and the perimeter curb.

Should this occur, treat the area with a biodegradable weed killer such as Round Up®, which leaves no residue and more importantly, won't negatively affect the fibers or the coloring of your field. If problems should arise, a 3-prong tool can be used to remove weeds and moss from the affected areas. This should be done carefully so as not to tear the backing and damage the fabric.

Moss could grow on the field surface if the following conditions are present:

- The field surface has not been maintained or groomed over a long period of time.
- If there is an unusual amount of shade on the field and the field has been neglected.
- If the field surface has been left covered with vinyl tarps over a long period of time.
- If there is sufficient moisture and any/all other conditions for growth are met.

SHOE CLEANING

Cleaning mud and dirt from cleated shoes with the use of brushes or cleat cleaners placed near the field will prevent soiling and staining of the field surface.

- Cleaning tools should not be placed directly on the FieldTurf surface.
- Various models are available online or in most sports stores.

MAINTENANCE CARE PRODUCTS

Depth Gauge

FieldTurf Adhesive
29oz Tube

Emergency Repair Kit

EQUIPMENT

FieldTurf has a complete lineup of custom equipment engineered to facilitate all your maintenance requirements. All equipment or vehicles used on FieldTurf must be equipped with turf tires. Equipment must be stored indoors or outdoors with proper covering, such as a tarp.

The list of approved maintenance equipment includes the FieldTurf GroomRight, the FieldTurf GroomRight Wings, the FieldTurf SweepRight, the FieldTurf SweepRight Pro and the FieldTurf Tow Behind Magnet.

Please be aware that "off the shelf" maintenance equipment can damage your field. If you are unsure if your maintenance equipment is allowable or prohibited, please contact the FieldTurf Customer Service Department.

NOTE: Sweeping of the field must be done right after any other maintenance procedure to prevent any foreign material from settling into the infill before usage.

FIELDTURF GROOMRIGHT

The FieldTurf GroomRight is the turf industry's most efficient piece of maintenance equipment. It consists of multiple brushes, rakes and rotating tines. Each of these components can be used individually or all together.

The aerating component features rotating tines located at the center of the unit, to loosen the infill without damage to the fibers.

The brushing and raking components are designed to level the infill while at the same time rejuvenating fibers.

SETTING:

When setting the FieldTurf GroomRight for use, the rotating tines should penetrate the infill by ¾". The rakes should penetrate the infill by ½". The brushes should not penetrate the infill.

- FREQUENCY:
  - Raking: 4 - 6 weeks
  - Brushing: 4 - 6 weeks
  - Aerating: Maximum of 3 times / year, ideally after every sport season and after snow clearing, if applicable (beginning in 2nd year)
- RECOMMENDED VEHICLE: Small garden tractor, gator or larger vehicle, minimum 20HP, equipped with Turf Tires
- SPEED: 3 MPH – always make wide turns

FIELDTURF SWEEPRIGHT

FieldTurf SweepRight is a mechanically driven unit designed to remove larger fallen debris from the FieldTurf surface, and it is the most economical and efficient machine for sweeping. Debris should always be removed as soon as possible. The system also features a mesh plate to facilitate debris pick-up.

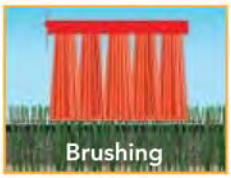
SETTING:

When setting the SweepRight for use, make sure that the brushes never penetrate the infill. Proper removal of debris will only require the brushes to penetrate the top of the fibers.

- Frequency: As needed
- Recommended Vehicle: Small garden tractor, gator or larger vehicle, minimum 20HP, equipped with Turf Tires
- Speed: 3 mph – always make wide turns
- Same setting for the SweepRight and SweepRight Pro.

FIELDTURF SWEEPRIGHT PRO

FieldTurf SweepRight Pro is a gear-driven sweeping system with 6' brush and vibrating debris hopper to sift infill material.



FIELDTURF STATIC BRUSH

FieldTurf Static Brush has a 7' static drag brush and spring tine system. Designed to lift synthetic fibers and level infill material. Brush height and spring tines are independently adjustable.

SETTING:

When setting the Static Brush for use, the brushes should not penetrate the infill. The rakes should penetrate the infill by ½".

- Frequency:
  - Raking: 4 - 6 weeks
  - Brushing: 4 - 6 weeks
- Recommended Vehicle: Small garden tractor, gator or larger vehicle, minimum 20HP, equipped with Turf Tires
- Speed: 3 mph – always make wide turns

ACCESSORIES

FIELDTURF GROOMRIGHT WINGS

Removable and adjustable brush extensions extend the unit to 14 feet in order to level off infill and raise fibers for better field playability.

FIELDTURF TOW BEHIND MAGNET

- 7' tow behind magnet
- Detachable tow hitch
- Works independently or as an attachment for the SweepRight Pro or GroomRight.
- Quick release pull handle for debris removal

THE FOLLOWING FIELDTURF PRODUCTS HAVE BEEN TESTED AND ARE ENVIRONMENTALLY SAFE TO USE ON FIELDTURF FIELDS.

FIELDTURF SCRUB DETERGENT

FieldTurf Scrub is a powerful turf optimized cleaner, conditioner and sanitizer, which can be used for removal of grease and oil, and is chemically formulated to be compatible with other FieldTurf treatment products, such as liquid static conditioners. Its proprietary surfactant system will also assist in keeping surface drainage at optimum levels. FieldScrub can also be used in an emergency situation to help clean up bodily fluids. It may also be used to clean and decontaminate surrounding surfaces, such as benches, equipment, and other items. FieldScrub's Alkali-free formula is user friendly and rinses freely, leaving no harsh residues. Regular cleaning with FieldScrub alleviates the normal buildup of atmospheric residues and revitalizes the turf fibers.

1L

HOW TO USE:

Dilute Fieldturf Scrub as follows in warm or cold water, and apply by brushing or spraying for spot cleaning and Industrial sprayer for entire field application. RINSE well with clean water before using the field.

Suggested application rate of 1:40 will require 4 liters (1 US Gallon) to cover 10,000 square feet.

- Heavy dirt, grease, equipment fluids and oil – pure to 1:4
- Light dirt, grease and oil – 1:8
- General purpose cleaning – 1:40 to 1:80

RECOMMENDED USE:

Yearly for Outdoor fields. Once/Twice per year for Indoor facilities (with adequate drainage).

FIELDTURF STATIC CONDITIONER

FieldTurf Static Control is specifically formulated for the effective control of electrical static buildup on artificial grass systems. The product is safe for application on FieldTurf surfaces without affecting the color and appearance of your FieldTurf field.

1L

HOW TO USE:

Apply diluted as required to the surface to be treated by spray mist and allow it to dry. The suggested application rate is 850 to 1000 square feet per gallon. Reapply as necessary to maintain desired level of protection.

1 liter will make 22 US Gallons and will cover approximately 20,000 square feet.
To minimize aerosol generation application pressure should be kept below 40 psi.

FIELDTURF GUM REMOVER

FieldTurf Gum Remover is an effective all natural biodegradable solvent formulated for removing gum, tar, and adhesives from FieldTurf surfaces. It can also be used as a spot degreaser and deodorizer.

1L

HOW TO USE:

STEP 1:
Using a 1.5-2 inch wide Metal putty knife, isolate the gum with the attached turf fibers by placing the end of the knife at the base of the affected fiber at a 45 degree angle. Push the fibers with the attached gum onto the knife.

STEP 2:
Saturate a small area of a clean white terry rag with **FGR** and apply to the gum resting on the knife surface. Let the solvent penetrate for 1 to 2 minutes to soften the gum, leaving the rag in place. **DO NOT POUR FGR DIRECTLY ON THE GUM, AS THIS MAY DAMAGE THE INFILL AND AFFECT THE BACKING.**

STEP 3:
Holding the knife firmly (taking care not to cut the fibers), gently rub the gum up the putty knife surface toward the handle. This will remove the gum from the FieldTurf surface.

PAINTING

PAINTING ON FIELDTURF'S FIBERS

Before beginning to paint on your field, it is imperative that you contact FieldTurf's Customer Service Department for guidance on specific types of paint to use, recommended suppliers, machines, and proper PSI machine settings.

It should be noted that paint buildup over time will affect paint adhesion, aesthetics and possibly drainage in those areas. It is recommended that paint removal be done approximately after every 5 applications before paint re-application is done. It will be equally important to verify the infill below the surface for paint contamination. This area should be flushed through if necessary. In severe cases, where the infill is totally covered in paint, the infill might have to be removed and replaced.

BELOW IS A LIST OF PAINTING SPECIFICATIONS

TYPE OF MACHINE: AIRLESS SPRAYER

- 800-1000 psi for end zones, logos: tip must be handheld 18" above the surface.
- 700 psi for 4" lines: tip must be held 4" above the surface.

It is important to note that the pressure should be adjusted accordingly so that only the fibers are being painted and NOT the infill. Spray angle should be between 45 and 60 degrees.

SPRAY TIP	
415/417	For painting logos and large end zone areas with handheld wand
315/317	For painting 4" lines with airless sprayer lining equipment

ANGLE TO SPRAY: 45 TO 60 DEGREES

Recommended Application Temperature: above 50°F ambient (temperature should not fall below 50°F within 24 hours after the application).

NUMBER OF COATS: Apply in 2 directions to cover both sides of each blade. Fibers have to be dry before recoating (depending on the climatic conditions). End zones and/or logos may need more than 2 applications. Applying a white primer coat is recommended for logos only.

TIME TO DRY: Preferably overnight; otherwise 6 to 8 hours at 70°F and 50% humidity.

PAINT COVERAGE: For two medium coats each way: approximately 200 square feet or 600-700 linear feet per gallon based on a 4" wide line.

REMOVER COVERAGE: Approximately 500 square feet per gallon or 1500 linear feet based on a 4" wide line.

LIFE EXPECTANCY	OPEN	UNOPENED
Paint	Up to 6 months with lid properly replaced	At least 6 months
Remover	Up to 6 months with lid properly replaced	At least 12 months

DIRECTIVES FOR THE REMOVAL OF LOGOS, END ZONES AND ALL FIELD MARKINGS

1. First and foremost, the surface should be brushed in both directions to allow the fibers to stand up.

2. Apply removing solution, either pure or diluted, depending on what type of paint you are using (only approved removers should be used based on the paint manufacturer's recommendations – contact FieldTurf Customer Service if you are unsure). Brush in both directions, this will ensure full saturation of the grass fibers. Apply the remover a second time and let stand 10 minutes, depending on the climatic conditions. Remover will dry almost on contact in extremely hot conditions. If this is the case, removal should be attempted in short segments.

3. Use of a broom, brush or any grooming or removing equipment approved for the FieldTurf surface might be necessary.

4. Rinse the surface with clean water to remove any extra paint residue. For best results, use hot water.

5. Leave sufficient time for the surface to dry completely before allowing any activity to resume on your field.

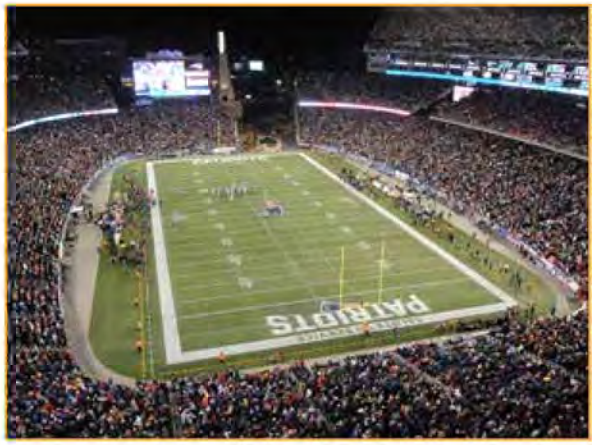
6. The rate of removal may vary due to conditions beyond your control (type of paint, number of coats, exposure, etc). It may be necessary for a second application; if so, repeat the process in the opposite direction.

7. Some infill may be displaced. To avoid this, make sure the brushes used do not penetrate too deep into the infill.

8. Any excess paint will likely be deposited into the infill. Buildup over time will cause the infilled surface to harden. FLUSHING THE SYSTEM WITH WATER (PREFERABLY HOT) IS IMPERATIVE.

9. The use of a paint extracting unit is also very effective to prevent buildup over time. It should be noted that if the above steps are followed your FieldTurf system can be painted multiple times over its life.

10. FieldTurf cannot be responsible for any consequences due to non-compliance of the above directives.



⚠ ANY SUBSEQUENT MEASURES NECESSARY TO RESTORE THE INFILLED SYSTEM BACK TO ITS ORIGINAL STATE IS NOT COVERED UNDER OUR WARRANTY AND WOULD BE AT THE OWNER'S EXPENSE.

SNOW REMOVAL

Generally, the components themselves that make up the FieldTurf system don't freeze, but of course the moisture that seeps into the Infill does. This creates good conditions that allow you to plow it without moving, or removing much Infill. A snow blower may also be used. One of the most important factors in Snow Removal is the temperature; the ideal climactic conditions for plowing are always below freezing (25F/-5C).

Hopefully the temperature will rise above freezing during the day, and the rest of the remaining snow will melt through, especially if the sun comes out.

Once the snow is removed, if there is only a small crust of ice remaining on the top of the surface, many have successfully used the Rotating Tines on the GroomRight to break up the ice, although some extra weight might be required on the unit. A "Rotary Brush" (nylon bristles only) such as found on the Lay-Mor can be used for the final touches, but this is a delicate operation, so as to not move or remove too much infill.

Plowing periodically during the winter months is recommended to avoid a large buildup which makes removal more tedious.

Page 18 shows the Direction of Operation for Field Grooming, which would also apply to snow removal. If restrictions prevent you from accumulation on the sidelines, then a "north/south" direction is acceptable, since in any case, a small layer of snow will be left behind.

If chosen, even recommended de-icers should always be tested off the main field of play, to ensure the safety of the surface and the lack of residue left behind. Calcium Chloride is preferred over Sodium Chloride, Magnesium Chloride is also acceptable. If you have "Attic Stock", a thin layer of crumb rubber also works.

From experience, there are some things we do know; that a "warm brine" of Calcium Chloride solution is an effective melting solution, but that it does leave a residue, which affects ball handling in football and ball reaction, such as in soccer. Footing can also be slippery, again testing all of the "factors" off the field of play before full field application is recommended.

Aside from any issues with potential corrosion of any exposed metal, Magnesium Chloride should not be harmful to the turf. Also, any residues will pick up moisture, which will reduce the abrasive effect; (i.e. regular salt dries to hard abrasive crystals that can scuff the fibers … magnesium chloride will pick up moisture from the air and will produce less abrasion).

Keep in mind that we do not know the long-term effect to the backing/coating/tuft bind etc., but we do know that no harm comes to the fibers and infill. Our testing is ongoing.

One final thought is that Mother Nature should provide plenty of rain in the spring to flush these chemicals through the system. It might be a good idea though, when the temperatures remain above freezing for 4-5 days, to water the surface to insure that no residue is left behind.

Typically, the load bearing capacity of the FieldTurf system and sub-base (this should be verified with the Base Contractor) can withstand pressure up to 70 PSI / 1080 PSF (see page 39). Factors to always consider are that if the weather temperature rises above freezing, and both the FieldTurf and base begin to thaw and are wet, then the PSI is affected by these changes in atmospheric conditions, which is no different than with a natural grass surface.

It is always recommended to test the equipment first on the FieldTurf surface but off the main field of play itself. For example, test the equipment at the bench areas or D zones where the panels run parallel to the field and usually leave no markings. You will also be going in the direction of the seams, so this should give you a comfort level for adjustments etc.

Your Customer Service Coordinator can be contacted for assistance with snow removal via our FieldCare program (see page 40), if you choose not to do it yourself. They can also assist you with recommended snow removal attachments, if needed.

VEHICLE CIRCULATION

YOUR FIELDTURF FIELD IS DESIGNED TO ACCOMMODATE VEHICLE LOADS WITHOUT CAUSING DAMAGE TO THE FIELD SURFACE, PROVIDED THE FOLLOWING CONDITIONS AND RECOMMENDATIONS ARE FOLLOWED:

- Do not leave vehicles idling or unattended. Heat generated by the exhaust could singe fibers.
- Ensure that the machines being used on the field are not leaking.
- Typically, bases supporting your FieldTurf field are designed for a maximum load-bearing capacity of 70 pounds per square inch (70 PSI / 1080 PSF). Vehicles circulating on your field should conform to this load-bearing capacity limit, unless your base has been specially designed to support heavier loads. Please refer to your internal design criteria to verify the maximum acceptable load your field can accommodate.
- Only vehicles equipped with pneumatic rubber turf tires should be allowed to circulate directly on the field surface.
- Turning of the vehicle on the surface should be done in a wide radius.
- Turning of the vehicle should only be done when the vehicle is in forward motion.
- All vehicles should circulate at slow speeds at all times.
- Abrupt and sudden braking must be avoided.
- Sudden acceleration and spinning of wheels must be avoided.
- Vehicle wheels should be clean at all times to prevent mud or dirt from being deposited on the field surface.
- All vehicles in direct contact with FieldTurf surfaces should be inspected for possible leakage of oil or hydraulic fluids prior to accessing the field.
- In order to avoid rutting of the infill and of the underlying base, circulation of vehicles on outdoor saturated fields must be avoided.
- To protect against heavy and larger sized vehicle circulation, a layer of ¾" thick plywood must be placed over a vinyl tarp covering the field to a minimum distance of 40' to 60' (12 to 20m) and should be installed at all entrance and exit points to the field.
- Please note: The FieldTurf surface should be groomed and swept following heavy traffic.

HELP

In addition to these guidelines, there are three ways to get answers to any FieldTurf questions you may have:

1 – Contact our Customer Service Department at 1-877-725-TURF (8873)
2 – Consult our Maintenance Video
3 – Visit www.fieldturf.com/maintenance
4 – Please contact customer service for any hard copies needed.

FieldTurf® FIELDCARE MAINTENANCE PROGRAM

FieldTurf's FieldCare Maintenance Program will help you maintain performance, enhance the longevity of your field and increase the return on your investment.

At each visit, certified technicians execute these 5 procedures:

1. Take multiple infill depth measurements to verify surface planarity.
2. Make minor warranted seam and inlay repairs, not to exceed eight (8) repairs.
3. Add light infill to high-traffic areas.
4. Power clean field perimeter.
5. Provide a written Pre and Post-Session field report.

Advanced Care

Advanced Care is ideal for aged surfaces and/or fields with heavy use. It provides deep grooming and fiber rejuvenation in these 5 steps:

- Deep field decompaction.
- Magnet sweep for metal debris.
- Rotary brushing to raise turf fibers and to deposit any contaminated infill into vibrating screen for debris collection.
- Cleaned infill is then redistributed back into the field using a weighted power brush and vacuum.
- Vacuuming to remove fine dust and debris from field surface.

Standard Care

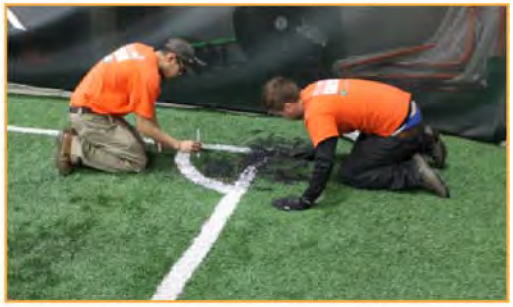
Standard Care provides the 4 basic services for debris removal, field decompaction and infill redistribution:

- Sweep field for large debris.
- Decompact field at appropriate depth for age of fiber and current field conditions.
- Brush in multi-directions with static brush to redistribute infill.
- Re-sweep the field for fine debris.

Custom Care

Custom Care is designed by the FieldCare Service Team to fit your specific maintenance needs. This includes 1 to 6 visits per year with a combination of Standard Care and Advanced Care maintenance, along with other custom services, which include:

- Field line striping
- GMAX testing
- Anti-microbial spray
- Anti-static spray
- Infill top dressing and replenishment
- Removal of clay migration
- Snow plowing



Maintenance Summary Report

FieldTurf FIELDCARE

NAME OF FIELD/SITE: _____

Time of Arrival: _____ Time of Departure: _____ Service Visit Date: _____

Contact Name: _____ Classification of Service: _____

Phone #: _____ Site Address: _____

Billing Address: _____ Field Square Footage: _____

GMAX: Y _____ N _____ Primary Sports: _____

Service Provider/Technicians: _____ Field Fiber Type: _____

Fiber Height: _____ Install Date: _____

Report Submitted by: _____ Date of Last FC Service Session: _____
(If no date: Please write "NEW FC Customer")

PRE-FIELD INSPECTION NOTES BY TECHNICIAN (FROM WALKTHROUGH):

MAINTENANCE SERVICES PROVIDED: ☐ STANDARD CARE ☐ ADVANCED CARE OTHER _____

- ☐ Aggressive Brushing / Leveling
- ☐ Static Brush
- ☐ Power Static Brushing
- ☐ Power Brush & Vac
- ☐ 3-Step Deep Power Grooming (Only advanced care)
- ☐ General Field Sweeping
- ☐ Field Metal Magnet Sweep
- ☐ Static Drag Mat
- ☐ Gmax Testing
- ☐ Power Broom (Perimeter edges & specialty areas)
- ☐ Anti-Microbial Spray
- ☐ Anti-Static Spray
- ☐ Refill Infill in High-Traffic Areas ((Rubber/Sand Infill Mix > 250lbs = Additional Charge for Material/Labor).
- ☐ Total Vegetation Control (Perimeter edge only)
- ☐ Standard Infill Decompaction (Not to exceed 1 inch depth)
- ☐ Tier 2 Decompaction (Deep-Tine Decompaction)
- ☐ Infill Cleaning / Sifting / Fiber Rejuvenation

Post Maintenance Field Inspection: Inlays/Seams/Field Markings

Number of minor repairs: Pre-Service Inspection. : _____

Number of minor repairs: Post-Service Inspection : _____

Qty: # of total repairs: _____ Estimated # of linear feet repaired: _____

Picture Submission: ☐

	Warranty	Billable
Minor inlay and/or seam repairs conducted:	☐	☐
Turf Replacement:	☐	☐

FIELD INSPECTION:

- ☐ 1. Logo Analysis
- ☐ 2. Seam Separation Analysis
- ☐ 3. Perimeter Anchoring
- ☐ 4. Infill - Consistency in Depth
- ☐ 5. Infill - Migration Analysis
- ☐ 6. Inlaid Line Analysis

POST MAINTENANCE TECHNICIAN NOTES:

INFILL LEVELS CHECKED PRE MAINTENANCE:

Description	1	2	3	4	5	6	7	8	9	10	AVERAGE
Primary:											0
Additional:											

Time of Day: _____

INFILL LEVELS CHECKED POST MAINTENANCE:

Description	1	2	3	4	5	6	7	8	9	10	AVERAGE
Primary:											0
Additional:											

Time of Day: _____

Primary: The selection of test point locations will be determined by the primary sport.
Additional: Locations determined by the secondary sport.

Reviewed by FieldTurf Personnel: _____ Date: _____

FREQUENTLY ASKED QUESTIONS

WHAT IS CUSTOMER CONNECT?

This exclusive online aid contains news, useful tips and information which will hopefully assist you with overall Maintenance and care your fields for years to come.

- fieldturf.com/en/customer-connect/

WHAT ARE THE BEST TYPES OF SHOES TO WEAR ON FIELDTURF?

The superior playing characteristics of your FieldTurf surface are directly associated with correct footwear and include: torque releas surface friction and traction. The best types of shoes are molded cleats or screw-ins (maximum recommended is ½"). The footwear designated for natural grass is easily transferable to use on FieldTurf.

• While use of long steel jagged cleats on FieldTurf will not void the warranty, they are not recommended. Limited use is allowable.
• It is important to note that flat-soled shoes and steel cleats do not result in ultimate athlete performance.
• Metal and aluminum rounded molded cleats are acceptable.
• A complete traction study of footwear on FieldTurf is available upon request.

WE HAVE HAD SOME VANDALISM ON OUR FIELD - WHAT DO WE DO?

In all cases, photographs should be taken immediately of any vandalism that has taken place. These will be needed for insurance purposes and should also be sent to the FieldTurf Customer Service Department in order to evaluate the scope of the required repa

Burn or singe marks should be evaluated immediately. In some cases, a qualified crew might be able to repair these without replaci sections of the turf. In the case of paint vandalism, it will be imperative to remove the paint as soon as possible, as the longer it stay the surface, especially in the hot sun, the more difficult it becomes to remove.

Two commercially available removers are safe for use with the FieldTurf system:

1) Graffiti remover by Goof-Off
2) Zep Heavy Duty Citrus Degreaser

Both of these are most effective when used in conjunction with warm/hot water.

A PRESSURE WASHER IS IDEAL WHEN AVAILABLE; A FEW GUIDELINES TO FOLLOW:

1) Apply approved remover first.
2) Work it in with a brush, first one way against the fibers, then the other. Hot/warm water can be used on the brush to further activate the remover.
3) The pressure washer nozzle should be held no closer than 2' from the grass and at no less than a 45-degree angle.
4) Again, going in one direction of the fibers, then back the other way.
5) All steps should be repeated if necessary.

It should be noted that in most cases it is not known what kind of paint we are dealing with. The above mentioned removers might give the results needed. Please contact the FieldTurf Customer Service Department, as several paint suppliers also manufacture var removers that are safe on our surface. They are also very helpful and knowledgeable with removal methods and will be a good pho or on-site resource, if needed.

WHAT EQUIPMENT CAN BE USED TO PAINT AND REMOVE PAINT?

A list of recommended painting and paint removal equipment, as well as painting and removal tips and guidelines, can be obtained contacting your FieldTurf Customer Service Department.

WE HAVE A SPORTING EVENT ON OUR FIELD WITH NO TIME TO CONFIGURE THE FIELD PROPERLY. CAN WE USE LIME, CHALK, OR TAPE FOR TEMPORARY LINES?

The use of pulverized lime stone such as used on a natural grass field for baseball is not ideal as it tends not to stick to fibers, but simply settle into the infill. Their prolonged use tends to "gum" up the infill and could eventually affect drainage in those areas.

One-time use, if time is a constraint and there are no other options, might be permitted. Please contact FieldTurf Customer Service before proceeding.

Testing the chalk off the field of play is ideal, as it helps adjust your flow rates and allows you to apply as little as possible while still allowing the players and officials to see the lines. Unfortunately, all the tests and attempts that have been done with "tapes" to line fields have not been successful. They are either too tacky, risk pulling out fibers and also risk leaving a residue that has to be taken off with a gum remover or are too flimsy and risk being a tripping hazard.

A chalk paint is ideal for short-term use. Please contact the FieldTurf Customer Service Department for a list of recommended suppliers.

WE USED TO HAVE FIREWORKS ON THE 4TH OF JULY - CAN WE STILL HAVE THEM WITH OUR NEW FIELD?

Whenever possible, direct contact of fireworks should be avoided near our synthetic grass system. However, though some polyethylene fibers could be singed when in contact with live ambers or fireworks, water will immediately alleviate any damage. A fire extinguisher can be used, but water is preferable since it leaves no residue to penetrate the infill; however, either one is fine.
Watering the field will certainly help reduce potential damage; however, whenever possible, the field should be covered by a "fire resistant" covering. Contact the Customer Service Department for a list of recommended suppliers.

CAN A LEAF BLOWER BE USED ON THE FIELD?

Yes, this is an effective method of getting rid of leaves, pine needles, dried sunflower seeds, etc. The blower should be held no closer than 2' from the surface and at a 45 degree angle to avoid displacing any of the infill from the field.

HOW DOES CLIMATE AFFECT THE FIELDTURF SURFACE I.E. SNOW, RAIN, AND SALT WATER?

Your FieldTurf surface is designed to withstand a wide range of climatic and atmospheric conditions, such as ultraviolet rays (UV), snow, ice, salt water and sea climates without damage. However, it is essential that the field is washed periodically to remove any salt water deposits on the field surface.

WE SEEM TO HAVE A LOT OF GEESE LANDING ON OUR FIELD WHILE THEY MIGRATE BACK AND FORTH IN THE FALL AND SPRING. WHAT CAN WE DO TO KEEP THEM AWAY?

Several remedies are safe for humans and unpleasant for our feathered friends. Contact our FieldTurf Customer Service Department for further details.

CAN TRACK AND FIELD EVENTS SUCH AS DISCUS, JAVELIN, SHOTPUT BE HELD ON MY FIELD?

In general, the unprotected Turf system and base will tolerate some degree of Track activities, but protective covering in the landing area is recommended. Several suppliers offer "Discus" that are designed specifically for synthetic surfaces. The Javelin must be equipped with a Rubber tip to avoid damage to your FieldTurf system. The Turf system will obviously withstand use of the Hammer and Shot-Put on a Concrete base more so than Crushed stone, as noted previously, protective covering is recommended. Since Infill will be displaced, grooming frequencies might have to be added.

The FieldTurf Warranty covers the components and Installation of the FieldTurf product. The holding of Track events, as noted, will not impact the warranty. However, though all efforts are made to provide appropriate directives for the staging of events other than the sporting activities set out in the warranty; the responsibility remains on the owner for any mishaps or damages that might occur.

CAN BLEACHING AGENTS BE USED ON FIELDTURF FIELDS?

Oxidizing agents such as bleaching agents should NOT be used on FieldTurf fields.

WHAT DO I DO IF WE SPILL GATORADE ON THE FIELD?

We recommend that the areas with Gatorade or other drinks/fluids be cleaned as soon as possible with water in order to avoid bugs being attracted to the surface or jerseys becoming stained as a result of the spilled liquid.

CAN WE USE TRAINING EQUIPMENT, SUCH AS BLOCKING SLEDS, ON THE FIELD?

Training devices should be used with caution. Though their use does not constitute a breach of your warranty, FieldTurf cannot be responsible for any damage caused by the use of any such training equipment.

Since many manufacturers have developed or modified their Equipment specifically for synthetic systems, it is suggested that they be consulted for their recommendations and guidelines before use.

Our research has yielded some recommended guidelines which include:

- To make use of sleds and various training devices off the main field of play, such as D zones, end zones (if no Inlaid logos appear) and areas away from the main boundaries of play where the panels run parallel to the field and no inlaid markings appear.
- If used on the field of play, it is suggested that it be across the field in the directions that the panels were installed, as opposed to end to end against them.
- It is always recommended to remove the Equipment from the Field after each use.

The same recommendations would apply to the use of "Tire Flipping" as a training aid. Moreover a few specific recommendations would be:

- To make sure that the tires are clean, any dirt will likely get transferred to the turf and Infill.

It is not recommended to use the tires as a "Resistance" tool by dragging them across the turf. Preliminary research has shown that the friction could possibly damage or even pull out some of the polyethylene fibers.
As in other higher use areas on the field, grooming frequencies might have to be augmented to Groom both the Infill and the fibers.

I SEEM TO HAVE BASE DEPRESSIONS OR DIPS ON MY FIELD - WHAT DO I DO?

Base depressions or "dips" that form on a field are not unlike potholes on our roads. The sub-base construction is similar in some aspects to road work. It usually consists of 6" to 10" of crushed stone over the existing soil that was graded and compacted. Over time and especially if the soil is of poor quality or unstable, areas may depress.
The unevenness or depression that has formed is a result of the shifting of the base soil below it. Obviously this then causes the turf system to sink. It should be noted that this is not part of the turf system warranty; however, it should be addressed. Contact your base contractor with any sub-base related issues.

WHY DOES MY FIELD APPEAR TO BE SLOW IN DRAINING?

Slow/insufficient drainage can be caused by a wide variety of factors which include, but are not limited to:

- Poor drain base design
- Utilization of incorrect drain base materials
- Improper drain base construction techniques
- Inadequate infrastructure
- Other outside factors

If these factors have been ruled out or do not seem to be a likely contributing factor, it is possible that the slow drainage is a result of surface tension – a natural phenomenon common in the fabric, carpet and outdoor flooring industry. Surface tension is especially common on recently completed fields. In most cases, the problem resolves itself naturally over the 6 week break-in period as the field is played on. In rare cases, the field could be treated with a surfactant and/or degreasing agent to enhance water penetration and eliminate surface tension.

IT SHOULD ALSO BE NOTED THAT SOME "PUDDLING" OR "PONDING" IS PERFECTLY NORMAL IN CERTAIN CIRCUMSTANCES. IN ALMOST ALL CASES, HOWEVER, THE FIELD SHOULD BE FREE AND CLEAR OF ANY STANDING WATER ONCE THE PRECIPITATION HAS STOPPED FOR APPROXIMATELY 30 MINUTES.

FIELDTURF FIELD SETTLING

FIELDTURF HAS PROVEN TO BE THE HIGHEST PERFORMING AND THE MOST DURABLE BRAND OF ARTIFICIAL TURF IN THE WORLD. THE FIELDTURF SYSTEM IS AN ENGINEERED PRODUCT CONSISTING OF SPECIALIZED COMPONENTS ALL GEARED TOWARDS MAXIMIZING ATHLETE SAFETY AND FIELD PERFORMANCE.

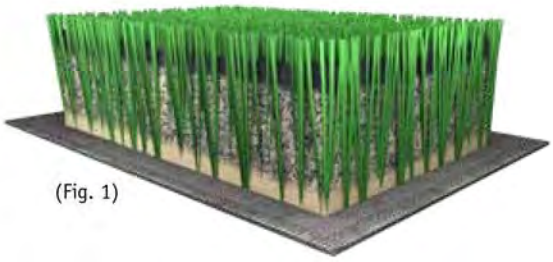
In addition to industry-leading manufacturing and service standards, what sets FieldTurf apart is the patented 9 lb / square foot sand and rubber infill system, along with the world's most durable fiber that is exclusive to FieldTurf.

It is important for field owners to understand what constitutes normal behavior of these vital components over time. Below are the three major stages that a field will go through in order to achieve its optimal level of performance. These three stages are not only normal but a necessary progression in the life of an artificial turf field.

INITIAL

The field has just been installed. Fibers are upright and infill is slightly higher and looser.

Approximate duration for this stage depending on use and proper maintenance: years 0-1 (Fig. 1)


(Fig. 1)

SETTLED

Fibers are not as upright and are beginning to layover in order to encapsulate the infill and provide for a more grass-like appearance. The infill height has been lowered and has settled to its ideal level of 3/4" below the tip of the fiber held in an upright position.

Approximate duration for this stage depending on use and proper maintenance: years 2-5 (Fig. 2)


(Fig. 2)

MATURED

The fibers have laid over and the infill height remains at its ideal level. During these years, the consistency and durability of the FieldTurf system is brought to the forefront as the product continues to exude ideal levels of safety and performance after heavy use.

Approximate duration for this stage depending on use and proper maintenance: years 6-8+ (Fig. 3)


(Fig. 3)

FIELDTURF
MAINTENANCE GUIDELINES

UPDATED DECEMBER 2017

Information

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FieldTurf®
A Tarkett Sports Company

THE ULTIMATE
SURFACE EXPERIENCE

FieldTurf®
A Tarkett Sports Company

FieldSWEEP

THE LATEST INNOVATION IN FIELD MAINTENANCE EQUIPMENT

Looking for the best way to remove debris from your turf field? A simple tool to help with the most frequently required maintenance function? A device that is engineered for artificial turf and hassle free? Introducing FieldTurf FieldSweep.

The NEW system allows for fast and easy debris collection. Specially designed for use on FieldTurf surfaces, the system uses nothing more than friction and forward motion. FieldSweep is towed along the surface and the carpet agitates the debris on, or just under the surface. That debris is then collected by the polyurethane reservoirs trailing each row of carpet. The exclusive technology traps the debris in the system for extraction at the end of the cycle.

Developed at the FieldTurf Innovation and Performance Center, the FieldSweep showcases leading design, fine-tuned for performance, usability and efficiency.

- **ENGINEERED FOR ARTIFICIAL TURF**
- **FAST DEBRIS COLLECTION**
- **QUICK & EASY HOOK-UP**
- **LIGHT-WEIGHT**
  CAN BE TOWED BY SMALL EQUIPMENT
- **HIGHLY DURABLE**
  NO MOTOR, NO MOVING PARTS

FIELDSWEEP	FIELDSWEEP TANDEM
WIDTH: 6.8’	WIDTH: 13.6’

“We love our FieldSweep unit. It’s easy and it works! We can attach the unit, sweep, clean the debris and store the unit with ease and rapidity. We really like the fact that any member of our team can use the tool and get the job done right.”

NICK PAPPAS, CSFM
HEAD GROUNDSKEEPER
MERCEDES-BENZ STADIUM

1.800.724.2969 | info@fieldturf.com | fieldturf.com

FieldTurf® A Tarkett Sports Company | FieldSWEEP

HOW IT WORKS

ATTACH FIELDSWEEP TO LIGHTWEIGHT EQUIPMENT

FieldSweep doesn't require any heavy or specialized equipment for use. As FieldSweep is lightweight, a small tractor, gator or cart can pull the unit. Hard to maneuver corners can even be done by hand if needed. Simply attach the unit and go.

PASS FIELDSWEEP ON SURFACE TO REMOVE DEBRIS

Using friction, the FieldSweep unit removes debris as it's passed across the surface. Engineered specifically for artificial turf, the system allows for fast and easy debris collection.

EMPTY DEBRIS FROM FIELDSWEEP

Once sweeping completed, the FieldSweep unit is emptied on a tarp or exterior of the field to collect the debris. The system can be easily cleaned and stored for future use.

FieldTurf GroomRight

GROOMRIGHT

Congratulations on selecting the highest performing and most durable synthetic turf product in the industry.

FieldTurf fields are naturally built to last - but proper maintenance is an absolute necessity to ensure the long-lasting high performance that has made FieldTurf the top choice of over 3000 organizations in North America.

The FieldTurf GroomRight is the industry's most efficient piece of maintenance equipment for synthetic turf sports fields.

Benefits:

- Durable
- Reliable
- User Friendly
- Designed for FieldTurf

Specialized Product Features:

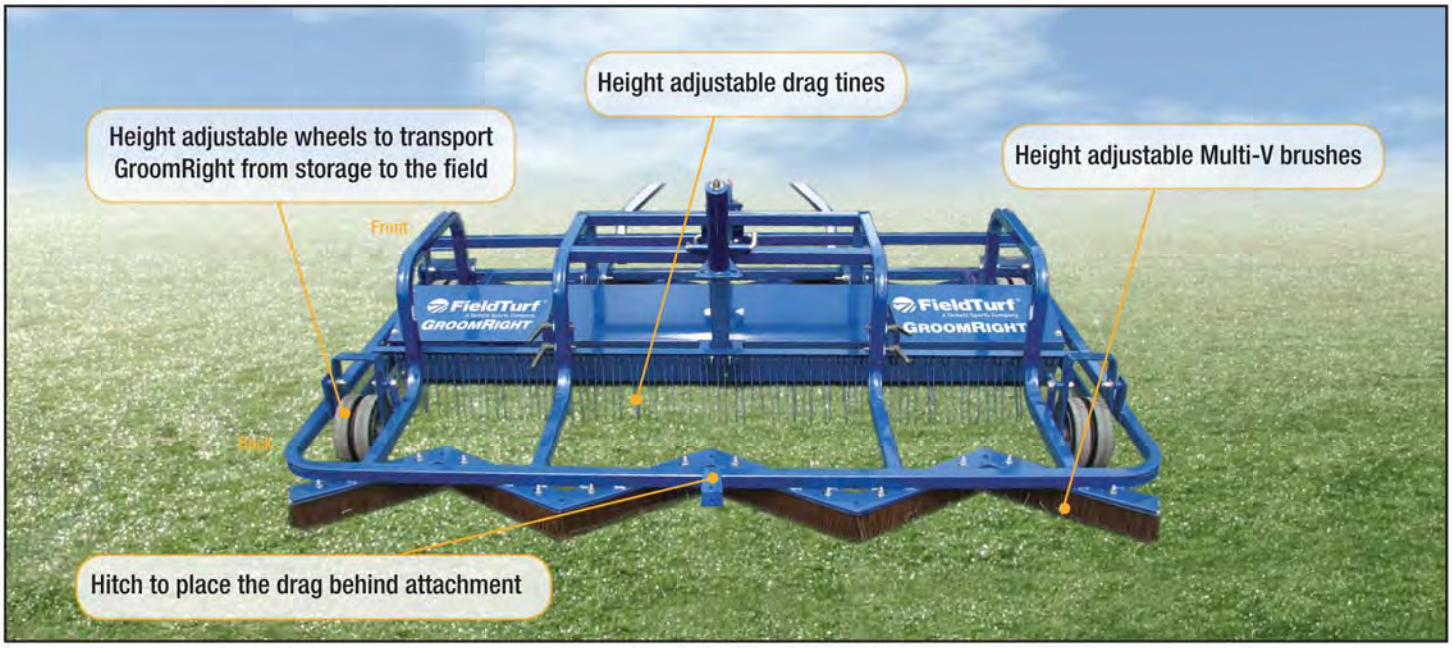
- Front & rear Multi-V brushes for smooth passage through the turf
- Central Rotating Tines unique to FieldTurf to loosen infill
- Revamped drag Tines to groom fiber and infill
- Superior brush extensions for quick & effective grooming
- Drag behind attachment for flexibility and additions

FieldTurf®
A Tarkett Sports Company

THE ULTIMATE
SURFACE EXPERIENCE

FieldTurf GroomRight

The Anatomy of a FieldTurf GroomRight



Height adjustable rotating tines between brushes to perforate and loosen infill

Optional removable and adjustable brush extensions

Information

(800) 724-2969
info@fieldturf.com
www.fieldturf.com

FieldTurf®
A Tarkett Sports Company

THE ULTIMATE
SURFACE EXPERIENCE

FieldTurf®
A Tarkett Sports Company

COLOR CHART

MONOFILAMENT TURF SYSTEMS

CORE - REVOLUTION 360 - XM7

BLK

PRODUCT: BLK
COLOR: BLACK
PANTONE: BLACK

RED

PRODUCT: RED
COLOR: RED
PANTONE: 185C

PALRED

PRODUCT: PALRED
COLOR: PALACE RED
PANTONE: 201C

ORA

PRODUCT: ORA
COLOR: ORANGE
PANTONE: 166C

TAN

PRODUCT: TAN
COLOR: TAN
PANTONE: 728C

RUS

PRODUCT: RUS
COLOR: RUST
PANTONE: 174C

BRO

PRODUCT: BRO
COLOR: BROWN
PANTONE: 4625C

MUS

PRODUCT: MUS
COLOR: MUSTARD
PANTONE: 124C

This handout is used for illustrative purposes only and is not an accurate representation of the actual product. As such, its size, colors and materials may vary.

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A Tarkett Sports Company

COLOR CHART

MONOFILAMENT TURF SYSTEMS

CORE - REVOLUTION 360 - XM7

MET GOLD

PRODUCT: MET
COLOR: METALLIC GOLD
PANTONE: 873C

VEGAS GOLD

PRODUCT: VEGAS GOLD
COLOR: VEGAS GOLD
PANTONE: 467C

YEL

PRODUCT: YEL
COLOR: CANARY YELLOW
PANTONE: 136C

LGR

PRODUCT: LGR
COLOR: SUMMER GRN
PANTONE: SUMMER GRN

O/G

PRODUCT: O/G
COLOR: OLIVE/FIELD GRN
PANTONE: OLIVE GRN/ FIELD GRN

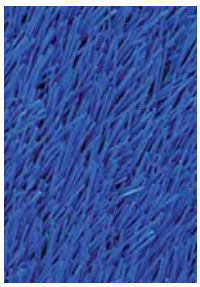
GRE

PRODUCT: GRE
COLOR: FIELD GREEN
PANTONE: FIELD GREEN

LAG

PRODUCT: LAG
COLOR: LAGOON BLUE
PANTONE: 292C

REF



PRODUCT: REF
COLOR: RELEX BLUE
PANTONE: REFXC

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FieldTurf®
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COLOR CHART

MONOFILAMENT TURF SYSTEMS

CORE - REVOLUTION 360 - XM7

NAV

PRODUCT: NAV
COLOR: NAVY BLUE
PANTONE: 282C

PUR

PRODUCT: PUR
COLOR: PURPLE
PANTONE: 269C

MAR

PRODUCT: MAR
COLOR: MAROON
PANTONE: 188C

SIL

PRODUCT: SIL
COLOR: SILVER
PANTONE: 423C

WHT

PRODUCT: WHT
COLOR: WHITE
PANTONE: WHITE

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