SANBORN HEAD
Building Trust. Engineering Success.

3770 Embassy Parkway, Suite 110
Fairlawn, OH 44333

Mr. Kenneth Bardo, Project Manager
United States Environmental Protection Agency
Region 5
77 W. Jackson Boulevard, LU-9J
Chicago, Illinois 60604-3590

August 16, 2012
File No. 2927.03

Re: Supplemental PCB Assessment and Soil Management and Disposal Plan
Proposed Connector Road
TSB Metals & Recycling, LLC.
611 W. Wilbeth Road
Akron, Ohio

Dear Mr. Bardo:

On behalf of The Timken Company (Timken), Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this letter report to summarize the findings of supplemental soil sampling at the above-referenced site. For your review and approval, Sanborn Head has also prepared the attached Soil Management and Disposal Plan (Exhibit A) associated with the pending construction of the City of Akron's proposed connector road at the site. The scope of the activities summarized herein was based on our Work Plan dated July 11, 2012, which was submitted electronically to you on that date. Please note that this letter report is subject to the limitations included in Appendix A.

The activities prescribed in the Soil Management and Disposal Plan will supplement the prior polychlorinated biphenyl (PCB) cleanup efforts completed by Conestoga-Rovers & Associates, Inc. (CRA) in 2009. Under the conditions of the prior cleanup, the United States Environmental Protection Agency (USEPA) allowed residual PCB contamination to remain within the fenced area at the site. The proposed location of the City of Akron's connector road, which is shown on Figure 1 in Exhibit A, extends through the portion of the fenced area within which residual PCB contamination was previously identified. Timken intends to complete supplemental PCB cleanup activities before the City of Akron begins construction activities for the connector road, which will require portions of the existing fence to be permanently relocated.

On July 17 and 18, 2012, nineteen additional soil borings (B-601 through B-619) were advanced to further characterize soil conditions in the eastern, unpaved portion of the fenced area. Sanborn Head advanced three soil borings located along the southern hillside (i.e., B-605, B-608, and B-17) using a hand auger. The remaining soil borings were advanced with a track-mounted direct drilling rig. The depths of the soil borings ranged from 3 feet to 12 feet below ground surface (bgs), and soil samples were collected from 1 to 2 foot intervals from each boring location. An Exploration Location Plan is attached as Figure 2 in Exhibit A. Soil boring logs are included in Appendix B.

Sanborn Head selected 25 soil samples for laboratory analyses; 21 soil samples were analyzed for PCBs by USEPA Method 8082 and four samples were analyzed for total petroleum hydrocarbons (TPH) by USEPA Method 8015 (gasoline and diesel range organics).[1] The analytical results for the soil samples located within the unpaved fenced area are summarized in Table 1 and are shown on Figure 3 in Exhibit A.[2] The analytical laboratory reports are included in Appendix C.

Figure 4 in Exhibit A depicts the changes that will be made to the current fence location as part of the pending road construction activities, as well as the areas of residual PCB-contaminated soils that will be excavated. Based on historical and recent analytical results, the supplemental PCB cleanup activities will target the following areas:

- Previously known PCB contamination in the western portion of the unpaved fenced area, where the recent analytical results indicate the vertical extent of residual PCB contamination extends to a depth of 2 feet bgs.
- Previously known PCB contamination along the southern hillside, where recent analytical results indicate residual PCB contamination extends to at least 2 feet bgs and to the north toward the former Auto Prep Area.
- Recently identified PCB contamination in the eastern portion of the unpaved fenced area, where the recent analytical results at soil boring B-615 identified residual PCB contamination to a depth of 5 feet bgs.
- Recently identified PCB contamination near the southeastern corner of the unpaved fenced area, where recent analytical results at soil boring B-617 identified residual PCB contamination to at least 3 feet bgs.

The extent of the excavation area in the western portion of the unpaved fenced area will be based on the existing data set of analytical results. In the other three areas (i.e., along the southern hillside and at soil borings B-615 and B-617), post-excavation soil sampling will be performed to evaluate whether the residual PCB contamination has been adequately addressed. The verification sampling will be performed in accordance with the procedures used during the original PCB cleanup in 2009. Details of the verification sampling procedures are provided in Exhibit A.

During the supplemental cleanup activities, which are tentatively scheduled to begin during the week of August 27, 2012, we estimate that approximately 900 cubic yards of PCB contaminated soils will be excavated and loaded directly into trucks for disposal at

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[1] Although TPH is not regulated under the Toxic Substances Control Act, the field and analytical programs assessed the potential for TPH contamination near the concrete pad for the former Auto Prep Area based on the findings of Timken's earlier voluntary due diligence activities. The concentrations of TPH in the supplemental soil samples ranged from 213 to 2,870 parts per million (ppm), which are less than 5,000 ppm, the applicable cleanup standard for Ohio's Voluntary Action Program.

[2] During CRA's prior cleanup activities, they excavated PCB contaminated soils from several areas within the eastern, unpaved fenced area. The historical analytical results presented in the attached table and figures included in Exhibit A represent soil conditions after CRA completed the prior PCB cleanup.

American Landfill in Waynesburg, Ohio. The fence will be permanently relocated once the analytical results for the post-excavation verification samples indicate that the residual PCB contamination has been adequately addressed. During the subsequent construction activities for the connector road, soils excavated from areas outside of the relocated fence will be reused as fill material in the eastern-most portion of the site.

Exhibit B provides a figure for the revised deed restriction that will be recorded at the Summit County Auditor's Office within 14 days of the completion of the supplemental cleanup activities. The figure in Exhibit B identifies the area that will be secured by a relocated fence, as well as the location of the proposed right-of-way for the connector road. Timken will transfer title to the property within the proposed right-of-way to the City of Akron when the road construction activities are completed. A draft copy of the revised deed restriction will be provided for your review and approval prior to beginning the excavation activities for the supplemental PCB cleanup.

Please contact me if you have any questions or comments regarding the scope of the supplemental PCB cleanup or if you anticipate that the tentative schedule needs to be revised. Thank you for your assistance.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.

Paul P. Gallagher, P.G., C.P.
Project Director

GRB/PPG:amb

Attachments: Exhibit A – Soil Management and Disposal Plan
Exhibit B – Figure for Revised Deed Restriction
Table 1 – Summary of Analytical Results – Soil Samples
Appendix A – Limitations
Appendix B – Soil Boring Logs
Appendix C – Analytical Laboratory Reports

cc: Alan Oberster, Timken
Chuck Knott, Timken

S:\OHIDATA\2927.03\Source Files\USEPA Soil Mgt Plan\20120816 USEPA Work Plan ltr.docx

EXHIBIT A

SOIL MANAGEMENT AND DISPOSAL PLAN

SOIL MANAGEMENT AND DISPOSAL PLAN
SUPPLEMENTAL PCB CLEANUP FOR CONNECTOR ROAD
TSB METALS & RECYCLING, LLC.
AKRON, OHIO

Introduction

Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this Soil Management and Disposal Plan pursuant to our Work Plan for Supplemental PCB Cleanup Activities submitted to Mr. Kenneth Bardo of the United States Environmental Protection Agency (USEPA) on July 11, 2012. A Site Plan is provided as Figure 1.

The activities prescribed herein will supplement the prior PCB cleanup efforts completed by Conestoga-Rovers & Associates, Inc. (CRA) in 2009.[1] The objective of the Soil Management and Disposal Plan is to summarize the supplemental PCB cleanup activities that will be conducted to support the City of Akron's pending construction activities for a public connector road, which will extend through the original fenced area within which residual PCB contamination is located. Under the conditions of the prior cleanup, the USEPA allowed residual PCB contamination to remain within the unpaved fenced area at the site. The concentrations of PCBs in soil samples obtained from within the unpaved fenced area ranged up to 9.26 parts per million. The analytical results for the soil samples are shown Figure 2.

Figure 3 depicts the changes that will be made to the current fence location, as well as the areas where residual PCB contaminated soils will be excavated prior to construction activities for the proposed connector road. The supplemental PCB cleanup activities will target the following areas:

- Area A – In the western portion of the unpaved fenced area, where the recent analytical results indicate the vertical extent residual PCB contamination extends to a depth of 2 feet below ground surface (bgs).
- Area B – Along the southern hillside, where recent analytical results indicate residual PCB contamination extends to at least 2 feet bgs and to the north toward the former Auto Prep Area.
- Area C – In the eastern portion of the unpaved fenced area, where the recent analytical results identified residual PCB contamination at soil boring B-615 to a depth of 5 feet bgs.
- Area D – Near the southeastern corner of the unpaved fence area, where recent analytical results identified residual PCB contamination at soil boring B-617 to at least 3 feet bgs.

[1] For details of the prior PCB cleanup, refer to CRA's letter report to Mr. Peter Ramanauskas, of USEPA, dated February 4, 2010. At the time of the prior PCB cleanup, City Scrap & Salvage Company operated at the site.

The scope of services for the supplemental PCB cleanup activities are summarized in the following tasks.

Task 1 – Project Management

This task includes logistical and scheduling coordination with the excavation/remediation contractor, the transportation and disposal contractor, the analytical laboratory, and personnel at TSB Metals & Recycling, LLC. On behalf of The Timken Company[2], Sanborn Head will coordinate the supplemental PCB cleanup activities described herein, as well as observe the excavation activities, conduct verification soil sampling, and prepare documentation for the PCB cleanup activities. The Environmental Quality Company (EQ) will provide transportation and disposal services, and Beaver Excavating Company (Beaver) will provide with earthwork and surveying services. Pace Analytical Services will provide analytical services.

Task 2 – Soil Excavation Activities

Sanborn Head will oversee and document activities performed by Beaver. In general, the field work for the supplemental PCB cleanup will include:

1. Mobilizing equipment and supplies;
2. Establishing work zones, a decontamination area, and a soil loading area;
3. Surveying and staking the four excavation areas identified on Figure 3;
4. Excavating soils with residual PCB contamination, and loading the soil directly into trucks for off-site disposal;
5. Collecting post-excavation soil samples to verify the removal of residual PCB contamination at Area B, Area C, and Area D;
6. Decontaminating equipment;
7. Transporting and disposing the excavated material off-site; and
8. Demobilizing equipment and supplies.

The depths of the excavations at Area A, Area B, Area C, and Area D will be approximately 2, 2, 5, and 3 feet bgs, respectively. The total volume of excavated soils is anticipated to be about 900 cubic yards. The sizes of the excavations at Area B, Area C and Area D are preliminary; post-excavation sampling will be conducted at these three areas to evaluate whether the residual PCB contamination (> 1 part per million [ppm]) has been adequately addressed. If necessary, the excavation and verification sampling activities will be repeated to demonstrate that the residual PCB contamination has been adequately addressed.

Post-excavation soil samples will be collected from the sidewalls and bottoms of the excavations and will be analyzed separately. One composite sample will be obtained for each 100 linear feet of side wall, and one composite sample will be obtained for each 400 square feet of the excavation bottom. Up to five grab samples collected from the sidewalls

[2] TSB Metals & Recycling, LLC. is a subsidiary of The Timken Company.

will be combined into a composite sample, and up to four grab samples collected from the excavation bottom will be composite sample. Grab samples will be obtained using disposable equipment, directly from excavator bucket. Individual grab samples will be containerized in laboratory supplied jars and placed in an ice-filled cooler pending delivery to the laboratory. Personnel at the laboratory will mix the grab samples into composite samples, which will be analyzed for PCB analysis by USEPA Method 8082.

Once the analytical results for the verification samples indicate the concentrations of PCBs in soils are less than 1 ppm, portions of the fence will be relocated to the perimeter of the area shown on Figure 3. Soil adhering to excavating equipment that contacts PCB contaminated soils will be removed using hand tools, before the equipment leaves the fenced portion of the site.

Task 3 – Implementing Controls to Restrict High-Occupancy Use

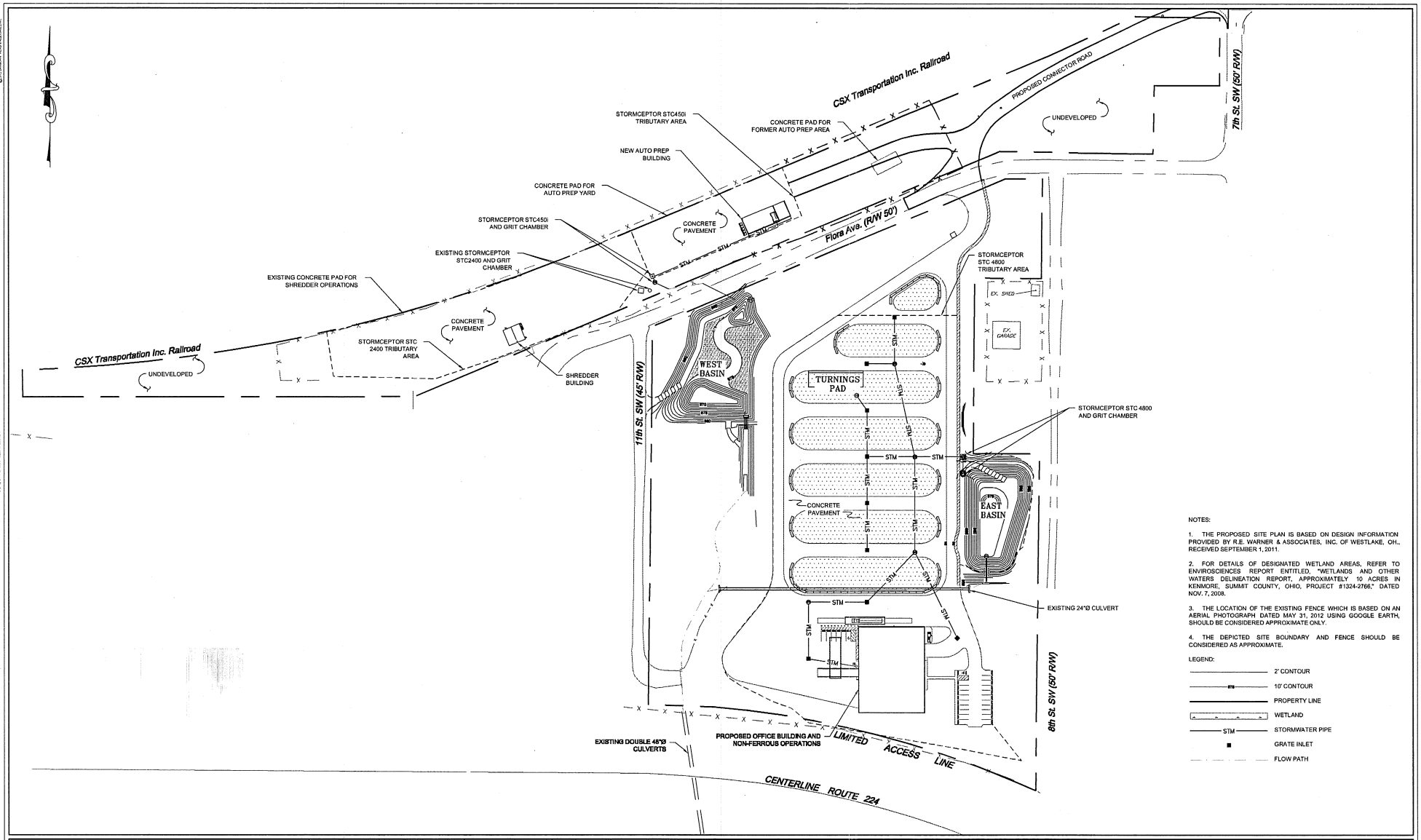
Upon completion of excavation activities, the original deed restriction that was recorded at the Summit County Auditor's Office on February 3, 2010 will be revised to recognize the new fence location and the location of the right-of-way for the connector road. The revised deed restriction will include a notation that identifies to a potential purchaser of the site during a title search, that the area within the new fence location has been used for PCB remediation waste disposal, and that except for the right-of-way, the site shall only be used for industrial or commercial uses. No other changes to the environmental land use controls in the original deed restriction will be made.

Task 4 – Summary Report for Supplemental PCB Cleanup

Within 14 days of the completion of the excavation activities, a report summarizing the above activities will be submitted to USEPA. The report will include tables and figures summarizing the analytical results and soil disposal activities, and the narrative will identify if any unanticipated conditions were encountered or if the scope of the activities outlined herein was modified.

Analytical results for the verification sampling and supporting information (daily field reports, chain of custodies, and copies of manifests) will be attached in appendices. A copy of the revised deed restriction bearing the mark of recordation will be included in the summary report.

Attachments: Figure 1 – Site Plan
Figure 2 – Concentrations of PCBs and TPH in Soil Samples
Figure 3 – PCB Pre-Construction Excavation Plan



NOTES:

1. THE PROPOSED SITE PLAN IS BASED ON DESIGN INFORMATION PROVIDED BY R.E. WARNER & ASSOCIATES, INC. OF WESTLAKE, OH., RECEIVED SEPTEMBER 1, 2011.

2. FOR DETAILS OF DESIGNATED WETLAND AREAS, REFER TO ENVIROSCIENCES REPORT ENTITLED, "WETLANDS AND OTHER WATERS DELINEATION REPORT, APPROXIMATELY 10 ACRES IN KENMORE, SUMMIT COUNTY, OHIO, PROJECT #1324-2766," DATED NOV. 7, 2008.

3. THE LOCATION OF THE EXISTING FENCE WHICH IS BASED ON AN AERIAL PHOTOGRAPH DATED MAY 31, 2012 USING GOOGLE EARTH, SHOULD BE CONSIDERED APPROXIMATE ONLY.

4. THE DEPICTED SITE BOUNDARY AND FENCE SHOULD BE CONSIDERED AS APPROXIMATE.

LEGEND:

- 2' CONTOUR
- 10' CONTOUR
- PROPERTY LINE
- WETLAND
- STORMWATER PIPE
- GRATE INLET
- FLOW PATH

SANBORN HEAD

GRAPHICAL SCALE
80' 40' 0 80' 160'

NO.	DATE	DESCRIPTION	BY

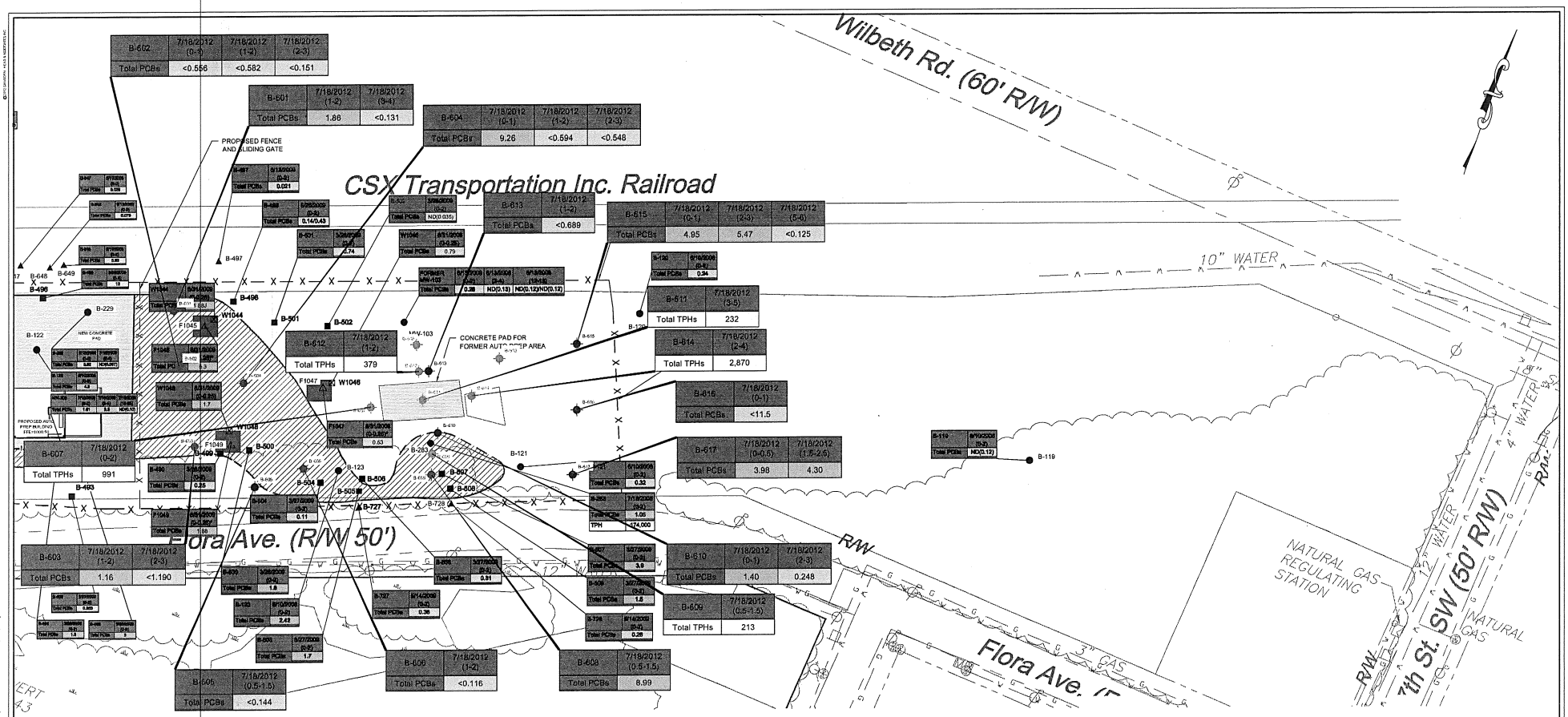
DRAWN BY: D. DOMBROWSKY
DESIGNED BY: P. GALLAGHER
REVIEWED BY: P. GALLAGHER
PROJECT MGR: P. GALLAGHER
PIC: P. GALLAGHER
DATE: AUGUST 2012

SOIL MANAGEMENT PLAN
TSB METALS RECYCLING
AKRON, OHIO

SITE PLAN

PROJECT NUMBER: 2927.01

SHEET NUMBER 1 OF 3



NOTES:

1. THE BASE MAP WAS DRAWN FROM AN AUTOCAD DRAWING NAMED "EM-410762.DWG" PROVIDED BY RE WARNER. THE LOCATION OF B-283 WAS REVISED BASED ON FIELD MEASUREMENTS BY SANBORN HEAD WHEN THE EXPLORATION WAS ADVANCED.
2. THE LOCATION OF THE EXISTING FENCE, WHICH IS BASED ON AN AERIAL PHOTOGRAPH DATED MAY 31, 2012 USING GOOGLE EARTH, SHOULD BE CONSIDERED APPROXIMATE ONLY.
3. THE PRE-2012 SOIL SAMPLE LOCATIONS AND CONCENTRATIONS OF TOTAL PCBs WERE DRAWN FROM AN AUTOCAD DRAWING TITLED "POST EXCAVATION VEHICLE PREPARATION AREA (FIGURE 4C)" DATED JANUARY 2010, BY CONESTOGA-ROVERS & ASSOCIATES. (CRA) LOCATIONS OF SOIL SAMPLES OBTAINED IN 2012 ARE BASED ON TAPE MEASUREMENTS FROM PROMINENT SITE FEATURES.
4. LOCATIONS OF SOIL SAMPLES SHOULD BE CONSIDERED APPROXIMATE.
5. "*" INDICATES THAT CRA USED THE FORMER EXCAVATION FLOOR AS THE DATUM TO MEASURE THE SAMPLE DEPTH INTERVAL (0-0.25'), DURING THE EARLIER PCB CLEANUP, CRA BACKFILLED THE EXCAVATIONS FROM WHICH SAMPLES WITH A "F" PREFIX WERE COLLECTED. THE SPECIFIC DEPTHS OF CRA'S EXCAVATIONS ARE UNKNOWN.

LEGEND:

— X — X — X — X —	EXISTING FENCE
● B-121	SHA DATA
■ B-507	CRA DATA (MARCH 2009)
▲ B-728	CRA DATA (MAY 2009)
•	SEE NOTE NUMBER 5
	APPROXIMATE LOCATION OF SOIL REPLACEMENT AREA FOR ORIGINAL PCB CLEANUP IN 2009

B-119	SAMPLE LOCATION
6/10/2009	SAMPLE DATE
(0-2)	SAMPLE DEPTH
Total PCBs ND(0.12)	RESULT (mg/kg)
	PARAMETER

TOTAL PCB CONCENTRATIONS
- < 1 ppm PCBs
- ≥ 1 up to < 10 ppm PCBs
- ≥ 10 up to < 25 ppm PCBs

TPH CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg)

SANBORN HEAD

GRAPHICAL SCALE
30' 15' 0' 30' 60'

NO.	DATE	DESCRIPTION	BY

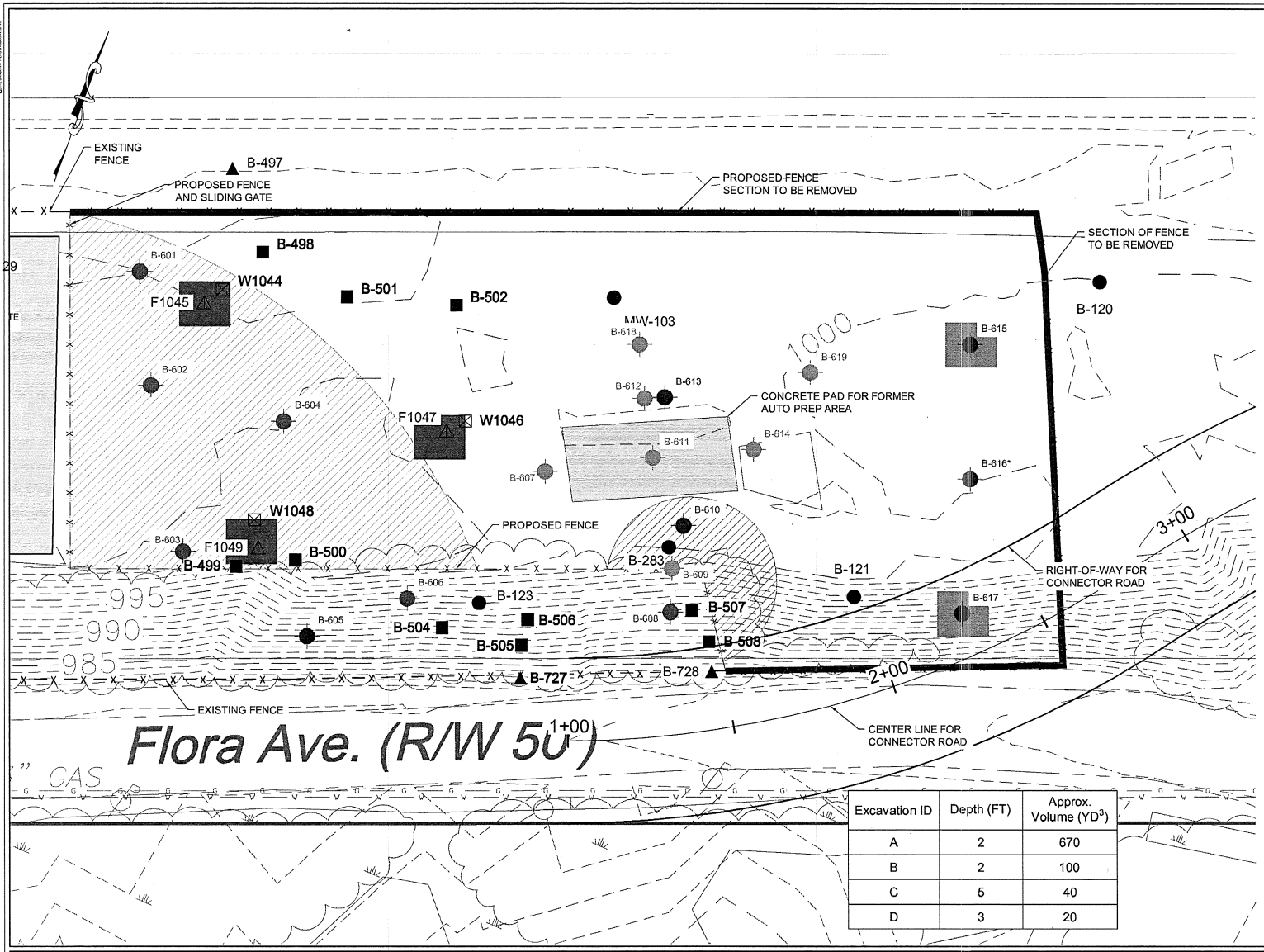
DRAWN BY: T. REED/D. DOMBROWSKY
DESIGNED BY: G. BOSILJCIC
REVIEWED BY: P. GALLAGHER
PROJECT MGR: P. GALLAGHER
PIC: P. GALLAGHER
DATE: AUGUST 2012

SOIL MANAGEMENT PLAN
TSB METALS RECYCLING
AKRON, OHIO

CONCENTRATIONS OF PCBs AND TPH IN SOIL SAMPLES

PROJECT NUMBER: 2927.01

SHEET NUMBER: 2 OF 3



NOTES:

1. THE BASE MAP WAS DRAWN FROM AN AUTOCAD DRAWING NAMED "EM-410762.DWG" PROVIDED BY RE WARNER.
2. THIS FIGURE DEPICTS THE PROPOSED EXCAVATION AREAS FOR PCB REMEDIATION ACTIVITIES TO SUPPORT THE RELOCATION OF THE EXISTING FENCE, WHICH IS AN ENGINEERING CONTROL FOR A USEPA-APPROVED CLEANUP IN 2009.
3. THE OBJECTIVE OF THE PROPOSED EXCAVATION ACTIVITIES IS TO REMOVE SOILS WITH PCB CONCENTRATIONS GREATER THAN 1 PART PER MILLION (PPM).
4. FOR THE EXCAVATION AREA IN WHICH VERIFICATION SAMPLING IS NOT PROPOSED, THE SIZE OF THE EXCAVATION IS BASED ON EXISTING ANALYTICAL RESULTS FOR THE EXPLORATIONS DEPICTED ON THIS FIGURE. REFER TO TABLE 1 FOR A SUMMARY OF THE EXISTING ANALYTICAL RESULTS.
5. FOR THE EXCAVATION AREAS IN WHICH VERIFICATION SAMPLING IS PROPOSED, THE DEPICTED SIZES OF THE EXCAVATIONS SHOULD BE CONSIDERED PRELIMINARY. THE ACTUAL SIZES OF THE EXCAVATIONS WILL BE BASED ON ANALYTICAL RESULTS OBTAINED DURING POST-EXCAVATION VERIFICATION SAMPLING, WHICH WILL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES ESTABLISHED FOR THE USEPA-APPROVED CLEANUP IN 2009.

LEGEND:

- B-121 — SHA DATA
- B-507 — CRA DATA (MARCH 2009)
- B-728 — CRA DATA (MAY 2009)
- EXISTING 2-FOOT ELEVATION CONTOUR
- 990 — EXISTING 10-FOOT ELEVATION CONTOUR
- PROPOSED 2-FOOT ELEVATION CONTOUR
- 1000 — PROPOSED 10-FOOT ELEVATION CONTOUR
- EXISTING FENCE
- AUTO PREP AREA
- APPROXIMATE LOCATION OF SOIL REPLACEMENT AREA FOR ORIGINAL PCB CLEANUP IN 2009
- SOIL BORING TO ASSESS HORIZONTAL DISTRIBUTION OF PCB CONTAMINATION
- SOIL BORING TO ASSESS THE VERTICAL DISTRIBUTION OF PCB CONTAMINATION
- SOIL BORING TO CHARACTERIZE SOIL CONDITIONS FOR TOTAL PETROLEUM HYDROCARBON CONTAMINATION NEAR THE FORMER AUTO PREP AREA.
- A — EXCAVATED TO 2 FEET; NO VERIFICATION SAMPLE ANTICIPATED
- B — EXCAVATE TO 2 FEET; VERIFICATION SAMPLING REQUIRED
- C — EXCAVATE TO 5 FEET; VERIFICATION SAMPLING REQUIRED
- D — EXCAVATE TO 3 FEET; VERIFICATION SAMPLING REQUIRED
- * — INDICATES THAT PCBs WERE NOT DETECTED AT B-616 BUT THE METHOD DETECTION LIMIT WAS GREATER THAN 1 PPM

Excavation ID	Depth (FT)	Approx. Volume (YD^3)
A	2	670
B	2	100
C	5	40
D	3	20

NOT FOR CONSTRUCTION

SANBORN HEAD

GRAPHICAL SCALE: 15' 7.5' 0' 15' 30'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: T. REED/D. DOMBROWSKY
DESIGNED BY: T. REED
REVIEWED BY: P. GALLAGHER
PROJECT MGR: P. GALLAGHER
PIC: P. GALLAGHER
DATE: AUGUST 2012

SOIL MANAGEMENT PLAN
TSB METALS RECYCLING
AKRON, OHIO

PCB Pre-Construction Excavation Plan

PROJECT NUMBER: 2927.01

SHEET NUMBER: 3 OF 3

EXHIBIT B

FIGURE FOR REVISED DEED RESTRICTION

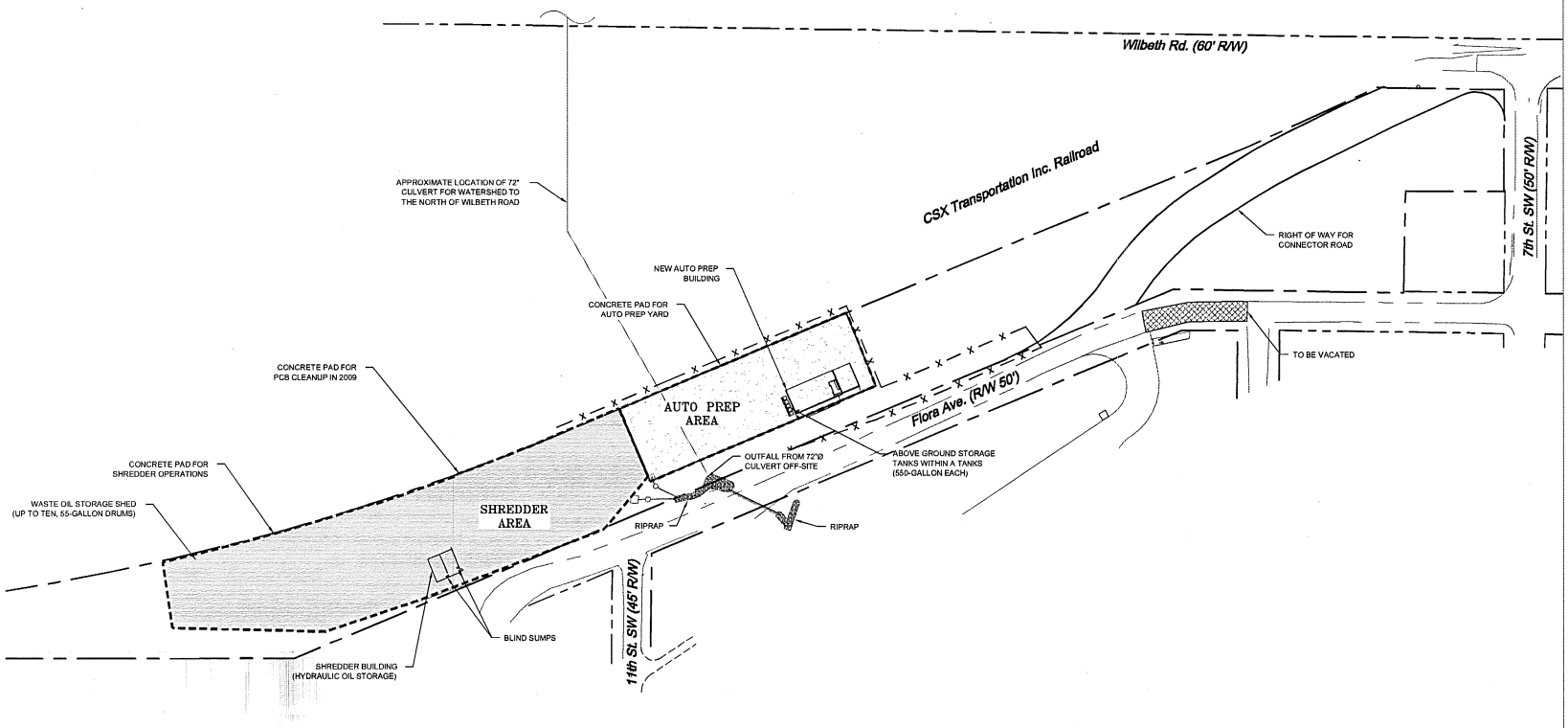


Figure 1

Site Plan
Connector Road

Deed Restriction

TSB Metals & Recycling, LLC
Akron, Ohio

Drawn By: D. Dombrowsky / E. Wright
Designed By: T. Reed / N. Orosz
Reviewed By: P. Gallagher
Project No: 2927.02
Date: August 2012

Notes

1. The site plan is based on design information provided by R.E. Warner & Associates, Inc. of Westlake, OH., received September 1, 2011.

2. The depicted site boundary should be considered as approximate.

Legend

Property Line

Fence

N
W E
S

70' 35' 0 70' 140' Feet

SANBORN HEAD

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TABLE

TABLE 1
Summary of Analytical Results - Soil Samples
TSB Metals Recycling, LLC. - Unpaved Fenced Area
Akron, Ohio

Soil Analytical Results (mg/kg)				
ID	**Date**	**Depth**	**Polychlorinated Biphenyls**	**Total Petroleum Hydrocarbons**
B-121	6/10/06	0-2'	0.320	-
B-123	6/10/06	0-2'	**2.42**	-
B-283	7/18/08	0-2'	**1.05**	**174,000**
B-495	3/26/09	0-2'	**3.00**	-
B-498	3/26/09	0-2'	0.430	-
B-499	3/26/09	0-2'	0.250	-
B-500	3/26/09	0-2'	**1.60**	-
B-501	3/26/09	0-2'	0.740	-
B-502	3/26/09	0-2'	<0.035	-
B-504	3/27/09	0-2'	0.110	-
B-505	3/27/09	0-2'	**1.70**	-
B-506	3/27/09	0-2'	0.310	-
B-507	3/27/09	0-2'	**3.90**	-
B-508	3/27/09	0-2'	**1.50**	-
B-601 S-2	7/18/12	1-2'	**1.86**	-
B-601 S-4		3-4'	<0.131	-
B-602 S-1	7/18/12	0-1'	<0.556	-
B-602 S-2		1-2'	<0.582	-
B-602 S-3		2-3'	<0.151	-
B-603 S-2	7/18/12	1-2'	**1.16**	-
B-603 S-3		2-3'	<1.190	-
B-604 S-1	7/18/12	0-1'	**9.26**	-
B-604 S-2		1-2'	<0.594	-
B-604 S-3		2-3'	<0.548	-
B-605 S-2	7/17/12	0.5-1.5'	<0.144	-
B-606 S-2	7/18/12	1-2'	<0.116	-
B-607 S-1	7/18/12	0-2'	-	991
B-608 S-2	7/17/12	0.5-1.5'	**8.99**	-
B-609 S-2	7/18/12	0.5-1.5'	-	213
B-610 S-1	7/18/12	0-1'	**1.40**	-
B-610 S-3		2-3'	0.248	-
B-611 S-2	7/18/12	3-5'	-	232
B-612 S-2	7/18/12	1-2'	-	379
B-613 S-2	7/18/12	1-2'	<0.689	-
B-614 S-3	7/18/12	2-4'	-	2,870
B-615 S-1	7/18/12	0-1'	**4.95**	-
B-615 S-3		2-3'	**5.47**	-
B-615 S-6		5-6'	<0.125	-
B-616 S-1	7/18/12	0-1'	<11.5	-
B-617 S-1	7/17/12	0-0.5'	**3.98**	-
B-617 S-3		1.5-2.5'	**4.30**	-
B-727	5/14/09	0-2'	0.380	-
B-728	5/14/09	0-2'	0.260	-
F1045	8/31/09	0-0.25'	**5.30**	-

TABLE 1
Summary of Analytical Results - Soil Samples
TSB Metals Recycling, LLC. - Unpaved Fenced Area
Akron, Ohio

Soil Analytical Results (mg/kg)				
ID	**Date**	**Depth**	**Polychlorinated Biphenyls**	**Total Petroleum Hydrocarbons**
F1047	8/31/09	0-0.25'	0.530	-
F1049	8/31/09	0-0.25'	**1.88**	-
MW-103	6/13/06	0-2'	0.260	-
		2-4'	<0.130	-
		12-16'	<0.120	-
W1044	8/31/09	0-0.25	**1.88**	-
W1046	8/31/09	0-0.25'	0.790	-
W1048	8/31/09	0-0.25'	**1.70**	-

Notes:

1. Sample concentrations are reported in milligrams per kilogram (mg/kg) or parts per million (ppm).

2. Samples were analyzed for polychlorinated biphenyls (PCBs) using United States Environmental Protection Agency (USEPA) Method 8082 or for total petroleum hydrocarbons (TPH) using USEPA Method 8015. Reported concentrations are the calculated totals for both Diesel Range Organics (DRO) and Gasoline Range Organics (GRO).

3. Samples analyzed in 2006, 2008 and 2012 were collected by Sanborn, Head & Associates, Inc. Samples analyzed in 2009 were collected by Conestoga-Rovers & Associates (CRA).

4. Samples F1045, F1045, F1049, W1044, W1046, W1048 are composite samples collected by CRA as a part of PCB post excavation verification sampling. All other samples were collected as grab samples.

5. **Bold** PCB results indicates the concentration is greater than 1 mg/kg, the level above which a remedy is required by the USEPA.

6. **Bold** TPH results were indicates the concentration is greater than the applicable standard under the Ohio Voluntary Action Program.

7. "-" indicates that the sample was not analyzed for the specified analysis.

8. "<" indicates that analyte was not detected above the method reporting limit (RL), which is the value that follows the "<".

APPENDIX A

LIMITATIONS

APPENDIX A
LIMITATIONS

1. This report is based in part on the data obtained from a limited number of samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation (or remediation) is initiated. If variations or other latent conditions should become evident, it will be necessary to re-evaluate the recommendations of this report.

2. Quantitative laboratory analyses were performed as part of the investigation as noted within the report. The analyses were performed for specific parameters that were selected during the course of this study. Sanborn, Head & Associates, Inc. (Sanborn Head) has relied upon the data provided by the analytical laboratory, and has not conducted an independent evaluation of the reliability of these data. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distributions within the groundwater and soil may occur due to the passage of time, seasonal water table fluctuations, recharge events, and other factors.

3. The conclusions and recommendations contained in this report are based in part upon various types of chemical data. While Sanborn Head has reviewed that data and information as stated in this report, any of Sanborn Head's interpretations, conclusions, and recommendations that have relied on that information will be contingent on its validity. Should additional chemical data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by Sanborn Head and the interpretations, conclusions, and recommendations presented herein should be modified accordingly.

4. This report has been prepared for the exclusive use of The Timken Company for specific application to TSB Metals & Recycling, LLC. in Akron, Ohio in accordance with generally accepted hydrogeologic and environmental practices. No other warranty, expressed or implied, is made.

5. In the event that any changes in the nature, design, or location of the facility are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by Sanborn Head. Sanborn Head is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or re-use of the subsurface data or engineering analyses without the express written authorization of Sanborn Head.

APPENDIX B

SOIL BORING LOGS

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-601

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Log	Description	Geologic Description
0	S-1	0.0 - 1.0	1.0/ 0.7	PID: ND		-----0'-----	S-1 (0 to 1'): Brown, fine to coarse SAND and fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.
	S-2	1.0 - 2.0	1.0/ 0.7	PID: ND			S-2 (1 to 2'): Brown, fine to coarse SAND and fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.
2	S-3	2.0 - 3.0	1.0/ 0.7	PID: ND			S-3 (2 to 3'): Dark brown, fine to coarse SAND, trace fine to coarse Gravel, trace Silt, with brick fragments. Moist. FILL.
	S-4	3.0 - 4.0	1.0/ 0.7	PID: ND		FILL	S-4 (3 to 4'): Dark brownish-black, fine to coarse SAND, trace fine to coarse Gravel, trace Silt, with glass and metal fragments. Moist. FILL.
4	S-5	4.0 - 5.0	1.0/ 0.7	PID: ND			S-5 (4 to 5'): Dark brownish-black, fine to coarse SAND, trace fine to coarse Gravel, trace Silt, with glass and metal fragments. Moist. FILL.
	S-6	5.0 - 6.0	1.0/ 1.0	PID: ND			S-6 (5 to 6'): Dark brownish-black, fine to coarse SAND, trace fine to coarse Gravel, trace Silt, with brick and glass fragments. Moist. FILL.
6						-----6.0'-----	
8							Boring terminated at 6.0 feet bgs.
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Remarks

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2. Soil samples S-2 (1.0-2.0') and S-4 (3.0-4.0') were submitted for laboratory analyses.

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-602

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/0.7	PID: ND		-----0'-----	S-1 (0 to 1'): Brownish -gray, fine to coarse SAND and fine to medium Gravel, trace Silt, with brick and glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/0.7	PID: ND			S-2 (1 to 2'): Dark brownish-black, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/0.7	PID: ND			S-3 (2 to 3'): Dark brownish-black, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/0.7	PID: ND		FILL	S-4 (3 to 4'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/0.7	PID: ND			S-5 (4 to 5'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/0.7	PID: ND			S-6 (5 to 6'): Blackish-red, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil samples S-1 (0.0-1.0'), S-2 (1.0-2.0'), and S-3 (2.0-3.0') were submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-603

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/ 0.7	PID: ND		-----0'-----	S-1 (0 to 1'): Brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/ 0.7	PID: ND			S-2 (1 to 2'): Brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/ 0.7	PID: ND			S-3 (2 to 3'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/ 0.7	PID: ND		FILL	S-4 (3 to 4'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/ 0.7	PID: ND			S-5 (4 to 5'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/ 1.0	PID: ND			S-6 (5 to 6'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, trace brick fragments. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil samples S-2 (1.0-2.0') and S-3 (2.0-3.0') were submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-604

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/0.7	PID: ND		-----0'-----	S-1 (0 to 1'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick and foam fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/0.7	PID: ND			S-2 (1 to 2'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments, Slag. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/0.7	PID: ND			S-3 (2 to 3'): Blackish-red, fine to coarse SAND, trace Silt, with glass fragments. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/0.7	PID: ND		FILL	S-4 (3 to 4'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, Slag. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/0.7	PID: ND			S-5 (4 to 5'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/0.7	PID: ND			S-6 (5 to 6'): Blackish-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick and metal fragments. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil samples S-1 (0.0-1.0'), S-2 (1.0-2.0'), and S-3 (2.0-3.0') are submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-605

Ground Elevation: Not Available

Drilling Method: Hand Auger

Sampling Method: Grab Sampling

Drilling Company: Sanborn, Head & Associates, Inc.
Foreman: M. Kemp
Date Started: 07/17/12 Date Finished: 07/17/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/17/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 0.5		6/6	PID: ND		-----0'-----	S-1 (0 to 0.5'): Dark brown, fine to coarse SAND and SILT, trace Brick, trace brick fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	0.5 - 1.5		12/12	PID: ND		FILL	S-2 (0.5 to 1.5'): Dark brown, fine to coarse SAND and SILT, trace Brick, trace brick fragments. Moist. FILL.	2. Soil sample S-2 (0.5-1.5') was submitted for laboratory analyses.
2	S-3	1.5 - 2.5		12/12	PID: ND			S-3 (1.5 to 2.5'): Dark brown, fine to coarse SAND, trace Silt, trace coarse Gravel, with glass fragments. Moist. FILL.	
	s-4	2.5 - 3.0		6/6	PID: ND		-----3.0'-----	S-4 (2.5 to 3'): Dark brown, fine to coarse SAND, trace Silt, trace coarse Gravel, with glass fragments. Moist. FILL.	
4								Boring terminated at 3.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-606

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0		12/6	PID: ND		-----0'-----	S-1 (0 to 1'): Brownish-gray, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0		12/6	PID: ND			S-2 (1 to 2'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
2	S-3	2.0 - 3.0		12/6	PID: ND			S-3 (2 to 3'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
	S-4	3.0 - 4.0		12/6	PID: ND		FILL	S-4 (3 to 4'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
4	S-5	4.0 - 5.0		12/6	PID: ND			S-5 (4 to 5'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.	
	S-6	5.0 - 6.0		12/6	PID: ND			S-6 (5 to 6'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	2. Soil sample S-2 (1.0-2.0') was submitted for laboratory analyses.
6							-----6.0'-----	Boring terminated at 6.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-607

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 2.0	2.0/ 1.5	PID: ND		-----0'-----	S-1 (0 to 2'): Brownish-redish-orange, fine to coarse SAND and fine to medium Gravel, trace Silt, with brick fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2	S-2	2.0 - 4.0	2.0/ 1.5	PID: ND		FILL	S-2 (2 to 4'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Moist. FILL.	
4	S-3	4.0 - 6.0	2.0/ 1.5	PID: ND			S-3 (4 to 6'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil sample S-1 (0.0-2.0') was submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-608

Ground Elevation: Not Available

Drilling Method: Hand Auger

Sampling Method: Grab Sampling

Drilling Company: Sanborn, Head & Associates, Inc.
Foreman: M. Kemp
Date Started: 07/17/12 **Date Finished: 07/17/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/17/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 0.5		6/6	PID: ND		-----0'-----	S-1 (0 to 0.5'): Brown, fine to coarse SAND and SILT, trace fine Gravel, trace glass an brick fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	0.5 - 1.5		12/12	PID: ND		FILL	S-2 (0.5 to 1.5'): Dark brown, fine to coarse SAND and SILT, trace fine to medium Gravel, with brick fragments. Moist. FILL.	2. Soil sample S-2 (0.5-1.5') was submitted for laboratory analyses.
2	S-3	1.5 - 2.5		12/12	PID: ND			S-3 (1.5 to 2.5'): Dark brown, fine to coarse SAND and SILT, trace fine to medium Gravel, with brick fragments. Moist. FILL.	
	S-4	2.5 - 3.0		6/6	PID: ND		-----3.0'-----	S-4 (2.5 to 3'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, trace glass fragments. Moist. FILL.	
4								Boring terminated at 3.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-609

Ground Elevation: Not Available

Drilling Method: Hand Auger

Sampling Method: Grab Sampling

Drilling Company: Sanborn, Head & Associates, Inc.
Foreman: M. Kemp
Date Started: 07/17/12 Date Finished: 07/17/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/17/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 0.5		6/6	PID: ND		-----0'-----	S-1 (0 to 0.5'): Greenish-brown, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	0.5 - 1.5		12/12	PID: ND		FILL	S-2 (0.5 to 1.5'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with glass and brick fragments. Moist. FILL.	
2	S-3	1.5 - 2.5		12/12	PID: ND			S-3 (1.5 to 2.5'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments, little glass. Moist. FILL.	
	S-4	2.5 - 3.0		6/6	PID: ND		-----3.0'-----	S-4 (2.5 to 3'): Dark brown, fine to coarse SAND and fine to medium Gravel, trace Silt, with metal fragments. Moist. FILL.	2. Soil sample S-2 (0.5-1.5') was submitted for laboratory analyses.
4								Boring terminated at 3.0 feet bgs.	
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BORING LOG S:\OHIDATA\2927\LOGS\2927 LOGS.GPJ 2010 SANBORN HEAD V1.GLB 2010 SANBORN HEAD V1.GDT 8/14/12

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-610

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/0.5	PID: 2.1 ppmv		-----0'-----	S-1 (0 to 1'): Brown, fine to coarse SAND and fine to medium Gravel, trace Silt, with metal fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/0.5	PID: ND			S-2 (1 to 2'): Brown-dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/0.5	PID: ND			S-3 (2 to 3'): Blackish-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/0.5	PID: ND		FILL	S-4 (3 to 4'): Blackish-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/0.5	PID: ND			S-5 (4 to 5'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/0.5	PID: ND			S-6 (5 to 6'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil samples S-1 (0.0-1.0') and S-3 (2.0-3.0') were submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-611

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 **Date Finished: 07/18/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Log	Description	Geologic Description
0	S-1	0.0 - 3.0	1.5/ 0.5	PID: ND		-----0'-----	S-1 (0 to 3'): Gray, CONCRETE.
2						CONCRETE	
	S-2	3.0 - 5.0	2.0/ 1.5	PID: ND		-----3.0'-----	S-2 (3 to 5'): Black, fine to coarse SAND and fine to medium Gravel, trace Silt, with glass fragments. Black staining and petroleum odor. Moist. FILL.
4							
	S-3	5.0 - 6.0	1.0/ 0.7	PID: ND			S-3 (5 to 6'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with glass fragments. Moist. FILL.
6	S-4	6.0 - 8.0	2.0/ 1.5	PID: ND		FILL	S-4 (6 to 8'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with glass fragments. Moist. FILL.
8	S-5	8.0 - 9.0	1.0/ 0.7	PID: ND			S-5 (8 to 9'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Staining. Moist. FILL.
	S-6	9.0 - 10.0	1.0/ 0.5	PID: ND			S-6 (9 to 10'): Black-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.
10						----10.0'-----	Boring terminated at 10.0 feet bgs.
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Remarks

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2. Soil sample S-2 (3.0-5.0') was submitted for laboratory analyses.

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-612

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 **Date Finished: 07/18/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/0.3	PID: 2.0 ppmv		-----0'-----	S-1 (0 to 1'): Grayish-brown, fine to coarse SAND and fine to coarse Gravel, trace Silt, with glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/0.3	PID: 6.8 ppmv			S-2 (1 to 2'): Black, fine to coarse SAND and fine to coarse Gravel, trace Silt, with glass fragments. Staining, hydrocarbon odor. Moist. FILL.	
2	S-3	2.0 - 4.0	2.0/1.0	PID: ND			S-3 (2 to 4'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, trace glass fragments. Some staining. Moist. FILL.	
4	S-4	4.0 - 6.0	2.0/0.7	PID: 1.6 ppmv			S-4 (4 to 6'): Blackish-orange, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	
6	S-5	6.0 - 8.0	2.0/0.7	PID: ND		FILL	S-5 (6 to 8'): Blackish-orange, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	2. Soil sample S-2 (1.0-2.0') was submitted for laboratory analyses.
8	S-6	8.0 - 10.0	2.0/0.7	PID: ND			S-6 (8 to 10'): Blackish-orange, fine to coarse SAND and fine to medium Gravel, trace Silt, with metal fragments. Moist. FILL.	
10	S-7	10.0 - 12.0	2.0/0.7	PID: ND			S-7 (10 to 12'): Black, fine to coarse SAND and fine to medium Gravel, trace Silt, Slag. Moist. FILL.	
12						-----12.0'-----	Boring terminated at 12.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-613

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum Log	Stratum Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/ 1.0	PID: 8.1 ppmv		-----0'-----	S-1 (0 to 1'): Gray, fine to coarse SAND and fine to medium Gravel, trace Silt, with glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/ 1.0	PID: 1.6 ppmv			S-2 (1 to 2'): Brownish-black, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Black staining. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/ 1.0	PID: ND			S-3 (2 to 3'): Brownish-black, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Black staining. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/ 1.0	PID: 3.5 ppmv		FILL	S-4 (3 to 4'): Black, fine to coarse SAND and fine Gravel, trace Silt, with metal fragments. Black staining. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/ 1.0	PID: ND			S-5 (4 to 5'): Black, fine to coarse SAND and fine Gravel, trace Silt, with metal fragments. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/ 0.7	PID: ND			S-6 (5 to 6'): Dark orange to orange, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	2. Soil sample S-2 (1.0-2.0') was submitted for laboratory analyses.
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-614

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 **Date Finished: 07/18/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description
0	S-1	0.0 - 1.0	1.0/0.5	PID: ND		-----0'-----	S-1 (0 to 1'): Gray, CONCRETE.
	S-2	1.0 - 2.0	1.0/0.5	PID: ND			S-2 (1 to 2'): Brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with brick fragments. Moist. FILL.
2	S-3	2.0 - 4.0	2.0/1.5	PID: ND			S-3 (2 to 4'): Dark brownish-black, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Black staining, petroleum odor. Moist. FILL.
4	S-4	4.0 - 6.0	2.0/2.0	PID: ND			S-4 (4 to 6'): Dark brownish-black, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Black staining, petroleum odor. Moist. FILL.
6	S-5	6.0 - 8.0	2.0/2.0	PID: ND		FILL	S-5 (6 to 8'): Dark brownish-black, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments and wood chunks. Black staining, petroleum odor. Moist. FILL.
8	S-6	8.0 - 10.0	2.0/2.0	PID: ND			S-6 (8 to 10'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Black staining. Moist. FILL.
10	S-7	10.0 - 12.0	2.0/1.0	PID: ND			S-7 (10 to 12'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.
12						-----12.0'-----	Boring terminated at 12.0 feet bgs.
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Remarks

1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2. Soil sample S-3 (2.0-4.0') was submitted for laboratory analyses.

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-615

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum Log	Stratum Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/ 1.0	PID: ND		-----0'-----	S-1 (0 to 1'): Brown, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/ 1.0	PID: ND			S-2 (1 to 2'): Brown-dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/ 1.0	PID: ND			S-3 (2 to 3'): Dark brownish-black, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with metal fragments. Approximately 1-2" staining. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/ 1.0	PID: ND		FILL	S-4 (3 to 4'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with metal fragments. Approximately 1-2" staining. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/ 1.0	PID: ND			S-5 (4 to 5'): Dark brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with metal fragments. Approximately 1-2" staining. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/ 1.0	PID: ND			S-6 (5 to 6'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Moist. FILL.	2. Soil samples S-1 (0.0-1.0'), S-3 (2.0-3.0'), and S-6 (5.0-6.0') were submitted for laboratory analyses.
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-616

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 **Date Finished: 07/18/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 1.0	1.0/ 1.0	PID: ND		-----0'-----	S-1 (0 to 1'): Brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	1.0 - 2.0	1.0/ 1.0	PID: ND			S-2 (1 to 2'): Brown, fine to coarse SAND, trace fine to medium Gravel, trace Silt, with glass fragments. Moist. FILL.	
2	S-3	2.0 - 3.0	1.0/ 1.0	PID: ND			S-3 (2 to 3'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
	S-4	3.0 - 4.0	1.0/ 1.0	PID: ND		FILL	S-4 (3 to 4'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick fragments. Moist. FILL.	
4	S-5	4.0 - 5.0	1.0/ 1.0	PID: ND			S-5 (4 to 5'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick, glass, and metal fragments. Moist. FILL.	
	S-6	5.0 - 6.0	1.0/ 1.0	PID: ND			S-6 (5 to 6'): Dark brown, fine to coarse SAND, trace fine Gravel, trace Silt. Moist. FILL.	2. Soil sample S-1 (0.0-1.0') was submitted for laboratory analyses.
6						-----6.0'-----	Boring terminated at 6.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-617

Ground Elevation: Not Available

Drilling Method: Hand Auger

Sampling Method: Grab Sampling

Drilling Company: Sanborn, Head & Associates, Inc.
Foreman: M. Kemp
Date Started: 07/17/12 Date Finished: 07/17/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/17/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 0.5		6/6	PID: ND		-----0'-----	S-1 (0 to 0.5'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick and glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
	S-2	0.5 - 1.5		12/12	PID: ND		FILL	S-2 (0.5 to 1.5'): Dark brown, fine to coarse SAND and fine Gravel, trace Silt, with brick and glass fragments. Moist. FILL.	
2	S-3	1.5 - 2.5		12/12	PID: ND			S-3 (1.5 to 2.5'): Dark brownish-gray, fine to coarse SAND, trace fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.	
	S-4	2.5 - 3.0		6/6	PID: ND		-----3.0'-----	S-4 (2.5 to 3'): Dark brownish-gray, fine to coarse SAND, trace fine Gravel, trace Silt, with glass and metal fragments. Moist. FILL.	2. Soil samples S-1 (0.0-0.5') and S-3 (1.5-2.5') were submitted for laboratory analyses.
4								Boring terminated at 3.0 feet bgs.	
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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-618

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 **Date Finished: 07/18/12**
Logged By: M. Kemp **Checked By: P. Gallagher**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/16/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 2.0	2.0/ 1.5	PID: ND		-----0'-----	S-1 (0 to 2'): Black, fine to coarse SAND and fine to medium Gravel, trace Silt, with brick fragments. Black staining. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2	S-2	2.0 - 4.0	2.0/ 1.5	PID: ND			S-2 (2 to 4'): Black, fine to coarse SAND and fine to medium Gravel, trace Silt, with brick fragments. Black staining. Moist. FILL.	
4	S-3	4.0 - 6.0	2.0/ 1.5	PID: ND			S-3 (4 to 6'): Black, fine to coarse SAND and fine Gravel, trace Silt, with brick and glass fragments. Black staining. Moist. FILL.	
6	S-4	6.0 - 8.0	2.0/ 1.5	PID: ND		FILL	S-4 (6 to 8'): Black, fine to coarse SAND and fine Gravel, trace Silt, with brick and glass fragments. Black staining. Moist. FILL.	2. No soil samples were submitted for laboratory analyses.
8	S-5	8.0 - 10.0	2.0/ 1.5	PID: ND			S-5 (8 to 10'): Black, fine to coarse SAND and fine Gravel, trace Silt, with brick and glass fragments. Black staining. Moist. FILL.	
10	S-6	10.0 - 12.0	1.0/ 0.7	PID: ND			S-6 (10 to 12'): Black, fine to coarse SAND, trace fine Gravel, trace Silt, with glass fragments. Black staining. Moist. FILL.	
12						----12.0'-----	Boring terminated at 12.0 feet bgs.	
14								
16								
18								
20								
22								
24								

BORING LOG S:\OHIDATA\2927\LOGS\2927 LOGS.GPJ 2010 SANBORN HEAD V1.GLB 2010 SANBORN HEAD V1.GDT 8/14/12

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: TSB Metals & Recycling, LLC
Location: Akron, Ohio
Project No.: 2927.01

Log of Boring B-619

Ground Elevation: Not Available

Drilling Method: Geoprobe® 7822DT Track Rig

Sampling Method: 2-1/2" MacroCore Continuous

Drilling Company: EnviroCore Limited
Foreman: J. Amick
Date Started: 07/18/12 Date Finished: 07/18/12
Logged By: M. Kemp Checked By: P. Gallagher

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
07/18/12	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen/ Rec (ft)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0.0 - 2.0	2.0/ 2.0	PID: ND		----0'-----	S-1 (0 to 2'): Brown-dark brown, fine to coarse SAND and fine to medium Gravel, trace Silt, with metal and glass fragments. Moist. FILL.	1. Soil samples were screened for volatile organic compounds (VOCs) using a Photovac Model 2020 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.
2	S-2	2.0 - 4.0	2.0/ 2.0	PID: 1.5 ppmv			S-2 (2 to 4'): Dark brownish-black, fine to coarse SAND and fine to medium Gravel, trace Silt, with metal and glass fragments. Black staining at approximately 2.1' to 2.4' bgs. Moist. FILL.	
4	S-3	4.0 - 6.0	2.0/ 2.0	PID: ND			S-3 (4 to 6'): Brown, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Black staining. Moist. FILL.	
6	S-4	6.0 - 8.0	2.0/ 1.0	PID: ND		FILL	S-4 (6 to 8'): Brown, fine to coarse SAND, trace fine Gravel, trace Silt, with metal fragments. Moist. FILL.	2. No soil samples were submitted for laboratory analyses.
8	S-5	8.0 - 10.0	2.0/ 1.0	PID: ND			S-5 (8 to 10'): Brown, fine to coarse SAND, trace fine Gravel, trace Silt, with brick fragments. Black staining. Moist. FILL.	
10	S-6	10.0 - 12.0	2.0/ 2.0	PID: ND			S-6 (10 to 12'): Brown, fine to coarse SAND, trace fine Sand, and Silt, with glass fragments. Black staining. Moist. FILL.	
12						----12.0'-----	Boring terminated at 12.0 feet bgs.	
14								
16								
18								
20								
22								
24								

BORING LOG S:\OHIDATA\2927\LOGS\2927 LOGS.GPJ 2010 SANBORN HEAD V1.GLB 2010 SANBORN HEAD V1.GDT 8/14/12

APPENDIX C

ANALYTICAL LABORATORY REPORTS

Pace Analytical®
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Pace Analytical Services, Inc.
1233 Dublin Road
Columbus, OH 43215
(614)486-5421

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7726 Moller Road
Indianapolis, IN 46268
(317)875-5894

July 24, 2012

Mr. Paul Gallagher
Sanborn Head & Associates
3770 Embassy Pkwy
Ste 110
Akron, OH 44333

RE: Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Dear Mr. Gallagher:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kelly M Jones

Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures

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(317)875-5894

CERTIFICATIONS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Louisiana/NELAC Certification #: 04076
Ohio VAP: CL0065
Pennsylvania: 68-04991
West Virginia Certification #: 330

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Indianapolis, IN 46268
(317)875-5894

SAMPLE SUMMARY

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066363001	**B601 S-4**	Solid	07/18/12 09:15	07/20/12 09:33
5066363002	**B602 S-3**	Solid	07/18/12 09:24	07/20/12 09:33
5066363003	**B603 S-3**	Solid	07/18/12 14:47	07/20/12 09:33
5066363004	**B604 S-3**	Solid	07/18/12 09:48	07/20/12 09:33
5066363005	**B605 S-2**	Solid	07/17/12 13:37	07/20/12 09:33
5066363006	**B606 S-2**	Solid	07/18/12 10:14	07/20/12 09:33
5066363007	**B607 S-1**	Solid	07/18/12 10:39	07/20/12 09:33
5066363008	**B608 S-2**	Solid	07/17/12 14:23	07/20/12 09:33
5066363009	**B609 S-2**	Solid	07/17/12 15:04	07/20/12 09:33
5066363010	**B610 S-1**	Solid	07/18/12 12:39	07/20/12 09:33
5066363011	**B611 S-2**	Solid	07/18/12 11:51	07/20/12 09:33
5066363012	**B612 S-2**	Solid	07/18/12 11:14	07/20/12 09:33
5066363013	**B613 S-2**	Solid	07/18/12 11:26	07/20/12 09:33
5066363014	**B614 S-3**	Solid	07/18/12 13:20	07/20/12 09:33
5066363015	**B615 S-1**	Solid	07/18/12 13:54	07/20/12 09:33
5066363016	**B616 S-1**	Solid	07/18/12 14:29	07/20/12 09:33
5066363017	**B617 S-1**	Solid	07/18/12 15:35	07/20/12 09:33

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(317)875-5894

SAMPLE ANALYTE COUNT

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066363001	**B601 S-4**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363002	**B602 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363003	**B603 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363004	**B604 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363005	**B605 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363006	**B606 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363007	**B607 S-1**	EPA 8015 Mod Ext	RAK	4	PASI-I
		EPA 8015 Mod Pur	AMV	4	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363008	**B608 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363009	**B609 S-2**	EPA 8015 Mod Ext	RAK	4	PASI-I
		EPA 8015 Mod Pur	AMV	4	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363010	**B610 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363011	**B611 S-2**	EPA 8015 Mod Ext	RAK	4	PASI-I
		EPA 8015 Mod Pur	AMV	4	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363012	**B612 S-2**	EPA 8015 Mod Ext	RAK	4	PASI-I
		EPA 8015 Mod Pur	AMV	4	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363013	**B613 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363014	**B614 S-3**	EPA 8015 Mod Ext	RAK	4	PASI-I
		EPA 8015 Mod Pur	AMV	4	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363015	**B615 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066363016	**B616 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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Indianapolis, IN 46268
(317)875-5894

SAMPLE ANALYTE COUNT

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066363017	**B617 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B601 S-4 **Lab ID: 5066363001** Collected: 07/18/12 09:15 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	131	1	07/20/12 12:55	07/23/12 18:31	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	71	%.	32-105	1	07/20/12 12:55	07/23/12 18:31	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**20.0**	%	0.10	1		07/20/12 16:59		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B602 S-3 **Lab ID: 5066363002** Collected: 07/18/12 09:24 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	151	1	07/20/12 12:55	07/23/12 18:37	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	81	%.	32-105	1	07/20/12 12:55	07/23/12 18:37	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**30.6**	%	0.10	1		07/20/12 16:59		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B603 S-3 **Lab ID: 5066363003** Collected: 07/18/12 14:47 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1190	10	07/20/12 12:55	07/23/12 18:56	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	10	07/20/12 12:55	07/23/12 18:56	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**11.5**	%	0.10	1		07/20/12 16:59		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B604 S-3 **Lab ID: 5066363004** Collected: 07/18/12 09:48 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	548	5	07/20/12 12:55	07/23/12 19:02	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	92	%.	32-105	5	07/20/12 12:55	07/23/12 19:02	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.3**	%	0.10	1		07/20/12 16:59		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B605 S-2 **Lab ID: 5066363005** Collected: 07/17/12 13:37 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	144	1	07/20/12 12:55	07/23/12 18:44	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	61	%.	32-105	1	07/20/12 12:55	07/23/12 18:44	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**27.0**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B606 S-2 **Lab ID: 5066363006** Collected: 07/18/12 10:14 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	116	1	07/20/12 12:55	07/23/12 18:50	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	86	%.	32-105	1	07/20/12 12:55	07/23/12 18:50	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.8**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B607 S-1 **Lab ID: 5066363007** Collected: 07/18/12 10:39 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	**991**	mg/kg	446	20	07/20/12 12:55	07/23/12 12:05		
TPH (C10-C20)	ND	mg/kg	223	20	07/20/12 12:55	07/23/12 12:05		
TPH (C20-C34)	**879**	mg/kg	223	20	07/20/12 12:55	07/23/12 12:05		
Surrogates								
n-Pentacosane (S)	0	%.	30-126	20	07/20/12 12:55	07/23/12 12:05	629-99-2	S4
8015 Gasoline Range Organics	Analytical Method: EPA 8015 Mod Pur							
Gasoline Range Organics	ND	mg/kg	1.1	1		07/21/12 02:00		
TPH (C06-C10)	ND	mg/kg	1.1	1		07/21/12 02:00		
TPH (C06-C12)	ND	mg/kg	1.1	1		07/21/12 02:00		
Surrogates								
4-Bromofluorobenzene (S)	89	%.	30-163	1		07/21/12 02:00	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.2**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B608 S-2 **Lab ID: 5066363008** Collected: 07/17/12 14:23 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**8990**	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	2400	20	07/20/12 12:55	07/23/12 19:08	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	20	07/20/12 12:55	07/23/12 19:08	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.5**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B609 S-2 **Lab ID: 5066363009** Collected: 07/17/12 15:04 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	**213**	mg/kg	44.0	2	07/20/12 12:55	07/23/12 12:25		
TPH (C10-C20)	**118**	mg/kg	22.0	2	07/20/12 12:55	07/23/12 12:25		
TPH (C20-C34)	**95.0**	mg/kg	22.0	2	07/20/12 12:55	07/23/12 12:25		
Surrogates								
n-Pentacosane (S)	231	%.	30-126	2	07/20/12 12:55	07/23/12 12:25	629-99-2	2d
8015 Gasoline Range Organics	Analytical Method: EPA 8015 Mod Pur							
Gasoline Range Organics	ND	mg/kg	1.1	1		07/21/12 01:35		
TPH (C06-C10)	ND	mg/kg	1.1	1		07/21/12 01:35		
TPH (C06-C12)	ND	mg/kg	1.1	1		07/21/12 01:35		
Surrogates								
4-Bromofluorobenzene (S)	83	%.	30-163	1		07/21/12 01:35	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.1**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B610 S-1 **Lab ID: 5066363010** Collected: 07/18/12 12:39 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	12672-29-6	
PCB-1254 (Aroclor 1254)	**1400**	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	623	5	07/20/12 12:55	07/23/12 19:14	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	60	%.	32-105	5	07/20/12 12:55	07/23/12 19:14	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.7**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B611 S-2 **Lab ID: 5066363011** Collected: 07/18/12 11:51 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	**232**	mg/kg	47.1	2	07/20/12 12:55	07/23/12 12:31		
TPH (C10-C20)	**140**	mg/kg	23.5	2	07/20/12 12:55	07/23/12 12:31		
TPH (C20-C34)	**91.5**	mg/kg	23.5	2	07/20/12 12:55	07/23/12 12:31		
Surrogates								
n-Pentacosane (S)	252	%.	30-126	2	07/20/12 12:55	07/23/12 12:31	629-99-2	2d
8015 Gasoline Range Organics	Analytical Method: EPA 8015 Mod Pur							
Gasoline Range Organics	ND	mg/kg	1.2	1		07/21/12 02:25		
TPH (C06-C10)	ND	mg/kg	1.2	1		07/21/12 02:25		
TPH (C06-C12)	ND	mg/kg	1.2	1		07/21/12 02:25		
Surrogates								
4-Bromofluorobenzene (S)	81	%.	30-163	1		07/21/12 02:25	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.0**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B612 S-2 **Lab ID: 5066363012** Collected: 07/18/12 11:14 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	**367**	mg/kg	114	5	07/20/12 12:55	07/23/12 12:38		
TPH (C10-C20)	**177**	mg/kg	57.0	5	07/20/12 12:55	07/23/12 12:38		
TPH (C20-C34)	**190**	mg/kg	57.0	5	07/20/12 12:55	07/23/12 12:38		
Surrogates								
n-Pentacosane (S)	0	%.	30-126	5	07/20/12 12:55	07/23/12 12:38	629-99-2	S4
8015 Gasoline Range Organics	Analytical Method: EPA 8015 Mod Pur							
Gasoline Range Organics	**12.3**	mg/kg	1.1	1		07/21/12 02:50		
TPH (C06-C10)	**12.4**	mg/kg	1.1	1		07/21/12 02:50		
TPH (C06-C12)	**13.8**	mg/kg	1.1	1		07/21/12 02:50		
Surrogates								
4-Bromofluorobenzene (S)	116	%.	30-163	1		07/21/12 02:50	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.2**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B613 S-2 **Lab ID: 5066363013** Collected: 07/18/12 11:26 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	689	5	07/20/12 12:55	07/23/12 19:20	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	81	%.	32-105	5	07/20/12 12:55	07/23/12 19:20	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**23.8**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B614 S-3 **Lab ID: 5066363014** Collected: 07/18/12 13:20 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	**2870**	mg/kg	516	20	07/20/12 12:55	07/23/12 14:40		
TPH (C10-C20)	ND	mg/kg	258	20	07/20/12 12:55	07/23/12 14:40		
TPH (C20-C34)	**2720**	mg/kg	258	20	07/20/12 12:55	07/23/12 14:40		
Surrogates								
n-Pentacosane (S)	0	%.	30-126	20	07/20/12 12:55	07/23/12 14:40	629-99-2	S4
8015 Gasoline Range Organics	Analytical Method: EPA 8015 Mod Pur							
Gasoline Range Organics	ND	mg/kg	1.3	1		07/21/12 03:15		
TPH (C06-C10)	ND	mg/kg	1.3	1		07/21/12 03:15		
TPH (C06-C12)	ND	mg/kg	1.3	1		07/21/12 03:15		
Surrogates								
4-Bromofluorobenzene (S)	64	%.	30-163	1		07/21/12 03:15	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**22.4**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B615 S-1 **Lab ID: 5066363015** Collected: 07/18/12 13:54 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	**1840**	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	12674-11-2	1d
PCB-1221 (Aroclor 1221)	ND	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**3110**	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	11097-69-1	1d
PCB-1260 (Aroclor 1260)	ND	ug/kg	563	5	07/20/12 12:55	07/23/12 19:26	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	93	%.	32-105	5	07/20/12 12:55	07/23/12 19:26	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**6.8**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B616 S-1 **Lab ID: 5066363016** Collected: 07/18/12 14:29 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	11500	100	07/20/12 12:55	07/23/12 19:32	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	100	07/20/12 12:55	07/23/12 19:32	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**9.1**	%	0.10	1		07/20/12 17:00		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Sample: B617 S-1 **Lab ID: 5066363017** Collected: 07/18/12 15:35 Received: 07/20/12 09:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	11097-69-1	
PCB-1260 (Aroclor 1260)	**3980**	ug/kg	1130	10	07/20/12 12:55	07/23/12 19:38	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	10	07/20/12 12:55	07/23/12 19:38	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**6.9**	%	0.10	1		07/20/12 17:00		

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

QC Batch: GCV/15487 — Analysis Method: EPA 8015 Mod Pur
QC Batch Method: EPA 8015 Mod Pur — Analysis Description: 8015 Solid GCV
Associated Lab Samples: 5066363007, 5066363009, 5066363011, 5066363012, 5066363014

METHOD BLANK: 770123 — Matrix: Solid
Associated Lab Samples: 5066363007, 5066363009, 5066363011, 5066363012, 5066363014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	mg/kg	ND	1.0	07/20/12 20:59	
TPH (C06-C10)	mg/kg	ND	1.0	07/20/12 20:59	
TPH (C06-C12)	mg/kg	ND	1.0	07/20/12 20:59	
4-Bromofluorobenzene (S)	%.	96	30-163	07/20/12 20:59	

LABORATORY CONTROL SAMPLE: 770124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	10	11.1	111	84-132	
TPH (C06-C10)	mg/kg	10	11.3	113	87-123	
TPH (C06-C12)	mg/kg	10	11.3	113	88-132	
4-Bromofluorobenzene (S)	%.			101	30-163	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 770125 — 770126

Parameter	Units	5066421002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Gasoline Range Organics	mg/kg	1.2	10	10	10.2	9.6	90	84	10-133	6	20	
TPH (C06-C10)	mg/kg	1.2	10	10	10.5	9.9	93	87	15-124	6	20	
TPH (C06-C12)	mg/kg	1.3	10	10	10.3	9.7	90	84	12-136	6	20	
4-Bromofluorobenzene (S)	%.						98	97	30-163		20	

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(614)486-5421

Pace Analytical Services, Inc.
7726 Moller Road
Indianapolis, IN 46268
(317)875-5894

QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

QC Batch: OEXT/30211 — Analysis Method: EPA 8015 Mod Ext
QC Batch Method: EPA 3546 — Analysis Description: EPA 8015 TPH Ohio
Associated Lab Samples: 5066363007, 5066363009, 5066363011, 5066363012, 5066363014

METHOD BLANK: 769547 — Matrix: Solid
Associated Lab Samples: 5066363007, 5066363009, 5066363011, 5066363012, 5066363014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	ND	20.0	07/23/12 10:44	
TPH (C10-C20)	mg/kg	ND	10.0	07/23/12 10:44	
TPH (C20-C34)	mg/kg	ND	10.0	07/23/12 10:44	
n-Pentacosane (S)	%.	79	30-126	07/23/12 10:44	

LABORATORY CONTROL SAMPLE: 769548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	83.3	43.2	52	47-107	
n-Pentacosane (S)	%.			73	30-126	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 769549 769550

Parameter	Units	5066363007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Petroleum Hydrocarbons	mg/kg	991	92.8	92.8	1190	1110	214	131	23-115	7	20	P6
n-Pentacosane (S)	%.						0	0	30-126		20	S4

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

QC Batch: OEXT/30212 Analysis Method: EPA 8082
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 5066363001, 5066363002, 5066363003, 5066363004, 5066363005, 5066363006, 5066363008, 5066363010, 5066363013, 5066363015, 5066363016, 5066363017

METHOD BLANK: 769555 Matrix: Solid
Associated Lab Samples: 5066363001, 5066363002, 5066363003, 5066363004, 5066363005, 5066363006, 5066363008, 5066363010, 5066363013, 5066363015, 5066363016, 5066363017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	105	07/23/12 18:19	
PCB-1221 (Aroclor 1221)	ug/kg	ND	105	07/23/12 18:19	
PCB-1232 (Aroclor 1232)	ug/kg	ND	105	07/23/12 18:19	
PCB-1242 (Aroclor 1242)	ug/kg	ND	105	07/23/12 18:19	
PCB-1248 (Aroclor 1248)	ug/kg	ND	105	07/23/12 18:19	
PCB-1254 (Aroclor 1254)	ug/kg	ND	105	07/23/12 18:19	
PCB-1260 (Aroclor 1260)	ug/kg	ND	105	07/23/12 18:19	
Tetrachloro-m-xylene (S)	%.	79	32-105	07/23/12 18:19	

LABORATORY CONTROL SAMPLE: 769556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	500	315	63	49-112	
PCB-1260 (Aroclor 1260)	ug/kg	500	338	68	58-111	
Tetrachloro-m-xylene (S)	%.			64	32-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 769557 769558

Parameter	Units	5066363017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	537	537	899J	1100J	167	206	14-135		20	M0
PCB-1260 (Aroclor 1260)	ug/kg	3980	537	537	2780	4330	-224	64	18-124	43	20	M0,R1
Tetrachloro-m-xylene (S)	%.						0	0	32-105		20	S4

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

QC Batch: PMST/7271 — Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 — Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 5066363001, 5066363002, 5066363003, 5066363004, 5066363005, 5066363006, 5066363007, 5066363008, 5066363009, 5066363010, 5066363011, 5066363012, 5066363013, 5066363014, 5066363015, 5066363016, 5066363017

SAMPLE DUPLICATE: 770037

Parameter	Units	5066363001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.0	18.5	8	5	R1

SAMPLE DUPLICATE: 770038

Parameter	Units	5066387003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%		16.7			R1

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QUALIFIERS

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

1d	Due to the presence of a co-eluting aroclor, the reported result may be biased high.
2d	The surrogate recovery exceeds the upper limit due to significant contribution from the target analyte. RAK 7-23-12
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TSB Metals / 2927.01
Pace Project No.: 5066363

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066363007	**B607 S-1**	EPA 3546	OEXT/30211	EPA 8015 Mod Ext	GCSV/9664
5066363009	**B609 S-2**	EPA 3546	OEXT/30211	EPA 8015 Mod Ext	GCSV/9664
5066363011	**B611 S-2**	EPA 3546	OEXT/30211	EPA 8015 Mod Ext	GCSV/9664
5066363012	**B612 S-2**	EPA 3546	OEXT/30211	EPA 8015 Mod Ext	GCSV/9664
5066363014	**B614 S-3**	EPA 3546	OEXT/30211	EPA 8015 Mod Ext	GCSV/9664
5066363001	**B601 S-4**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363002	**B602 S-3**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363003	**B603 S-3**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363004	**B604 S-3**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363005	**B605 S-2**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363006	**B606 S-2**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363008	**B608 S-2**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363010	**B610 S-1**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363013	**B613 S-2**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363015	**B615 S-1**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363016	**B616 S-1**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363017	**B617 S-1**	EPA 3546	OEXT/30212	EPA 8082	GCSV/9666
5066363007	**B607 S-1**	EPA 8015 Mod Pur	GCV/15487		
5066363009	**B609 S-2**	EPA 8015 Mod Pur	GCV/15487		
5066363011	**B611 S-2**	EPA 8015 Mod Pur	GCV/15487		
5066363012	**B612 S-2**	EPA 8015 Mod Pur	GCV/15487		
5066363014	**B614 S-3**	EPA 8015 Mod Pur	GCV/15487		
5066363001	**B601 S-4**	ASTM D2974-87	PMST/7271		
5066363002	**B602 S-3**	ASTM D2974-87	PMST/7271		
5066363003	**B603 S-3**	ASTM D2974-87	PMST/7271		
5066363004	**B604 S-3**	ASTM D2974-87	PMST/7271		
5066363005	**B605 S-2**	ASTM D2974-87	PMST/7271		
5066363006	**B606 S-2**	ASTM D2974-87	PMST/7271		
5066363007	**B607 S-1**	ASTM D2974-87	PMST/7271		
5066363008	**B608 S-2**	ASTM D2974-87	PMST/7271		
5066363009	**B609 S-2**	ASTM D2974-87	PMST/7271		
5066363010	**B610 S-1**	ASTM D2974-87	PMST/7271		
5066363011	**B611 S-2**	ASTM D2974-87	PMST/7271		
5066363012	**B612 S-2**	ASTM D2974-87	PMST/7271		
5066363013	**B613 S-2**	ASTM D2974-87	PMST/7271		
5066363014	**B614 S-3**	ASTM D2974-87	PMST/7271		
5066363015	**B615 S-1**	ASTM D2974-87	PMST/7271		
5066363016	**B616 S-1**	ASTM D2974-87	PMST/7271		
5066363017	**B617 S-1**	ASTM D2974-87	PMST/7271		

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✓ TMS

Page: 1 of 4

1574909

Section A Required Client Information:

Company: Sanborn Head + Associates
Address: 3770 Embassy Pkwy Suite 10, Fairlawn OH 44333
Email To: pgallagher@sanbornhead.com
Phone: 330 668 6506 Fax: 330 668 6586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To: pgallagher@sanbornhead.com
Copy To: —
Purchase Order No.:
Project Name: TSB Metals
Project Number: 2927.01

Section C Invoice Information:

Attention: Paul Gallagher
Company Name: — Same —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER DSEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: PCBs	TPH (DRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B601 S-4	SL	G			7/18/12	0915		1	X								X				001
2	B601 S-6	SL	G			7/18/12	0915		1	X								X				Archive
3	B602 S-3	SL	G			7/18/12	0924		1	X								X				002
4	B602 S-4	SL	G			7/18/12	0924		1	X								X				Archive
5	B602 S-6	SL	G			7/18/12	0924		1	X								X				Archive
6	B603 S-3	SL	G			7/18/12	1447		1	X								X				003
7	B603 S-6	SL	G			7/18/12	1447		1	X								X				Archive
8	B604 S-3	SL	G			7/18/12	0948		1	X								X				004
9	B604 S-4	SL	G			7/18/12	0948		1	X								X				Archive
10	B604 S-6	SL	G			7/18/12	0948		1	X								X				Archive
11	B605 S-2	SL	G			7/17/12	1337		1	X								X				005
12	B605 S-3	SL	G			7/17/12	1340		1	X								X				Archive

5066363

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Samples marked 'Archive'	Matthew Kemp (Sanborn Head)	7/19/12	1745	[illegible]	7/19/12	1745				
hold pending approval	[illegible]	7/19/12	1890	FED EX						
from Paul Gallagher.				James Jones	7/20	1031	33	0.4		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW L. KEMP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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1574910

Section A Required Client Information:

Company: Sanborn Head + Associates
Address: 3770 Embassy Pkwy Ste 18
Fairlawn OH 44333
Email To: pgallagher@sanbornhead.com
Phone: 3306686506 Fax: 3306686586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To: pgallagher@sanbornhead.com
Copy To:
Purchase Order No.:
Project Name: TSB Metals
Project Number: 2027.01

Section C Invoice Information:

Attention: Paul Gallagher
Company Name: same
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	PCBs	TPH (DRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B606 S-2	SL	G			7/18/12	1014		1	X									X				006
2	B606 S-3	SL	G			7/18/12	1014		1	X									X				Archive
3	B607 S-1	SL	G			7/18/12	1039		2	X										X	X		007
4	B607 S-4	SL	G			7/18/12	1430		2	X									X				Archive
5	B608 S-2	SL	G			7/18/12	1423		2	X									X				008
6	B609 S-2	SL	G			7/18/12	1504		2	X										X	X		009
7	B609 S-4	SL	G			7/18/12	1510		2	X										X	X		Archive
8	B610 S-1	SL	G			7/18/12	1239		1	X									X				010
9	B610 S-3	SL	G			7/18/12	1239		1	X										X	X		Archive
10	B611 S-2	SL	G			7/18/12	1157		2	X										X	X		011
11	B611 S-5	SL	G			7/18/12	1157		2	X										X	X		Archive
12	B611 S-6	SL	G			7/18/12	1157		2	X										X	X		Archive

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Samples marked 'Archive' hold pending approval from Paul Gallagher	Matthew Kemp (Sanborn Head)	7/19/12	1745		7/19/12	1745				
		7/19/12	1830	FED EX						
				James Jones	7/20	1051	3.3	0.4		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW L Kemp

SIGNATURE of SAMPLER: Matthew Kemp DATE Signed (MM/DD/YY): 7/19/12

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1574911

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Sanborn Head & Associates	Report To:	Attention:
Address: 3770 Embassy Pkwy Ste 110 Fairlawn OH 44333	Copy To:	Company Name:
		Address:
Email To: pgallagher@sanbornhead.com	Purchase Order No.:	Pace Quote Reference:
Phone: 3306666506 Fax: 3306686586	Project Name:	Pace Project Manager:
Requested Due Date/TAT: 2 Day	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	PCBs	PPH (DRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B612 S-2	SL	G			7/18/12	1114		1	X										X	X		012
2	B612 S-4	SL	G			7/18/12	1114		1	X										X	X		Archive –
3	B613 S-2	SL	G			7/18/12	1126		1	X									X				013
4	B613 S-4	SL	G			7/18/12	1126		1	X									X				Archive –
5	B614 S-3	SL	G			7/18/12	1320		2	X										X	X		014
6	B614 S-7	SL	G			7/18/12	1320		2	X										X	X		Archive –
7	B615 S-1	SL	G			7/18/12	1354		1	X									X				015
8	B615 S-3	SL	G			7/18/12	1354		1	X									X				Archive –
9	B616 S-1	SL	G			7/18/12	1429		1	X									X				016
10	B616 S-3	SL	G			7/18/12	1429		1	X									X				Archive –
11	B617 S-1	SL	G			7/17/12	1535		2	X									X				017
12	B617 S-3	SL	G			7/17/12	1542		2	X									X				Archive –

5066363

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Samples marked (Archive)	Matthew Skeep (Sanborn Head)	7/19/12	1745	[signature]	7/19/12	1745				
hold pending approval	[signature]	7/19/12	1830	FED EX						
from Paul Gallagher.				James Jones	7/20	1051	3.3	0.4		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW LKEMP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevent fields must be completed accurately.

Page: 4 of 4

1574912

Section A Required Client Information:

Company: Sanborn Head + Associates
Address: 3770 Embassy Pkwy Ste 16
Fairlawn OH 44333
Email To: pgallagher@sanbornhead.com
Phone: 330 666 6506 Fax: 330 666 6586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To: pgallagher@sanbornhead.com
Copy To:
Purchase Order No.:
Project Name: TSB Metals
Project Number: 2927.01

Section C Invoice Information:

Attention: Paul Gallagher
Company Name: — same —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	PCBs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B610 S-2	SL	G			7/18/12	1239		1	X									X		Archive —
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

5066363

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Samples marked 'Archive'	Matthew Kemp (Sanborn Head)	7/19/12	1745	[signature]	7/19/12	1745				
please hold pending approval	[signature]	7/19/12	1830	FED EX						
from Paul Gallagher				James Jones	7/20	1051	3.3	0.4		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW KEMP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Sample Condition Upon Receipt

Pace Analytical

Client Name: Sunborn Project # 5066363

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/ Time 5035A kits placed in freezer _____

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 1 2 3 4 6 A B C D E Type of Ice: ☑ Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) 3.3, 0.4 Ice Visible in Sample Containers: ☐ yes ☑ no

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 7-20-12 JJ

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	5.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	6.
Containers Intact:	☑Yes ☐No ☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☑Yes ☐No ☐N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☐Yes ☐No ☑N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
Headspace in VOA Vials (>6mm)	☐Yes ☑No ☐N/A	10.
Trip Blank Present:	☑Yes ☐No ☐N/A	11.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Project Manager Review		
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	12.
Sufficient Volume:	☑Yes ☐No ☐N/A	13.
Correct Containers Used:	☑Yes ☐No ☐N/A	14.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: K. Jones **Date:** 7-20-12

Form F-IN-Q290-rev.04, 28Apr2011

Sample Container Count

CLIENT: Sanborn

COC PAGE 1 of 1

COC ID#

Project # 5066363

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Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			/													
2			/													
3			/													
4			/													
5			/													
6			/													
7			/													
8			/													
9			/													
10			/													
11			/													
12			/													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Sample Container Count

CLIENT: Sunborn

COC PAGE 2 of 4

COC ID#

Project # 5066363

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Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2			1													
3			2													
4			2													
5			2													
6			2													
7			2													
8			1													
9			1													
10			2													
11			2													
12			2													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

CLIENT: Sunborn

COC PAGE 3 of 4

COC ID#

Sample Container Count

Pace Analytical
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Project # 5066363

Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2			1													
3			1													
4			1													
5			2													
6			2													
7			1													
8			1													
9			1													
10			1													
11			2													
12			2													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Sample Container Count

CLIENT: Sunborn

COC PAGE 4 of 4

COC ID#

Project # 5066363

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Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2	6															
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

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(317)875-5894

July 31, 2012

Mr. Paul Gallagher
Sanborn Head & Associates
3770 Embassy Pkwy
Ste 110
Akron, OH 44333

RE: Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Dear Mr. Gallagher:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kelly M Jones

Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Louisiana/NELAC Certification #: 04076
Ohio VAP: CL0065
Pennsylvania: 68-04991
West Virginia Certification #: 330

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SAMPLE SUMMARY

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066381011	**B610 S-3**	Solid	07/18/12 12:39	07/20/12 10:51
5066381017	**B615 S-3**	Solid	07/18/12 13:54	07/20/12 10:51
5066381019	**B617 S-3**	Solid	07/17/12 15:42	07/20/12 10:51

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SAMPLE ANALYTE COUNT

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066381011	**B610 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066381017	**B615 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066381019	**B617 S-3**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Sample: B610 S-3 **Lab ID: 5066381011** Collected: 07/18/12 12:39 Received: 07/20/12 10:51 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**248**	ug/kg	44.7	1	07/25/12 10:00	07/25/12 19:05	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	67	%.	32-105	1	07/25/12 10:00	07/25/12 19:05	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**21.7**	%	0.10	1		07/25/12 17:35		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Sample: B615 S-3 **Lab ID: 5066381017** Collected: 07/18/12 13:54 Received: 07/20/12 10:51 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	**1930**	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	12674-11-2	1d
PCB-1221 (Aroclor 1221)	ND	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**3540**	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	11097-69-1	1d
PCB-1260 (Aroclor 1260)	ND	ug/kg	757	20	07/25/12 10:00	07/26/12 12:09	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	20	07/25/12 10:00	07/26/12 12:09	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**7.5**	%	0.10	1		07/25/12 17:35		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Sample: B617 S-3 **Lab ID: 5066381019** Collected: 07/17/12 15:42 Received: 07/20/12 10:51 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**4300**	ug/kg	1900	50	07/25/12 10:00	07/26/12 12:15	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	50	07/25/12 10:00	07/26/12 12:15	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**7.7**	%	0.10	1		07/25/12 17:35		

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Pace Analytical Services, Inc.
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Columbus, OH 43215
(614)486-5421

Pace Analytical Services, Inc.
7726 Moller Road
Indianapolis, IN 46268
(317)875-5894

QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

QC Batch: OEXT/30239 Analysis Method: EPA 8082
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 5066381011, 5066381017, 5066381019

METHOD BLANK: 771386 Matrix: Solid
Associated Lab Samples: 5066381011, 5066381017, 5066381019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1221 (Aroclor 1221)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1232 (Aroclor 1232)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1242 (Aroclor 1242)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1248 (Aroclor 1248)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1254 (Aroclor 1254)	ug/kg	ND	35.0	07/25/12 18:53	
PCB-1260 (Aroclor 1260)	ug/kg	ND	35.0	07/25/12 18:53	
Tetrachloro-m-xylene (S)	%.	80	32-105	07/25/12 18:53	

LABORATORY CONTROL SAMPLE: 771387

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	109	66	49-112	
PCB-1260 (Aroclor 1260)	ug/kg	167	98.3	59	58-111	
Tetrachloro-m-xylene (S)	%.			74	32-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 771388 771389

Parameter	Units	5066525002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	203	203	184	205	91	101	14-135	11	20	
PCB-1260 (Aroclor 1260)	ug/kg	ND	203	203	147	138	72	68	18-124	6	20	
Tetrachloro-m-xylene (S)	%.						64	72	32-105		20	

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

QC Batch: PMST/7284 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 5066381011, 5066381017, 5066381019

SAMPLE DUPLICATE: 771835

Parameter	Units	5066381011 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.7	23.4	8	5	R1

SAMPLE DUPLICATE: 771836

Parameter	Units	5066474003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.7	11.8	.5	5	

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(317)875-5894

QUALIFIERS

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

1d	Due to the presence of a co-eluting aroclor, the reported result may be biased high.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TSB Metals / 2927.01
Pace Project No.: 5066381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066381011	**B610 S-3**	EPA 3546	OEXT/30239	EPA 8082	GCSV/9680
5066381017	**B615 S-3**	EPA 3546	OEXT/30239	EPA 8082	GCSV/9680
5066381019	**B617 S-3**	EPA 3546	OEXT/30239	EPA 8082	GCSV/9680
5066381011	**B610 S-3**	ASTM D2974-87	PMST/7284		
5066381017	**B615 S-3**	ASTM D2974-87	PMST/7284		
5066381019	**B617 S-3**	ASTM D2974-87	PMST/7284		

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✓ TMS

Page: 1 of 4

1574909

Section A Required Client Information:

Company: Sanborn Head & Associates
Address: 3770 Embassy Pkwy Suite 10, Fairlawn OH 44333
Email To: pgallagher@sanbornhead.com
Phone: 330 668 6506 Fax: 330 668 6586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To: p gallagher@sanbornhead.com
Copy To: —
Purchase Order No.:
Project Name: TSB Metals
Project Number: 2927.01

Section C Invoice Information:

Attention: Paul Gallagher
Company Name: — Same —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER DSGPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	PCBs	TPH (DRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 5066381
1	B601 S-4	SL	G			7/18/12	0915		1	X									X				—
2	B601 S-6	SL	G			7/18/12	0915		1	X									X				Archive 001
3	B602 S-3	SL	G			7/18/12	0924		1	X									X				—
4	B602 S-4	SL	G			7/18/12	0924		1	X									X				Archive 002
5	B602 S-6	SL	G			7/18/12	0924		1	X									X				Archive 003
6	B603 S-3	SL	G			7/18/12	1447		1	X									X				—
7	B603 S-6	SL	G			7/18/12	1447		1	X									X				Archive 004
8	B604 S-3	SL	G			7/18/12	0948		1	X									X				—
9	B604 S-4	SL	G			7/18/12	0948		1	X									X				Archive 005
10	B604 S-6	SL	G			7/18/12	0948		1	X									X				Archive 006
11	B605 S-2	SL	G			7/18/12	1337		1	X									X				—
12	B605 S-3	SL	G			7/18/12	1340		1	X									X				Archive 007

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Samples marked 'Archive'	Matthew Kemp (Sanborn Head)	7/19/12	1745	[illegible]	7/19/12	1745				
hold pending approval	[illegible]	7/19/12	1850	[illegible]						
from Paul Gallagher.				James Jones	7/20	1051	3.3	0.4		

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW L. KEMP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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1574910

Section A Required Client Information:

Company:	Sanborn Head + Associates
Address:	3770 Embassy Pkwy Ste 112 Fairlawn OH 44333
Email To:	pgallagher@sanbornhead.com
Phone:	3306686506
Fax:	3306686586
Requested Due Date/TAT:	2 Day

Section B Required Project Information:

Report To:	pgallagher@sanbornhead.com
Copy To:	
Purchase Order No.:	
Project Name:	TSB Metals
Project Number:	2927.01

Section C Invoice Information:

Attention:	Paul Gallagher
Company Name:	same
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	PCBs	TPH (DRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B606 S-2	SL	G			7/18/12	1014		1	X									X				—
2	B606 S-3	SL	G			7/18/12	1014		1	X									X				Archive 008
3	B607 S-1	SL	G			7/18/12	1039		2	X										X	X		—
4	B608 S-4	SL	G			7/18/12	1430		2	X									X				Archive 009
5	B608 S-2	SL	G			7/17/12	1423		2	X									X				—
6	B609 S-2	SL	G			7/17/12	1504		2	X										X	X		—
7	B609 S-4	SL	G			7/17/12	1510		2	X										X	X		Archive 010
8	B610 S-1	SL	G			7/18/12	1239		1	X									X				—
9	B610 S-3	SL	G			7/18/12	1239		1	X										X	X		Archive 011
10	B611 S-2	SL	G			7/18/12	1157		2	X										X	X		—
11	B611 S-5	SL	G			7/18/12	1151		2	X										X	X		Archive 012
12	B611 S-6	SL	G			7/18/12	1151		2	X										X	X		Archive 013

5066381

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Samples marked 'Archive'	Matthew Stag (Sanborn Head)	7/19/12	1745	[signature]	7/19/12	1745				
hold pending approval	[signature]	7/19/12	1830	FED EX						
from Paul Gallagher				James Jones	7/20	1251	3.3	0.4		

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW L Kemp

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 7/19/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 3 of 4

1574911

Section A Required Client Information:

Company: Sanborn Head & Associates
Address: 3770 Embassy Pkwy Ste 110
Fairlawn OH 44333
Email To: rgallagher@sanbornhead.com
Phone: 330 666 8506 Fax: 330 666 8586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	RCBS	PPH (PRO)	TPH (GRO)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B612 S-2	SL	G			7/18/12	1124		1	X									X	X			—
2	B612 S-4	SL	G			7/18/12	1114		1	X										X	X		Archive 014
3	B613 S-2	SL	G			7/18/12	1126		1	X									X				—
4	B613 S-4	SL	G			7/18/12	1126		1	X									X				Archive 015
5	B614 S-3	SL	G			7/18/12	1320		2	X										X	X		—
6	B614 S-7	SL	G			7/18/12	1320		2	X										X	X		Archive 016
7	B615 S-1	SL	G			7/18/12	1354		1	X									X				—
8	B615 S-3	SL	G			7/18/12	1354		1	X									X				Archive 017
9	B616 S-1	SL	G			7/18/12	1429		1	X									X				—
10	B616 S-3	SL	G			7/18/12	1429		1	X									X				Archive 018
11	B617 S-1	SL	G			7/18/12	1535		2	X									X				—
12	B617 S-3	SL	G			7/18/12	1542		2	X									X				Archive 019

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Samples marked (Archive) hold pending approval from Paul Gallagher.	[signature] (Sanborn Head)	7/19/12	1745	[signature]	7/19/12	1745
		7/19/12	1830	FED EX		
				James Jones	7/20	1051

SAMPLE CONDITIONS	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	33	0.4		

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: MATTHEW LICENE
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

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F-ALL-Q-020rev.07, 15-May-2007

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1574912

Section A Required Client Information:

Company: Sanborn Head + Associates
Address: 3770 Embassy Pkwy Ste 16
Fairlawn OH 44333
Email To: pgallagher@sanbornhead.com
Phone: 330 668 6506 Fax: 330 668 6586
Requested Due Date/TAT: 2 Day

Section B Required Project Information:

Report To: pgallagher@sanbornhead.com
Copy To:
Purchase Order No.:
Project Name: TSB Metals
Project Number: 2927.07

Section C Invoice Information:

Attention: Paul Gallagher
Company Name: — same —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Analysis Test: RLBS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: RLBS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B610 S-2	SL	G			7/19/12	1239		1	X								X		Archive 020
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Samples marked 'Archive'	Matthew Klemp (Sanborn Head)	7/19/12	1745		7/19/12	1745				
please hold pending approval		7/19/12	1830	FED EX						
from Paul Gallagher.				James Jones	7/20	1051	33	ok		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MATTHEW KLEMP

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Sample Condition Upon Receipt

Pace Analytical

Client Name: Sunbom

Project # 50646381

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/Time 5035A kits placed in freezer

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 1 2 3 4 6 A B C D E

Type of Ice: ☑ Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) 33, 0.4

Ice Visible in Sample Containers: ☐ yes ☑ no

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 7-20-12 JJ

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	5.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	6.
Containers Intact:	☑Yes ☐No ☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☑Yes ☐No ☐N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☐Yes ☐No ☑N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
Headspace in VOA Vials (>6mm)	☐Yes ☑No ☐N/A	10.
Trip Blank Present:	☑Yes ☐No ☐N/A	11.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Project Manager Review		
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	12.
Sufficient Volume:	☑Yes ☐No ☐N/A	13.
Correct Containers Used:	☑Yes ☐No ☐N/A	14.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: [signature] **Date:** 7-20-12

Form F-IN-Q290-rev.04, 28Apr2011

Sample Container Count

CLIENT: Sanborn

COC PAGE 1 of 1

COC ID#

Project # 5066381

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Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			/													
2			/													
3			/													
4			/													
5			/													
6			/													
7			/													
8			/													
9			/													
10			/													
11			/													
12			/													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Sample Container Count

CLIENT: Sanborn

COC PAGE 2 of 4

COC ID#

Project # 5066381

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Sample Line Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2			1													
3			2													
4			2													
5			2													
6			2													
7			2													
8			1													
9			1													
10			2													
11			2													
12			2													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Sample Container Count

CLIENT: Sunborn

COC PAGE 3 of 4

COC ID#

Project # 5066381

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Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2			1													
3			1													
4			1													
5			2													
6			2													
7			1													
8			1													
9			1													
10			1													
11			2													
12			2													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

CLIENT: Sunborn

COC PAGE 4 of 4

COC ID#

Sample Container Count

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Project # 5066381

Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2	6															
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

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7726 Moller Road
Indianapolis, IN 46268
(317)875-5894

August 01, 2012

Mr. Paul Gallagher
Sanborn Head & Associates
3770 Embassy Pkwy
Ste 110
Akron, OH 44333

RE: Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Dear Mr. Gallagher:
Enclosed are the analytical results for sample(s) received by the laboratory on July 26, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kelly M Jones

Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Louisiana/NELAC Certification #: 04076
Ohio VAP: CL0065
Pennsylvania: 68-04991
West Virginia Certification #: 330

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SAMPLE SUMMARY

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066628001	**B601 S-2**	Solid	07/18/12 09:15	07/26/12 10:44
5066628002	**B601 S-3**	Solid	07/18/12 09:15	07/26/12 10:44
5066628003	**B603 S-2**	Solid	07/18/12 08:00	07/26/12 10:44
5066628004	**B604 S-2**	Solid	07/18/12 08:00	07/26/12 10:44
5066628005	**B608 S-3**	Solid	07/17/12 14:26	07/26/12 10:44
5066628006	**B614 S-4**	Solid	07/18/12 08:00	07/26/12 10:44
5066628007	**B615 S-2**	Solid	07/18/12 08:00	07/26/12 10:44
5066628008	**B615 S-4**	Solid	07/18/12 08:00	07/26/12 10:44
5066628009	**B617 S-2**	Solid	07/17/12 15:38	07/26/12 10:44
5066628010	**B617 S-4**	Solid	07/17/12 15:45	07/26/12 10:44
5066628011	**B602 S-2**	Solid	07/18/12 08:00	07/26/12 10:44
5066628012	**B610 S-4**	Solid	07/18/12 08:00	07/26/12 10:44

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SAMPLE ANALYTE COUNT

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066628001	**B601 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066628003	**B603 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066628004	**B604 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066628011	**B602 S-2**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Sample: B601 S-2 **Lab ID: 5066628001** Collected: 07/18/12 09:15 Received: 07/26/12 10:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	12672-29-6	
PCB-1254 (Aroclor 1254)	**1860**	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1170	10	07/30/12 18:10	07/31/12 18:38	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	10	07/30/12 18:10	07/31/12 18:38	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.5**	%	0.10	1		07/30/12 18:56		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Sample: B603 S-2 **Lab ID: 5066628003** Collected: 07/18/12 08:00 Received: 07/26/12 10:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**1160**	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1130	10	07/30/12 18:10	07/31/12 18:26	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	10	07/30/12 18:10	07/31/12 18:26	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**11.6**	%	0.10	1		07/30/12 18:56		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Sample: B604 S-2 **Lab ID: 5066628004** Collected: 07/18/12 08:00 Received: 07/26/12 10:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	594	5	07/30/12 18:10	07/31/12 18:32	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	47	%.	32-105	5	07/30/12 18:10	07/31/12 18:32	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**15.9**	%	0.10	1		07/30/12 18:57		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Sample: B602 S-2 **Lab ID: 5066628011** Collected: 07/18/12 08:00 Received: 07/26/12 10:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	582	5	07/30/12 18:10	07/31/12 18:56	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	49	%.	32-105	5	07/30/12 18:10	07/31/12 18:56	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.0**	%	0.10	1		07/30/12 18:57		

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

QC Batch: OEXT/30295 — Analysis Method: EPA 8082
QC Batch Method: EPA 3546 — Analysis Description: 8082 GCS PCB
Associated Lab Samples: 5066628001, 5066628003, 5066628004, 5066628011

METHOD BLANK: 773755 — Matrix: Solid
Associated Lab Samples: 5066628001, 5066628003, 5066628004, 5066628011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1221 (Aroclor 1221)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1232 (Aroclor 1232)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1242 (Aroclor 1242)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1248 (Aroclor 1248)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1254 (Aroclor 1254)	ug/kg	ND	35.0	07/31/12 13:47	
PCB-1260 (Aroclor 1260)	ug/kg	ND	35.0	07/31/12 13:47	
Tetrachloro-m-xylene (S)	%.	60	32-105	07/31/12 13:47	

LABORATORY CONTROL SAMPLE: 773756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	102	61	49-112	
PCB-1260 (Aroclor 1260)	ug/kg	167	101	60	58-111	
Tetrachloro-m-xylene (S)	%.			67	32-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773757 773758

Parameter	Units	5066628001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	195	195	1150	1470	310	473	14-135	24	20	M3,R1
PCB-1260 (Aroclor 1260)	ug/kg	ND	195	195	1470	1050	754	540	18-124	33	20	M3,R1
Tetrachloro-m-xylene (S)	%.						0	0	32-105		20	S4

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Indianapolis, IN 46268
(317)875-5894

QUALITY CONTROL DATA

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

QC Batch: PMST/7299 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 5066628001, 5066628003, 5066628004, 5066628011

SAMPLE DUPLICATE: 773822

Parameter	Units	5066628001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.5	14.0	3	5	

SAMPLE DUPLICATE: 773823

Parameter	Units	5066711014 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	25.3	21.9	14	5	R1

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QUALIFIERS

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TSB Metals / 2927.01
Pace Project No.: 5066628

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066628001	**B601 S-2**	EPA 3546	OEXT/30295	EPA 8082	GCSV/9703
5066628003	**B603 S-2**	EPA 3546	OEXT/30295	EPA 8082	GCSV/9703
5066628004	**B604 S-2**	EPA 3546	OEXT/30295	EPA 8082	GCSV/9703
5066628011	**B602 S-2**	EPA 3546	OEXT/30295	EPA 8082	GCSV/9703
5066628001	**B601 S-2**	ASTM D2974-87	PMST/7299		
5066628003	**B603 S-2**	ASTM D2974-87	PMST/7299		
5066628004	**B604 S-2**	ASTM D2974-87	PMST/7299		
5066628011	**B602 S-2**	ASTM D2974-87	PMST/7299		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1574914

Section A Required Client Information:

Company:	Sanborn Head
Address:	3770 Embassy Pkway Suite 110
Email To:	pgallagher@sanbornhead.com
Phone:	330 668 6506
Fax:	
Requested Due Date/TAT:	48 hour

Section B Required Project Information:

Report To:	paul gallagher
Copy To:	
Purchase Order No.:	
Project Name:	TSB metals
Project Number:	2927.01

Section C Invoice Information:

Attention:	Paul Gallagher
Company Name:	— Same —
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED ~~COMPOSITE START~~ Grab DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	PCBs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B601 S-2 -	SL	G	7/18	0915				1	X									X		archive all 001
2	B601 S-3			7/18	0915				1										X		002
3	B603 S-2 -			7/18					1										X		003
4	B604 S-2 -			7/18					1										X		004
5	B608 S-3			7/17	1426				2										X		005
6	B614 S-4			7/18					1										X		006
7	B615 S-2			7/18					1										X		007
8	B615 S-4			7/18					1										X		008
9	B617 S-2			7/17	1538				2										X		009
10	B617 S-4			7/17	1545				2										X		010
11	B602 S-2 -			7/18					1										X		011
12	B-610 S-4	X	X	7/18					1	X									X		012

5066628

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Please return unused Samples.	Daniel J Schwarz SHA	7/25/12	1500	Fed Ex	7/25/12	1500				
Run 601, 602, 603, 604 S-2				[signature] / Pace	7/26/12	1044	17.9	Y	Y	Y
per Greg 7/30/12 2:40 pm										

ORIGINAL

WI / Fedex

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matthew Kemp

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/19/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Sample Condition Upon Receipt

Pace Analytical

Client Name: Sandborn Head Project # 5066628

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8995939119 16

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/Time 5035A kits placed in freezer

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziplock

Thermometer Used 1 2 3 4 6 A B C D E Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) 17.9 avg. °C Ice Visible in Sample Containers: ☐ yes ☑ no

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KG 7/26/12

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	5.
Rush Turn Around Time Requested:	☑Yes	☐No	☐N/A	6. 48 hr.
Containers Intact:	☑Yes	☐No	☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis KG 7/26/12	☑Yes	☑No	☐N/A	8. B 614 S-4 2 Samples / 1 sample on CoC
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☐Yes	☑No	☐N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
Headspace in VOA Vials (>6mm)	☐Yes	☐No	☑N/A	10.
Trip Blank Present:	☐Yes	☐No	☑N/A	11.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Project Manager Review				
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	12.
Sufficient Volume:	☑Yes	☐No	☐N/A	13.
Correct Containers Used:	☑Yes	☐No	☐N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Greg Sanborn Head Date/Time: 7/30/12 2:44pm

Comments/ Resolution:

Ice in ziplock bags on top of samples
Run B601 S-2, B602 S-2, B603 S2, B604 S-2
2day - 001 011 003 004
may Head added sample for delivery tomorrow - can batch all samples together for prep/analysis for 2day results since 2 business hours

Project Manager Review: KG Date: 7-26-12

Form F-IN-Q290-rev.04, 28Apr2011

CLIENT: Sandborn Hean

COC PAGE 1 of 1

COC ID#

Sample Container Count

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Project # 5066628

Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	2oz jar		Comments
1			1													
2			1													
3			1													
4			1													
5			2													
6														2		
7			1													
8			1													
9			2													
10			2													
11			1													
12			1													

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

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(317)875-5894

August 02, 2012

Mr. Paul Gallagher
Sanborn Head & Associates
3770 Embassy Pkwy
Ste 110
Akron, OH 44333

RE: Project: TSB Metals
Pace Project No.: 5066745

Dear Mr. Gallagher:
Enclosed are the analytical results for sample(s) received by the laboratory on July 28, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kelly M Jones

Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: TSB Metals
Pace Project No.: 5066745

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Louisiana/NELAC Certification #: 04076
Ohio VAP Certification #: CL0065
Pennsylvania Certification #: 68-04991
West Virginia Certification #: 330

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SAMPLE SUMMARY

Project: TSB Metals
Pace Project No.: 5066745

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066745001	**B615 S-6**	Solid	07/18/12 08:00	07/28/12 11:33
5066745002	**B619 S-1**	Solid	07/18/12 08:00	07/28/12 11:33
5066745003	**B619 S-3**	Solid	07/18/12 08:00	07/28/12 11:33
5066745004	**B619 S-5**	Solid	07/18/12 08:00	07/28/12 11:33

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SAMPLE ANALYTE COUNT

Project: TSB Metals
Pace Project No.: 5066745

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066745001	**B615 S-6**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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ANALYTICAL RESULTS

Project: TSB Metals
Pace Project No.: 5066745

Sample: B615 S-6 **Lab ID: 5066745001** Collected: 07/18/12 08:00 Received: 07/28/12 11:33 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	125	1	07/31/12 11:00	08/01/12 13:44	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	61	%.	32-105	1	07/31/12 11:00	08/01/12 13:44	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.7**	%	0.10	1		07/30/12 18:58		

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QUALITY CONTROL DATA

Project: TSB Metals
Pace Project No.: 5066745

QC Batch: OEXT/30299 | Analysis Method: EPA 8082
QC Batch Method: EPA 3546 | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 5066745001

METHOD BLANK: 773864 | Matrix: Solid
Associated Lab Samples: 5066745001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1221 (Aroclor 1221)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1232 (Aroclor 1232)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1242 (Aroclor 1242)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1248 (Aroclor 1248)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1254 (Aroclor 1254)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1260 (Aroclor 1260)	ug/kg	ND	35.0	08/01/12 13:32	
Tetrachloro-m-xylene (S)	%.	82	32-105	08/01/12 13:32	

LABORATORY CONTROL SAMPLE: 773865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	114	68	49-112	
PCB-1260 (Aroclor 1260)	ug/kg	167	112	67	58-111	
Tetrachloro-m-xylene (S)	%.			76	32-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773866 773867

Parameter	Units	5066745001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	208	208	398	1530	161	706	14-135	117	20	M3,R1
PCB-1260 (Aroclor 1260)	ug/kg	ND	208	208	238	876	115	422	18-124	115	20	M3,R1
Tetrachloro-m-xylene (S)	%.						50	51	32-105		20	

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QUALITY CONTROL DATA

Project: TSB Metals
Pace Project No.: 5066745

QC Batch: PMST/7299
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 5066745001

SAMPLE DUPLICATE: 773822

Parameter	Units	5066628001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.5	14.0	3	5	

SAMPLE DUPLICATE: 773823

Parameter	Units	5066711014 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	25.3	21.9	14	5	R1

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QUALIFIERS

Project: TSB Metals
Pace Project No.: 5066745

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
R1	RPD value was outside control limits.

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7726 Moller Road
Indianapolis, IN 46268
(317)875-5894

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TSB Metals
Pace Project No.: 5066745

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066745001	**B615 S-6**	EPA 3546	OEXT/30299	EPA 8082	GCSV/9705
5066745001	**B615 S-6**	ASTM D2974-87	PMST/7299		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1574915

Section A Required Client Information:

Company: SANBORN HEAD & ASSOC.
Address: 3770 EMBASSY PARKWAY
FAIRLAWN, OH 44333
Email To: pgallagher@SANBORNHEAD.COM
Phone: 330 668 6506 Fax: 330 668 6586
Requested Due Date/TAT: 48 HOUR

Section B Required Project Information:

Report To: PGALLAGHER@SANBORNHEAD.COM
Copy To: —
Purchase Order No.:
Project Name: TSB METALS
Project Number: 2927.03

Section C Invoice Information:

Attention: PAUL GALLAGHER
Company Name: — SAME —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER USEPA

Site Location STATE: OH

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): 50661745

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): PCBs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B615 S-6 (ARCHIVE)	SL	G			7/18/12	—		1									X		-001
2	B619 S-1 (ARCHIVE)	SL	G			7/18/12	—		2									X		-002
3	B619 S-3 (ARCHIVE)	SL	G			7/18/12	—		2									X		-003
4	B619 S-5 (ARCHIVE)	SL	G			7/18/12	—		2									X		-004
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SAMPLES MARKED ARCHIVE	[signature]	7/27/12	1530	FED EX	7/27/12	1530				
HOLD PENDING APPROVAL				Marcia Bennett / Pace	7/28/12	11:33	3.3C	Y	Y	
FROM SANBORN HEAD										

Fedex w/ice
8995 9391 1905

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: GREGORY BOSILJCK
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 07/27/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Sample Condition Upon Receipt

Pace Analytical

Client Name: Sanborn Head Project # 5064745

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8995 9391 1905

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/Time 5035A kits placed in freezer

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used 1 2 3 4 5 6 A B C D E Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) 3.3°C Ice Visible in Sample Containers: ☐ yes ☑ no

Temp should be above freezing to 6°C

Date and Initials of person examining contents: MB 7/28/12

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes	☐No	☑N/A	5.
Rush Turn Around Time Requested:	☑Yes	☐No	☐N/A	6. 48 hour MB
Containers Intact:	☑Yes	☐No	☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☑Yes	☐No	☐N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☐Yes	☐No	☑N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	10.
Trip Blank Present:	☐Yes	☐No	☑N/A	11.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Project Manager Review				
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	12.
Sufficient Volume:	☑Yes	☐No	☐N/A	13.
Correct Containers Used:	☑Yes	☐No	☐N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Greg - Sanborn Head Date/Time: 7/30/12 2:40pm

Comments/ Resolution:

run B615 5-6 2 day - may send two additional samples tomorrow - will batch with those for 2 day due close of business Thurs.

Project Manager Review: Kenneth Hunt Date: 7/28/12

Form F-IN-Q290-rev.04, 28Apr2011

Sample Container Count

CLIENT: Sanborn Head

COC PAGE 1 of 1
COC ID# 1574915

Project # 50116745

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	2oz		Comments
1			1													
2														2		
3														2		
4														2		
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

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(317)875-5894

August 02, 2012

Mr. Paul Gallagher
Sanborn Head & Associates
3770 Embassy Pkwy
Ste 110
Akron, OH 44333

RE: Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Dear Mr. Gallagher:
Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kelly M Jones

Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Louisiana/NELAC Certification #: 04076
Ohio VAP Certification #: CL0065
Pennsylvania Certification #: 68-04991
West Virginia Certification #: 330

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SAMPLE SUMMARY

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066787002	**B-602 S-1**	Solid	07/18/12 09:24	07/31/12 09:32
5066787004	**B-604 S-1**	Solid	07/18/12 09:48	07/31/12 09:32

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SAMPLE ANALYTE COUNT

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5066787002	**B-602 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I
5066787004	**B-604 S-1**	EPA 8082	DMT	8	PASI-I
		ASTM D2974-87	DAE	1	PASI-I

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Sample: B-602 S-1 **Lab ID: 5066787002** Collected: 07/18/12 09:24 Received: 07/31/12 09:32 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	556	5	07/31/12 11:00	08/01/12 14:08	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	65	%.	32-105	5	07/31/12 11:00	08/01/12 14:08	877-09-8	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.1**	%	0.10	1		07/31/12 17:27		

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ANALYTICAL RESULTS

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Sample: B-604 S-1 **Lab ID: 5066787004** Collected: 07/18/12 09:48 Received: 07/31/12 09:32 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	**3350**	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	12674-11-2	1d
PCB-1221 (Aroclor 1221)	ND	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**5910**	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	11097-69-1	1d
PCB-1260 (Aroclor 1260)	ND	ug/kg	2250	20	07/31/12 11:00	08/01/12 14:20	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	0	%.	32-105	20	07/31/12 11:00	08/01/12 14:20	877-09-8	S4
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**11.1**	%	0.10	1		07/31/12 17:27		

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

QC Batch: OEXT/30299 | Analysis Method: EPA 8082
QC Batch Method: EPA 3546 | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 5066787002, 5066787004

METHOD BLANK: 773864 | Matrix: Solid
Associated Lab Samples: 5066787002, 5066787004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1221 (Aroclor 1221)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1232 (Aroclor 1232)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1242 (Aroclor 1242)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1248 (Aroclor 1248)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1254 (Aroclor 1254)	ug/kg	ND	35.0	08/01/12 13:32	
PCB-1260 (Aroclor 1260)	ug/kg	ND	35.0	08/01/12 13:32	
Tetrachloro-m-xylene (S)	%.	82	32-105	08/01/12 13:32	

LABORATORY CONTROL SAMPLE: 773865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	114	68	49-112	
PCB-1260 (Aroclor 1260)	ug/kg	167	112	67	58-111	
Tetrachloro-m-xylene (S)	%.			76	32-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 773866 773867

Parameter	Units	5066745001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	208	208	398	1530	161	706	14-135	117	20	M3,R1
PCB-1260 (Aroclor 1260)	ug/kg	ND	208	208	238	876	115	422	18-124	115	20	M3,R1
Tetrachloro-m-xylene (S)	%.						50	51	32-105		20	

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QUALITY CONTROL DATA

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

QC Batch: PMST/7300
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 5066787002, 5066787004

SAMPLE DUPLICATE: 774202

Parameter	Units	5066543001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.6	15.3	4	5	

SAMPLE DUPLICATE: 774203

Parameter	Units	5066787004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.1	10.6	4	5	

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QUALIFIERS

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

1d	Due to the presence of a co-eluting aroclor, the reported result may be biased high.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TSB Metals / 2927.03
Pace Project No.: 5066787

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066787002	**B-602 S-1**	EPA 3546	OEXT/30299	EPA 8082	GCSV/9705
5066787004	**B-604 S-1**	EPA 3546	OEXT/30299	EPA 8082	GCSV/9705
5066787002	**B-602 S-1**	ASTM D2974-87	PMST/7300		
5066787004	**B-604 S-1**	ASTM D2974-87	PMST/7300		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1574916

Section A Required Client Information:

Company: SANBORN HEAD & ASSOC.
Address: 3770 EMBASSY PARKWAY
FAIRLAWN, OH 44333
Email To: PGALLAGHER@SANBORNHEAD.COM
Phone: 330668 6506 Fax: 330 668 6586
Requested Due Date/TAT: 48 HOUR

Section B Required Project Information:

Report To: PGALLAGHER@SANBORNHEAD.COM
Copy To: —
Purchase Order No.:
Project Name: TSB METALS
Project Number: 2927.03

Section C Invoice Information:

Attention: PAUL GALLAGHER
Company Name: — SAME —
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER USEPA

Site Location STATE: ____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: PCBs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-601 S-1	SL	G			7/18/12	915		1	X								X		001
2	B-602 S-1	SL	G			7/18/12	924		1	X								X		002
3	B-603 S-1	SL	G			7/18/12	1447		1	X								X		003
4	B-604 S-1	SL	G			7/18/12	948		1	X								X		004
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

5066787

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		7/30/12	1600	FED EX	7/30/12	1000				
				[illegible]	7/31/12	0932	0.9	Y	Y	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Wtfedxdel.

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: GREGORY BOSILJCK
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 07/30/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Sample Condition Upon Receipt

Pace Analytical

Client Name: Sanborn Head & Assoc Project # 5066787

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 899593911890

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Date/ Time 5035A kits placed in freezer _____

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other ice/PLC

Thermometer Used 1 2 3 4 6 A B C D E **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 0.9 c
(Corrected, if applicable)

Ice Visible in Sample Containers: ☐ yes ☑ no

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 7/31/12 CHK

				Comments:
Chain of Custody Present:	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out:	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished:	☑ Yes	☐ No	☐ N/A	3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Short Hold Time Analysis (<72hr):	☐ Yes	☑ No	☐ N/A	5.
Rush Turn Around Time Requested:	☑ Yes	☐ No	☐ N/A	6. 48hr
Containers Intact:	☑ Yes	☐ No	☐ N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☑ Yes	☐ No	☐ N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☐ Yes	☐ No	☑ N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes	☐ No	☑ N/A	
Headspace in VOA Vials (>6mm)	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present:	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Project Manager Review				
Samples Arrived within Hold Time:	☑ Yes	☐ No	☐ N/A	12.
Sufficient Volume:	☑ Yes	☐ No	☐ N/A	13.
Correct Containers Used:	☑ Yes	☐ No	☐ N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 7-31-12

Form F-IN-Q290-rev.04, 28Apr2011

Sample Container Count

Pace Analytical™
www.pacelabs.com

CLIENT: Sanborn Head & Assoc.

COC PAGE 1 of 1
COC ID# 1574916

Project # 5066787

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H			Comments
1			1													
2			1													
3			1													
4			1													
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag