



ENVIRONMENTAL CONSULTANTS

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Mr. Eric Amadi  
Wisconsin Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee, WI 53212

(via Email)

June 20, 2013  
(2095)

**RE: Request for Approval of Emerald Park Landfill Soil Borrow Source Fill Material Use**  
Former Wabash Alloys Facility  
9100 South Fifth Avenue, Oak Creek, Wisconsin 53154  
WDNR BRRTS Activity # 02-41-553761 & # 06-41-560068

Dear Eric:

We are requesting an approval from the Department to use a soil borrow source for fill material at the former Wabash Alloys facility. The soil data is attached from the Emerald Park Landfill clay borrow source in Muskego, Waukesha County, Wisconsin, as shown on Figure 1 (attached). The soil is being excavated for construction of a new cell and is located outside the limits of the current landfill operations. The sample was analyzed for the full list of VOCs and SVOCs (including PAHs), RCRA metals, aluminum, copper, nickel and zinc, and PCBs.

The analytical results demonstrate that the parameters are below non-industrial direct contact and groundwater pathway RCLs, with the exception of arsenic, which is below the WDNR background concentration of 8 mg/kg, and aluminum and nickel, which exceed the groundwater pathway RCL. Based on the data compiled in the *Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements* (Krista A. Stensvold, USGS Publication Scientific Investigations Report 2011-5202), the concentrations of aluminum and nickel detected in the fill source sample are also indicative of background levels. The location of the fill source and the site location are shown on the attached figures excerpted from this publication. The average aluminum and nickel soil concentrations for site-wide data (excluding higher outliers) collected to date are approximately the same as the borrow source concentrations, and confirm the background concentrations from the publication. Furthermore, aluminum is soluble in groundwater only at pH levels less than 5.4, which is unlikely to occur at the Wabash Alloys site. The only organic compound detected was 2-methylnaphthalene at a very low concentration of 0.0222 mg/kg, above a detection limit of 0.0211 mg/kg. It was flagged as an estimated concentration above the limit of detection but below the limit of quantitation.

The modern and historical site land use of the Emerald Park borrow source area indicates the area was previously undeveloped farmland outside the boundaries of the current landfill operations. The location of the fill source is shown on the attached aerial photographs, dating back from 1941 through 2010. For additional information on the landfill property and operations, we suggest contacting Ms. Ann Bekta as she is the Department's Solid Waste contact for the landfill.

We are requesting this approval considering that the property is in the VPLE program and the fact that the site investigation is currently underway. We estimate that 2,000 to 3,000 cubic yards of the fill material will be needed. The fill borrow source will be used to fill smaller pits within building footprint, and is not being used as cap material. Following collection of a soil sample at the base of the pits, we are intending to backfill with this material. Observations of the soil conditions within the pit prior to backfilling will be noted. The borrow source information will be provided in the SI report as well.

Based on the fill source analytical data and the modern and historic land use of the borrow source area, **no additional analytical testing is proposed for the fill source**. Furthermore, the Emerald Park fill source volume is adequate for the project needs at this time and we are currently seeking no other off-site borrow sources.

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Mr. Eric Amadi  
June 20, 2013  
Page 2



Please do not hesitate to contact me at 414.837.3564 should you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Julie A. Zimdars". The signature is fluid and cursive, written in a professional style.

Julie A. Zimdars, PE  
Senior Engineer

Attachments: Figure 1: Fill Source Location  
Table 1 – Borrow Source Analytical Table  
Laboratory Analytical Report – Sample Fill 02  
Distribution of Aluminum and Nickel in Wisconsin Surface Soils  
Emerald Park Landfill - Aerial Photographs 1941-2010

C: Mr. Mike Kellogg, Connell Limited Partnership (email)  
Ms. Kathryn Huibregtse, Environ (email)  
Ms. Margaret Brunette, WDNR-SER (email)

[Correspondence/Agency/Connell-Wabash Borrow Source Notif 130620]



**From:** [Katherine M. Juno](#)  
**To:** [Julie A. Zimdars](#)  
**Subject:** Emerald Park Fill Source  
**Date:** Friday, June 21, 2013 9:08:22 AM

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Julie,

I just interviewed Jay Warzinski, landfill engineer for Emerald Park Landfill. The is what Jay told me about the fill source.

Fill source – historically outside the active area

Virgin material

Zoned agricultural until the landfill was sighted

Landfill started construction in 1993

Soil borings were completed; monitoring wells were installed, and water samples were analyzed for environmental parameters to establish a landfill baseline

The material is used for landfill liner and cover.

In summary, the material is approved by WDNR as landfill liner material because it is natural clay soil

.

Kate

***Kate Juno, PG***

*Natural Resource Technology, Inc.*

*234 W. Florida Street, Fifth Floor*

*Milwaukee, Wisconsin 53204*

***414.837.3570 direct | 262.719.4501 cell***

***414.837.3607 phone | 414.837.3608 fax***

***[kjuno@naturalrt.com](mailto:kjuno@naturalrt.com) \ [www.naturalrt.com](http://www.naturalrt.com) WE HAVE MOVED! Please note the new address and phone numbers!***

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**Figure 1: Fill Source Location**



**Legend**

-  Open Sites (ongoing cleanups)
-  Open Sites (ongoing cleanups) - site boundaries shown
-  Closed Sites (completed cleanups)
-  Closed Sites (completed cleanups) - site boundaries shown
-  County Boundary
-  Railroads
-  County Roads (WDOT)
-  County Trunk Highway
-  State and U.S. Highways (WDOT)
-  State Trunk Highway
-  US Highway
-  Interstate Highways (WDOT)
-  Interstate Highway
-  Local Roads (WDOT)
-  Civil Towns
-  Civil Town
-  24K Open Water
-  24K Rivers and Shorelines
-  Municipalities

0 900 1800 2700 ft.

Map created on Jun 20, 2013

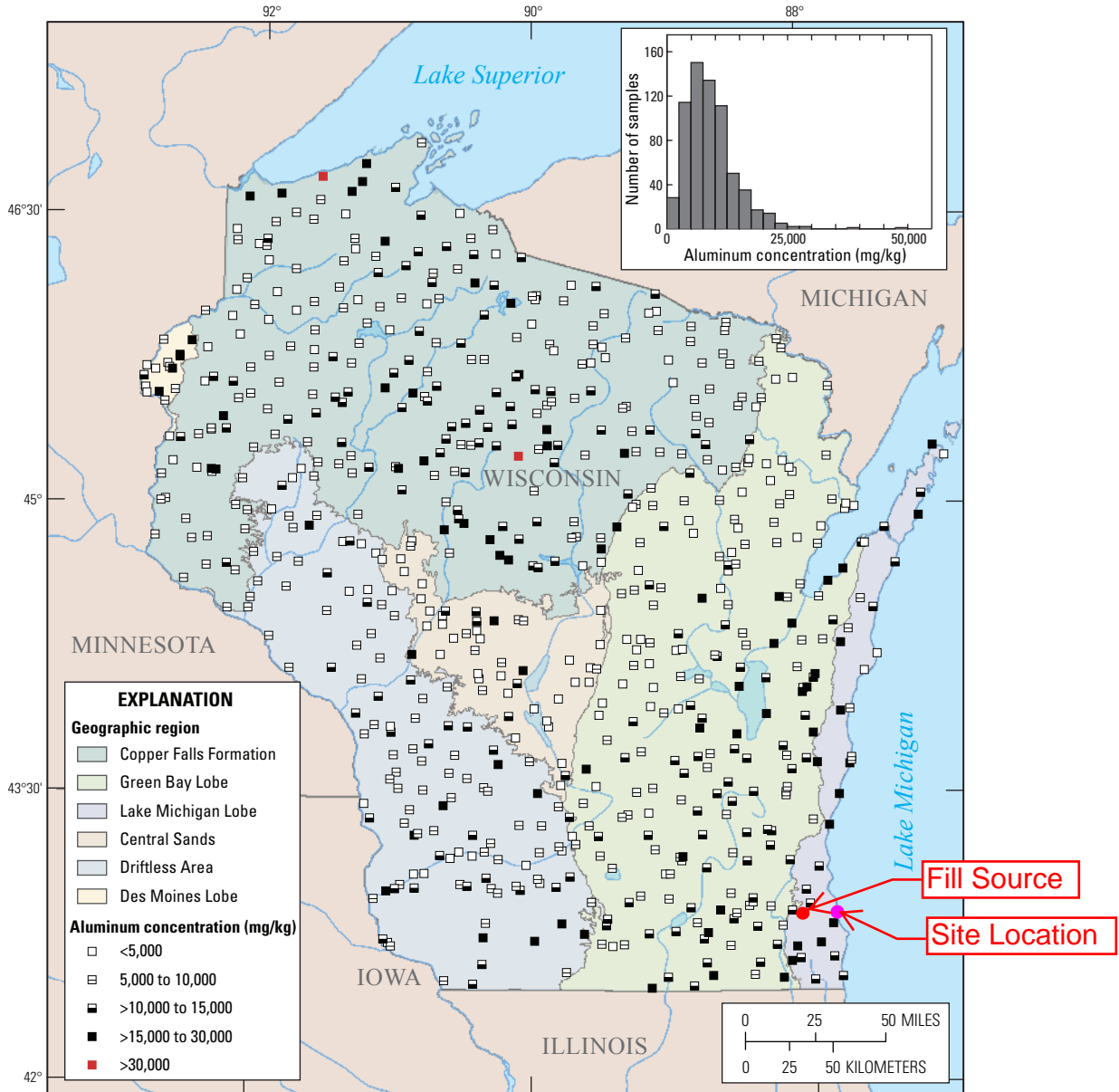
Note: Not all RR Sites have been geo-located yet.



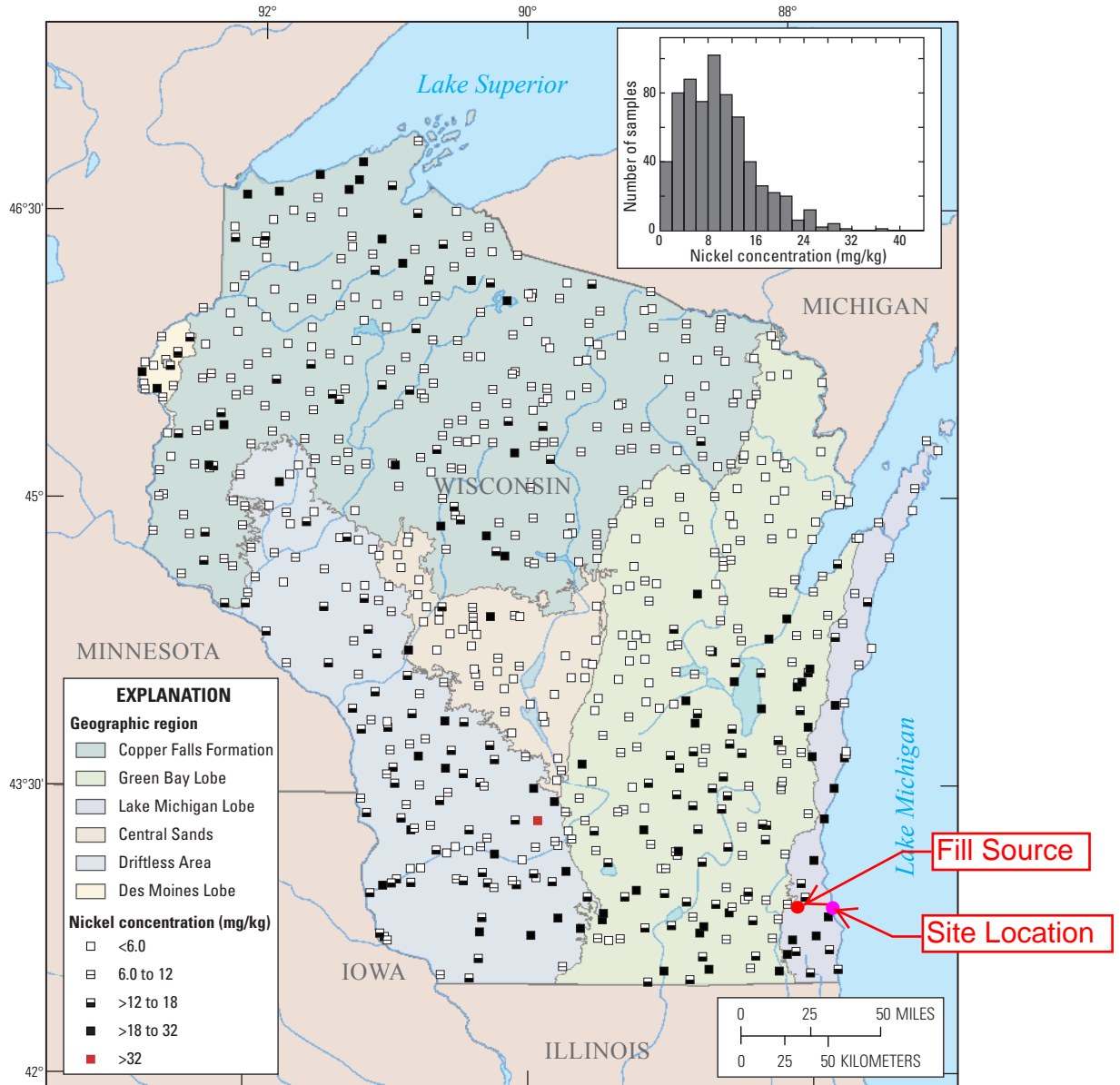
Scale: 1:9,599

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Notes: Emerald Park Landfill Fill Source Shown on RR Sites Map Created on June 20, 2013



**Figure 1-2.** Spatial distribution of aluminum concentrations of surface soil samples in Wisconsin. The histogram in the figure gives the frequency distribution of the aluminum concentrations. The data displayed in both the map and the histogram include outliers that were removed prior to statistical analysis and are shown on the figure as red squares.



**Figure 1–13.** Spatial distribution of nickel concentrations of surface soil samples in Wisconsin. The histogram in the figure gives the frequency distribution of the nickel concentrations. The data displayed in both the map and the histogram include outliers that were removed prior to statistical analysis and are shown on the figure as red squares.

**Table 1. Borrow Source Analytical Table**  
**Former Wabash Alloys Facility - Connell Aluminum Properties**  
**Oak Creek, Wisconsin**  
**BRRTS #02-41-553761**

Sample ID	Sample Location	Source Provider	Sample Date	Sample Time	VOCs <sup>(7)</sup>					Metals										PCBs									
					Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene total mg/kg	Total BTEX mg/kg	Arsenic mg/kg	Aluminum mg/kg	Barium mg/kg	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Lead mg/kg	Nickel mg/kg	Selenium mg/kg	Silver mg/kg	Zinc mg/kg	Mercury mg/kg	Archlor 1016 mg/kg	Archlor 1221 mg/kg	Archlor 1232 mg/kg	Archlor 1242 mg/kg	Archlor 1248 mg/kg	Archlor 1254 mg/kg	Archlor 1260 mg/kg	Total PCBs mg/kg
<i>Groundwater Pathway RCLs</i>					<i>0.005</i>	<i>1.11</i>	<i>1.57</i>	<i>3.94</i>	<i>NE</i>	<i>0.584</i>	<i>601,2903</i>	<i>164.8</i>	<i>0.752</i>	<i>360,000</i>	<i>91.6</i>	<i>27</i>	<i>13,0033</i>	<i>0.52</i>	<i>0.8497</i>	<i>NE</i>	<i>0.208</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>0.0094</i>		
<b>Non-Industrial Direct Contact RCLs</b>					<b>1.49</b>	<b>818</b>	<b>7.47</b>	<b>258</b>	<b>NE</b>	<b>0.39</b>	<b>77,500</b>	<b>15,300</b>	<b>70.2</b>	<b>120,000<sup>6</sup></b>	<b>3,130</b>	<b>400</b>	<b>1,550<sup>11</sup></b>	<b>391</b>	<b>391</b>	<b>23,500</b>	<b>3.13</b>	<b>3.93</b>	<b>0.159</b>	<b>0.159</b>	<b>0.222</b>	<b>0.222</b>	<b>0.222</b>	<b>0.222</b>	
FILL02	Emerald Park Landfill	Emerald Park Landfill	6/17/13	0815	<0.026	<0.026	<0.026	<0.051	<0.051	<b>6.5<sup>5</sup></b>	15,700	59.5	0.33 Q	22.7	20.5	7.3	24.9	<0.68	<0.25	37.6	0.012	<0.0085	<0.0072	<0.0081	<0.0051	<0.0061	<0.0051	<0.0028	<0.0028

Sample ID	Sample Location	Source Provider	Sample Date	Sample Time	SVOCs <sup>(8)</sup>																		
					Acenaphthene mg/kg	Acenaphthylene mg/kg	Anthracene mg/kg	Benzo(a)anthracene mg/kg	Benzo(b)fluoranthene mg/kg	Benzo(k)fluoranthene mg/kg	Benzo(a)pyrene mg/kg	Benzo(ghi)perylene mg/kg	Chrysene mg/kg	Dibenzo(a,h)anthracene mg/kg	Fluoranthene mg/kg	Fluorene mg/kg	Indeno(1,2,3-cd)pyrene mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg	Pyrene mg/kg	2-Methylnaphthalene mg/kg	Total PAHs mg/kg	Phenol mg/kg
<i>Groundwater Pathway RCLs</i>					<i>NE</i>	<i>NE</i>	<i>197</i>	<i>NE</i>	<i>0.48</i>	<i>NE</i>	<i>0.47</i>	<i>NE</i>	<i>0.15</i>	<i>NE</i>	<i>88.8</i>	<i>14.8</i>	<i>NE</i>	<i>0.66</i>	<i>NE</i>	<i>54.5</i>	<i>NE</i>	<i>NE</i>	<i>2.2998</i>
<b>Non-Industrial Direct Contact RCLs</b>					<b>3,440</b>	<b>NE</b>	<b>17,200</b>	<b>0.148</b>	<b>0.148</b>	<b>1.48</b>	<b>0.0148</b>	<b>NE</b>	<b>14.8</b>	<b>0.0148</b>	<b>2,290</b>	<b>2,290</b>	<b>0.148</b>	<b>5.15</b>	<b>NE</b>	<b>1,720</b>	<b>382<sup>10</sup></b>	<b>NE</b>	<b>18,300</b>
FILL02	Emerald Park Landfill	Emerald Park Landfill	6/17/13	0815	<0.0958	<0.0206	<0.0958	<0.0216	<0.0226	<0.0302	<0.0232	<0.0958	<0.028	<0.0351	<0.0339	<0.0096	<0.0257	<0.0224	<0.0958	<0.0467	0.0222 Q	0.0222	<0.0228

[OB: RJG 6/3/13; CB JAZ 6/3/13, RJG/ 06/19/13, CB JAZ 6/20/13]

- Notes:
- 1) Concentrations in italics are above the Groundwater Pathway RCLs
  - 2) Concentrations in bold are above the Non-Industrial Direct Contact RCLs
  - 3) < - Parameter was not detected above the indicated detection limit.
  - 4) NE - not established
  - 5) Arsenic concentration is below the WDNR's background concentration of 8 mg/kg.
  - 6) Chromium III was used for the Direct Contact RCL.
  - 7) The full list of VOCs (Method 8260) was analyzed but only BTEX is shown. All VOC results for FILL02 were non-detectable.
  - 8) The full list of SVOCs (Method 8270) was analyzed but only PAHs and Phenol are shown. The remaining SVOCs for FILL02 were non-detectable.
  - 9) Q - Estimated concentration above the adjusted method detection and below the adjusted reporting limit.
  - 10) Methylnaphthalene was used for the Direct Contact RCL.
  - 11) Nickel Soluble Salts was used for the Direct Contact RCL.



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

19 June 2013

Jody Barbeau  
Natural Resource Technology Inc  
234 W. Florida Street, Fifth Floor  
Milwaukee, WI 53204

RE: Former Wabash Alloys (Connell) - Oak Creek, WI

Enclosed are the analytical results for the samples received by the laboratory on 06/17/2013.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

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

Sincerely,

Jessica Esser  
Project Manager

**Certification List**

**Expires**

ILEPA	Illinois Secondary NELAP Accreditation	200062	04/30/2014
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2014
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2013
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2013
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2013





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234 W. Florida Street, Fifth Floor  
Milwaukee WI, 53204

Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fill 02	A132503-01	Soil	06/17/2013	06/17/2013

The E1 footnote on sample A132503-01 indicates that there were quality control sample exceedances for bromomethane and chloroethane. Bromomethane and chloroethane failed initial calibration criteria, had erratic continuing calibration verification (CCV) recoveries and had poor recoveries in laboratory control samples and/or matrix spike/matrix spike duplicate samples. These compounds often exhibit poor quality control results for soil samples with methanol preservation.



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234 W. Florida Street, Fifth Floor  
Milwaukee WI, 53204

Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

**Fill 02**  
**A132503-01 (Soil)**

**Date Sampled**  
**06/17/2013 08:15**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**ECCS**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A306072**

PCB-1016	ND	0.0085	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1221	ND	0.0072	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1232	ND	0.0081	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1242	ND	0.0051	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1248	ND	0.0061	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1254	ND	0.0051	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
PCB-1260	ND	0.0028	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	
Total PCBs	ND	0.0028	0.058	mg/kg dry	1	06/18/2013	06/18/2013 20:14	EPA 8082A	

Surrogate: Decachlorobiphenyl

88.1 % 59.1-127

06/18/2013 06/18/2013 20:14

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

96.1 % 77.4-119

06/18/2013 06/18/2013 20:14

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A306074**

Acetone	ND		1000	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Benzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Bromobenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Bromochloromethane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Bromodichloromethane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Bromoform	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Bromomethane	ND		260	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	E1
2-Butanone	ND		1000	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
n-Butyl Benzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
sec-Butyl Benzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
tert-Butylbenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Carbon disulfide	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Carbon tetrachloride	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Chlorobenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Chloroethane	ND		260	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	E1
Chloroform	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Chloromethane	ND		51	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
2-Chlorotoluene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
4-Chlorotoluene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Dibromochloromethane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
1,2-Dibromoethane (EDB)	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Dibromomethane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
1,2-Dichlorobenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
1,4-Dichlorobenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
1,3-Dichlorobenzene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Dichlorodifluoromethane	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	



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Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

**Fill 02**  
**A132503-01 (Soil)**

**Date Sampled**  
**06/17/2013 08:15**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**ECCS**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A306074**

1,1-Dichloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2-Dichloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
trans-1,2-Dichloroethene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
cis-1,2-Dichloroethene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1-Dichloroethene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
2,2-Dichloropropane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2-Dichloropropane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,3-Dichloropropane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
cis-1,3-Dichloropropene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
trans-1,3-Dichloropropene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1-Dichloropropene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Diisopropyl Ether	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Ethylbenzene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Hexachlorobutadiene	ND	100	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
n-Hexane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
2-Hexanone	ND	1000	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Isopropylbenzene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
p-Isopropyltoluene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Methylene chloride	ND	100	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
4-Methyl-2-pentanone	ND	1000	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Methyl t-Butyl Ether	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Naphthalene	ND	260	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
n-Propyl Benzene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Styrene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1,1,2-Tetrachloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1,2,2-Tetrachloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Tetrachloroethene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Tetrahydrofuran	ND	510	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Toluene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2,3-Trichlorobenzene	ND	100	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2,4-Trichlorobenzene	ND	100	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1,1-Trichloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1,2-Trichloroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Trichloroethene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
Trichlorofluoromethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2,3-Trichloropropane	ND	51	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,1,2-Trichlorotrifluoroethane	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,3,5-Trimethylbenzene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B
1,2,4-Trimethylbenzene	ND	26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B



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Milwaukee WI, 53204

Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

**Fill 02**  
**A132503-01 (Soil)**

Date Sampled  
06/17/2013 08:15

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**ECCS**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A306074**

Vinyl chloride	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
m,p-Xylene	ND		51	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
o-Xylene	ND		26	ug/kg dry	1	06/18/2013	06/18/2013 11:01	EPA 8260B	
Surrogate: Dibromofluoromethane			104 %	80.4-125		06/18/2013	06/18/2013 11:01	EPA 8260B	
Surrogate: Toluene-d8			99.1 %	94.1-107		06/18/2013	06/18/2013 11:01	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			98.3 %	90.3-110		06/18/2013	06/18/2013 11:01	EPA 8260B	

**Classical Chemistry Parameters**

**Preparation Batch:A306073**

% Solids	86.9		0.00	% by Weight	1	06/18/2013	06/18/2013 14:34	SM 2540B	
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**Pace Analytical**

**ASTM D2974-87**

**Preparation Batch:PMST 8584**

Percent Moisture	13.1	0.10	0.10	% dry	1	06/18/2013	06/18/2013 13:16	ASTM D2974-87	
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**EPA 6010**

**Preparation Batch:MPRP 8645**

Aluminum	15700	7.7	57.5	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	P6
Arsenic	6.5	0.62	2.3	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Barium	59.5	0.10	0.58	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Cadmium	0.33	0.058	0.58	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	J
Chromium	22.7	0.14	0.58	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Copper	20.5	0.19	1.2	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Lead	7.3	0.34	1.2	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Nickel	24.9	0.12	1.2	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Selenium	ND	0.68	2.3	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Silver	ND	0.25	1.2	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	
Zinc	37.6	0.31	4.6	mg/kg dry	1	06/18/2013	06/19/2013 09:01	EPA 6010	

**EPA 7471**

**Preparation Batch:MERP 3703**

Mercury	0.012	0.0038	0.0076	mg/kg dry	1	06/18/2013	06/19/2013 11:08	EPA 7471	
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**EPA 8270**

**Preparation Batch:OEXT 18627**

1,2,4-Trichlorobenzene	ND	10.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
1,2-Dichlorobenzene	ND	21.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
1,3-Dichlorobenzene	ND	22.5	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
1,4-Dichlorobenzene	ND	24.7	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,2'-Oxybis(1-chloropropane)	ND	24.5	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,4,5-Trichlorophenol	ND	12.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,4,6-Trichlorophenol	ND	21.2	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,4-Dichlorophenol	ND	16.4	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	



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Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

**Fill 02**  
**A132503-01 (Soil)**

Date Sampled  
06/17/2013 08:15

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical**

**EPA 8270**

**Preparation Batch:OEXT 18627**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
2,4-Dimethylphenol	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,4-Dinitrophenol	ND	141	767	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,4-Dinitrotoluene	ND	15.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2,6-Dinitrotoluene	ND	22.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2-Chloronaphthalene	ND	20.0	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2-Chlorophenol	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
<b>2-Methylnaphthalene</b>	<b>22.2</b>	21.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	J
2-Methylphenol(o-Cresol)	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2-Nitroaniline	ND	13.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
2-Nitrophenol	ND	22.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
3&4-Methylphenol(m&p Cresol)	ND	20.0	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
3,3'-Dichlorobenzidine	ND	13.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
3-Nitroaniline	ND	15.2	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4,6-Dinitro-2-methylphenol	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Bromophenylphenyl ether	ND	20.3	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Chloro-3-methylphenol	ND	19.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Chloroaniline	ND	95.8	383	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Chlorophenylphenyl ether	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Nitroaniline	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
4-Nitrophenol	ND	37.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Acenaphthene	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Acenaphthylene	ND	20.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Anthracene	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Benzo(a)anthracene	ND	21.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Benzo(a)pyrene	ND	23.2	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Benzo(b)fluoranthene	ND	22.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Benzo(g,h,i)perylene	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Benzo(k)fluoranthene	ND	30.2	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Butylbenzylphthalate	ND	43.2	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Carbazole	ND	19.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Chrysene	ND	28.0	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Di-n-butylphthalate	ND	32.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Di-n-octylphthalate	ND	20.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Dibenz(a,h)anthracene	ND	35.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	L2
Dibenzofuran	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Diethylphthalate	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Dimethylphthalate	ND	20.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Fluoranthene	ND	33.9	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Fluorene	ND	9.6	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	



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 Project Number: 2095  
 Project Manager: Jody Barbeau

Reported:  
 06/19/2013

**Fill 02**  
**A132503-01 (Soil)**

Date Sampled  
 06/17/2013 08:15

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical**

**EPA 8270**

**Preparation Batch:OEXT 18627**

Hexachloro-1,3-butadiene	ND	24.7	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Hexachlorobenzene	ND	11.3	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Hexachlorocyclopentadiene	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Hexachloroethane	ND	24.3	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Indeno(1,2,3-cd)pyrene	ND	25.7	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Isophorone	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
N-Nitroso-di-n-propylamine	ND	22.7	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
N-Nitrosodiphenylamine	ND	26.3	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Naphthalene	ND	22.4	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Nitrobenzene	ND	22.0	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Pentachlorophenol	ND	95.8	380	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Phenanthrene	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Phenol	ND	22.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Pyrene	ND	46.7	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
Pyridine	ND	489	3830	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
bis(2-Chloroethoxy)methane	ND	23.1	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
bis(2-Chloroethyl) ether	ND	95.8	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
bis(2-Ethylhexyl)phthalate	ND	39.3	192	ug/kg dry	1	06/18/2013	06/18/2013 13:31	EPA 8270	
<i>Surrogate: 2,4,6-Tribromophenol (S)</i>			17 %	18-130		06/18/2013	06/18/2013 13:31	EPA 8270	SO
<i>Surrogate: 2-Fluorobiphenyl (S)</i>			59 %	53-130		06/18/2013	06/18/2013 13:31	EPA 8270	
<i>Surrogate: 2-Fluorophenol (S)</i>			52 %	28-130		06/18/2013	06/18/2013 13:31	EPA 8270	
<i>Surrogate: Nitrobenzene-d5 (S)</i>			58 %	40-130		06/18/2013	06/18/2013 13:31	EPA 8270	
<i>Surrogate: Phenol-d6 (S)</i>			52 %	30-130		06/18/2013	06/18/2013 13:31	EPA 8270	
<i>Surrogate: Terphenyl-d14 (S)</i>			48 %	36-162		06/18/2013	06/18/2013 13:31	EPA 8270	



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Reported:  
 06/19/2013

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306072 - EPA 3570**

**Blank (A306072-BLK1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 19:47

PCB-1016	ND	0.050	mg/kg wet							
PCB-1221	ND	0.050	mg/kg wet							
PCB-1232	ND	0.050	mg/kg wet							
PCB-1242	ND	0.050	mg/kg wet							
PCB-1248	ND	0.050	mg/kg wet							
PCB-1254	ND	0.050	mg/kg wet							
PCB-1260	ND	0.050	mg/kg wet							
Total PCBs	ND	0.050	mg/kg wet							

Surrogate: Decachlorobiphenyl

0.106

mg/kg wet

0.1200

88.2

59.1-127

Surrogate: Tetrachloro-meta-xylene

0.111

mg/kg wet

0.1200

92.9

77.4-119

**LCS (A306072-BS1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 19:20

PCB-1248	0.945	0.050	mg/kg wet	1.000		94.5	76.6-122			
Surrogate: Decachlorobiphenyl	0.107		mg/kg wet	0.1200		89.4	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.113		mg/kg wet	0.1200		94.3	77.4-119			



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Reported:  
06/19/2013

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

**Blank (A306074-BLK1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 16:23

Acetone	ND	1000	ug/kg wet							
Benzene	ND	25	ug/kg wet							
Bromobenzene	ND	25	ug/kg wet							
Bromochloromethane	ND	25	ug/kg wet							
Bromodichloromethane	ND	25	ug/kg wet							
Bromoform	ND	25	ug/kg wet							
Bromomethane	ND	250	ug/kg wet							
2-Butanone	ND	1000	ug/kg wet							
n-Butyl Benzene	ND	25	ug/kg wet							
sec-Butyl Benzene	ND	25	ug/kg wet							
tert-Butylbenzene	ND	25	ug/kg wet							
Carbon disulfide	ND	25	ug/kg wet							
Carbon tetrachloride	ND	25	ug/kg wet							
Chlorobenzene	ND	25	ug/kg wet							
Chloroethane	ND	250	ug/kg wet							
Chloroform	ND	25	ug/kg wet							
Chloromethane	ND	50	ug/kg wet							
2-Chlorotoluene	ND	25	ug/kg wet							
4-Chlorotoluene	ND	25	ug/kg wet							
1,2-Dibromo-3-chloropropane	ND	25	ug/kg wet							
Dibromochloromethane	ND	25	ug/kg wet							
1,2-Dibromoethane (EDB)	ND	25	ug/kg wet							
Dibromomethane	ND	25	ug/kg wet							
1,2-Dichlorobenzene	ND	25	ug/kg wet							
1,4-Dichlorobenzene	ND	25	ug/kg wet							
1,3-Dichlorobenzene	ND	25	ug/kg wet							
Dichlorodifluoromethane	ND	25	ug/kg wet							
1,1-Dichloroethane	ND	25	ug/kg wet							
1,2-Dichloroethane	ND	25	ug/kg wet							
trans-1,2-Dichloroethene	ND	25	ug/kg wet							
cis-1,2-Dichloroethene	ND	25	ug/kg wet							
1,1-Dichloroethene	ND	25	ug/kg wet							
2,2-Dichloropropane	ND	25	ug/kg wet							
1,2-Dichloropropane	ND	25	ug/kg wet							
1,3-Dichloropropane	ND	25	ug/kg wet							
cis-1,3-Dichloropropene	ND	25	ug/kg wet							
trans-1,3-Dichloropropene	ND	25	ug/kg wet							
1,1-Dichloropropene	ND	25	ug/kg wet							
Diisopropyl Ether	ND	25	ug/kg wet							
Ethylbenzene	ND	25	ug/kg wet							
Hexachlorobutadiene	ND	100	ug/kg wet							
n-Hexane	ND	25	ug/kg wet							
2-Hexanone	ND	1000	ug/kg wet							
Isopropylbenzene	ND	25	ug/kg wet							





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Reported:  
06/19/2013

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

**Blank (A306074-BLK1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 16:23

p-Isopropyltoluene	ND	25	ug/kg wet							
Methylene chloride	ND	100	ug/kg wet							
4-Methyl-2-pentanone	ND	1000	ug/kg wet							
Methyl t-Butyl Ether	ND	25	ug/kg wet							
Naphthalene	ND	250	ug/kg wet							
n-Propyl Benzene	ND	25	ug/kg wet							
Styrene	ND	25	ug/kg wet							
1,1,1,2-Tetrachloroethane	ND	25	ug/kg wet							
1,1,2,2-Tetrachloroethane	ND	25	ug/kg wet							
Tetrachloroethene	ND	25	ug/kg wet							
Tetrahydrofuran	ND	500	ug/kg wet							
Toluene	ND	25	ug/kg wet							
1,2,3-Trichlorobenzene	ND	100	ug/kg wet							
1,2,4-Trichlorobenzene	ND	100	ug/kg wet							
1,1,1-Trichloroethane	ND	25	ug/kg wet							
1,1,2-Trichloroethane	ND	25	ug/kg wet							
Trichloroethene	ND	25	ug/kg wet							
Trichlorofluoromethane	ND	25	ug/kg wet							
1,2,3-Trichloropropane	ND	50	ug/kg wet							
1,1,2-Trichlorotrifluoroethane	ND	25	ug/kg wet							
1,3,5-Trimethylbenzene	ND	25	ug/kg wet							
1,2,4-Trimethylbenzene	ND	25	ug/kg wet							
Vinyl chloride	ND	25	ug/kg wet							
m,p-Xylene	ND	50	ug/kg wet							
o-Xylene	ND	25	ug/kg wet							
<i>Surrogate: Dibromofluoromethane</i>	26.9		ug/L	25.00		108	80.4-125			
<i>Surrogate: Toluene-d8</i>	24.7		ug/L	25.00		98.9	94.1-107			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.5		ug/L	25.00		97.9	90.3-110			

**LCS (A306074-BS1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 16:49

Acetone	56.0		ug/L	50.00		112	46.4-160			
Benzene	5.15		ug/L	5.000		103	73.7-133			
Bromobenzene	5.33		ug/L	5.000		107	89-114			
Bromochloromethane	5.54		ug/L	5.000		111	77.3-135			
Bromodichloromethane	4.53		ug/L	5.000		90.6	71.9-126			
Bromoform	4.78		ug/L	5.000		95.6	58-129			
Bromomethane	9.02		ug/L	5.000		180	16.5-194			
2-Butanone	43.6		ug/L	50.00		87.3	70-131			
n-Butyl Benzene	5.39		ug/L	5.000		108	87.8-125			
sec-Butyl Benzene	5.56		ug/L	5.000		111	86.5-124			
tert-Butylbenzene	5.38		ug/L	5.000		108	86-122			
Carbon disulfide	4.45		ug/L	5.000		89.0	77.6-122			
Carbon tetrachloride	4.93		ug/L	5.000		98.6	79.7-115			
Chlorobenzene	5.19		ug/L	5.000		104	91.8-114			



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Natural Resource Technology Inc  
234 W. Florida Street, Fifth Floor  
Milwaukee WI, 53204

Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

**LCS (A306074-BS1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 16:49

Chloroethane	4.93		ug/L	5.000		98.6	30.5-198			
Chloroform	5.01		ug/L	5.000		100	78.1-130			
Chloromethane	4.66		ug/L	5.000		93.2	71.8-123			
2-Chlorotoluene	5.38		ug/L	5.000		108	94.9-114			
4-Chlorotoluene	5.36		ug/L	5.000		107	85.1-122			
1,2-Dibromo-3-chloropropane	5.42		ug/L	5.000		108	55.1-136			
Dibromochloromethane	4.49		ug/L	5.000		89.8	70.4-124			
1,2-Dibromoethane (EDB)	4.98		ug/L	5.000		99.6	83.4-125			
Dibromomethane	5.02		ug/L	5.000		100	79.6-124			
1,2-Dichlorobenzene	5.31		ug/L	5.000		106	93.3-115			
1,4-Dichlorobenzene	5.21		ug/L	5.000		104	83.4-121			
1,3-Dichlorobenzene	5.34		ug/L	5.000		107	92.6-115			
Dichlorodifluoromethane	4.75		ug/L	5.000		95.0	73.4-130			
1,1-Dichloroethane	5.25		ug/L	5.000		105	81.6-129			
1,2-Dichloroethane	4.95		ug/L	5.000		99.0	67.8-139			
trans-1,2-Dichloroethene	5.38		ug/L	5.000		108	85.2-123			
cis-1,2-Dichloroethene	5.16		ug/L	5.000		103	86-121			
1,1-Dichloroethene	5.11		ug/L	5.000		102	78.2-118			
2,2-Dichloropropane	4.52		ug/L	5.000		90.4	60.6-131			
1,2-Dichloropropane	4.84		ug/L	5.000		96.8	84.5-117			
1,3-Dichloropropane	4.69		ug/L	5.000		93.8	84.6-119			
cis-1,3-Dichloropropene	4.52		ug/L	5.000		90.4	77.3-124			
trans-1,3-Dichloropropene	4.41		ug/L	5.000		88.2	71.7-127			
1,1,1-Dichloropropene	5.59		ug/L	5.000		112	78.3-134			
Diisopropyl Ether	4.93		ug/L	5.000		98.6	81.8-124			
Ethylbenzene	5.15		ug/L	5.000		103	87.8-122			
Hexachlorobutadiene	4.93		ug/L	5.000		98.6	82.4-120			
n-Hexane	5.14		ug/L	5.000		103	77.5-125			
2-Hexanone	45.6		ug/L	50.00		91.1	73.5-126			
Isopropylbenzene	5.08		ug/L	5.000		102	88.7-122			
p-Isopropyltoluene	5.49		ug/L	5.000		110	89.1-124			
Methylene chloride	4.93		ug/L	5.000		98.6	70.6-131			
4-Methyl-2-pentanone	46.8		ug/L	50.00		93.5	75.5-127			
Methyl t-Butyl Ether	4.65		ug/L	5.000		93.0	75-131			
Naphthalene	4.65		ug/L	5.000		93.0	69.8-117			
n-Propyl Benzene	5.36		ug/L	5.000		107	80.7-127			
Styrene	5.10		ug/L	5.000		102	89.3-115			
1,1,1,2-Tetrachloroethane	5.12		ug/L	5.000		102	86.8-113			
1,1,2,2-Tetrachloroethane	4.77		ug/L	5.000		95.4	79.1-125			
Tetrachloroethene	4.83		ug/L	5.000		96.6	78.3-123			
Tetrahydrofuran	22.9		ug/L	25.00		91.8	62.7-143			
Toluene	4.92		ug/L	5.000		98.4	76.3-120			
1,2,3-Trichlorobenzene	5.23		ug/L	5.000		105	83-121			
1,2,4-Trichlorobenzene	5.37		ug/L	5.000		107	86.3-117			



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06/19/2013

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

**LCS (A306074-BS1)**

Prepared: 06/18/2013 Analyzed: 06/18/2013 16:49

1,1,1-Trichloroethane	4.97		ug/L	5.000		99.4	84.6-121			
1,1,2-Trichloroethane	4.90		ug/L	5.000		98.0	83.4-120			
Trichloroethene	5.27		ug/L	5.000		105	85.4-117			
Trichlorofluoromethane	5.62		ug/L	5.000		112	48.3-162			
1,2,3-Trichloropropane	4.74		ug/L	5.000		94.8	74.3-125			
1,1,2-Trichlorotrifluoroethane	5.04		ug/L	5.000		101	75.6-132			
1,3,5-Trimethylbenzene	5.37		ug/L	5.000		107	88-122			
1,2,4-Trimethylbenzene	5.46		ug/L	5.000		109	83.2-122			
Vinyl chloride	4.93		ug/L	5.000		98.6	73.2-134			
m,p-Xylene	10.6		ug/L	10.00		106	89.8-118			
o-Xylene	5.05		ug/L	5.000		101	89.1-117			
<i>Surrogate: Dibromofluoromethane</i>	26.5		ug/L	25.00		106	80.4-125			
<i>Surrogate: Toluene-d8</i>	24.2		ug/L	25.00		96.7	94.1-107			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.3		ug/L	25.00		97.3	90.3-110			

**Matrix Spike (A306074-MS1)**

Source: A132503-01

Prepared: 06/18/2013 Analyzed: 06/18/2013 17:15

Acetone	60.6		ug/L	50.00	ND	121	45.8-164			
Benzene	5.24		ug/L	5.000	ND	105	73.7-131			
Bromobenzene	5.25		ug/L	5.000	ND	105	85.2-120			
Bromochloromethane	5.56		ug/L	5.000	ND	111	74.1-139			
Bromodichloromethane	4.55		ug/L	5.000	ND	91.0	73.5-124			
Bromoform	4.68		ug/L	5.000	ND	93.6	61.1-131			
Bromomethane	13.6		ug/L	5.000	ND	273	9.3-190			M
2-Butanone	47.8		ug/L	50.00	ND	95.5	66.8-143			
n-Butyl Benzene	5.38		ug/L	5.000	ND	108	76.8-132			
sec-Butyl Benzene	5.49		ug/L	5.000	ND	110	94.1-120			
tert-Butylbenzene	5.30		ug/L	5.000	ND	106	82.7-129			
Carbon disulfide	4.77		ug/L	5.000	ND	95.4	81.1-120			
Carbon tetrachloride	4.93		ug/L	5.000	ND	98.6	71.6-131			
Chlorobenzene	5.22		ug/L	5.000	ND	104	86.9-121			
Chloroethane	9.48		ug/L	5.000	ND	190	6-181			M
Chloroform	5.01		ug/L	5.000	ND	100	65.2-143			
Chloromethane	5.42		ug/L	5.000	ND	108	47.1-146			
2-Chlorotoluene	5.16		ug/L	5.000	ND	103	84.7-126			
4-Chlorotoluene	5.11		ug/L	5.000	ND	102	85.8-123			
1,2-Dibromo-3-chloropropane	5.59		ug/L	5.000	ND	112	55.4-148			
Dibromochloromethane	4.47		ug/L	5.000	ND	89.4	69.9-126			
1,2-Dibromoethane (EDB)	4.99		ug/L	5.000	ND	99.8	78.2-133			
Dibromomethane	5.17		ug/L	5.000	ND	103	85.5-122			
1,2-Dichlorobenzene	5.22		ug/L	5.000	ND	104	85.1-124			
1,4-Dichlorobenzene	5.17		ug/L	5.000	ND	103	79.7-122			
1,3-Dichlorobenzene	5.22		ug/L	5.000	ND	104	83.5-124			
Dichlorodifluoromethane	4.79		ug/L	5.000	ND	95.8	68.8-126			
1,1-Dichloroethane	5.44		ug/L	5.000	ND	109	68.5-145			



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06/19/2013

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

<b>Matrix Spike (A306074-MS1)</b>	<b>Source: A132503-01</b>	<b>Prepared: 06/18/2013 Analyzed: 06/18/2013 17:15</b>								
1,2-Dichloroethane	5.25	ug/L	5.000	ND	105	67.8-140				
trans-1,2-Dichloroethene	5.41	ug/L	5.000	ND	108	80.4-131				
cis-1,2-Dichloroethene	5.43	ug/L	5.000	ND	109	78.2-132				
1,1-Dichloroethene	5.00	ug/L	5.000	ND	100	67.9-130				
2,2-Dichloropropane	4.73	ug/L	5.000	ND	94.6	59.4-124				
1,2-Dichloropropane	4.95	ug/L	5.000	ND	99.0	80.9-123				
1,3-Dichloropropane	4.81	ug/L	5.000	ND	96.2	84.6-123				
cis-1,3-Dichloropropene	4.56	ug/L	5.000	ND	91.2	74-131				
trans-1,3-Dichloropropene	4.35	ug/L	5.000	ND	87.0	67-137				
1,1-Dichloropropene	5.34	ug/L	5.000	ND	107	82.4-131				
Diisopropyl Ether	5.42	ug/L	5.000	ND	108	76.6-134				
Ethylbenzene	5.08	ug/L	5.000	ND	102	86.8-120				
Hexachlorobutadiene	5.31	ug/L	5.000	ND	106	67.8-135				
n-Hexane	5.14	ug/L	5.000	0.250	97.8	69.5-128				
2-Hexanone	48.2	ug/L	50.00	ND	96.3	71.6-134				
Isopropylbenzene	5.01	ug/L	5.000	ND	100	83.8-128				
p-Isopropyltoluene	5.39	ug/L	5.000	ND	108	81.1-131				
Methylene chloride	4.92	ug/L	5.000	ND	98.4	70.3-133				
4-Methyl-2-pentanone	48.1	ug/L	50.00	ND	96.3	80.7-125				
Methyl t-Butyl Ether	5.05	ug/L	5.000	ND	101	70.7-136				
Naphthalene	5.78	ug/L	5.000	ND	116	57.6-136				
n-Propyl Benzene	5.29	ug/L	5.000	ND	106	88.5-123				
Styrene	5.07	ug/L	5.000	ND	101	79.7-128				
1,1,1,2-Tetrachloroethane	4.90	ug/L	5.000	ND	98.0	77.8-127				
1,1,1,2,2-Tetrachloroethane	5.06	ug/L	5.000	ND	101	76.6-135				
Tetrachloroethene	4.86	ug/L	5.000	ND	97.2	75.6-123				
Tetrahydrofuran	24.2	ug/L	25.00	ND	96.9	70.1-147				
Toluene	5.00	ug/L	5.000	0.120	97.6	76.3-118				
1,2,3-Trichlorobenzene	5.49	ug/L	5.000	ND	110	73.1-130				
1,2,4-Trichlorobenzene	5.77	ug/L	5.000	ND	115	72-131				
1,1,1-Trichloroethane	5.16	ug/L	5.000	ND	103	83-127				
1,1,2-Trichloroethane	4.84	ug/L	5.000	ND	96.8	79.1-130				
Trichloroethene	5.27	ug/L	5.000	ND	105	77.3-127				
Trichlorofluoromethane	5.30	ug/L	5.000	ND	106	43.5-176				
1,2,3-Trichloropropane	5.00	ug/L	5.000	ND	100	73.7-131				
1,1,2-Trichlorotrifluoroethane	5.49	ug/L	5.000	ND	110	58.2-143				
1,3,5-Trimethylbenzene	5.41	ug/L	5.000	ND	108	90.4-120				
1,2,4-Trimethylbenzene	5.44	ug/L	5.000	ND	109	84.3-121				
Vinyl chloride	4.92	ug/L	5.000	ND	98.4	62.7-141				
m,p-Xylene	10.5	ug/L	10.00	ND	105	87.9-119				
o-Xylene	4.92	ug/L	5.000	ND	98.4	81.2-124				
Surrogate: Dibromofluoromethane	27.2	ug/L	25.00		109	80.4-125				
Surrogate: Toluene-d8	24.5	ug/L	25.00		98.0	94.1-107				
Surrogate: 4-Bromofluorobenzene	24.7	ug/L	25.00		98.6	90.3-110				



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

Matrix Spike Dup (A306074-MSD1)	Source: A132503-01	Prepared: 06/18/2013	Analyzed: 06/18/2013 17:42							
Acetone	54.8	ug/L	50.00	ND	110	45.8-164	9.93	20		
Benzene	4.99	ug/L	5.000	ND	99.8	73.7-131	4.89	20		
Bromobenzene	5.21	ug/L	5.000	ND	104	85.2-120	0.765	20		
Bromochloromethane	5.40	ug/L	5.000	ND	108	74.1-139	2.92	20		
Bromodichloromethane	4.43	ug/L	5.000	ND	88.6	73.5-124	2.67	20		
Bromoform	4.99	ug/L	5.000	ND	99.8	61.1-131	6.41	20		
Bromomethane	4.32	ug/L	5.000	ND	86.4	9.3-190	104	20	X	
2-Butanone	45.0	ug/L	50.00	ND	90.0	66.8-143	5.91	20		
n-Butyl Benzene	5.32	ug/L	5.000	ND	106	76.8-132	1.12	20		
sec-Butyl Benzene	5.36	ug/L	5.000	ND	107	94.1-120	2.40	20		
tert-Butylbenzene	5.16	ug/L	5.000	ND	103	82.7-129	2.68	20		
Carbon disulfide	4.49	ug/L	5.000	ND	89.8	81.1-120	6.05	20		
Carbon tetrachloride	4.71	ug/L	5.000	ND	94.2	71.6-131	4.56	20		
Chlorobenzene	5.02	ug/L	5.000	ND	100	86.9-121	3.91	20		
Chloroethane	6.88	ug/L	5.000	ND	138	6-181	31.8	20	X	
Chloroform	4.76	ug/L	5.000	ND	95.2	65.2-143	5.12	20		
Chloromethane	5.38	ug/L	5.000	ND	108	47.1-146	0.741	20		
2-Chlorotoluene	5.10	ug/L	5.000	ND	102	84.7-126	1.17	20		
4-Chlorotoluene	5.07	ug/L	5.000	ND	101	85.8-123	0.786	20		
1,2-Dibromo-3-chloropropane	5.19	ug/L	5.000	ND	104	55.4-148	7.42	20		
Dibromochloromethane	4.28	ug/L	5.000	ND	85.6	69.9-126	4.34	20		
1,2-Dibromoethane (EDB)	4.91	ug/L	5.000	ND	98.2	78.2-133	1.62	20		
Dibromomethane	5.02	ug/L	5.000	ND	100	85.5-122	2.94	20		
1,2-Dichlorobenzene	5.09	ug/L	5.000	ND	102	85.1-124	2.52	20		
1,4-Dichlorobenzene	5.06	ug/L	5.000	ND	101	79.7-122	2.15	20		
1,3-Dichlorobenzene	5.07	ug/L	5.000	ND	101	83.5-124	2.92	20		
Dichlorodifluoromethane	4.50	ug/L	5.000	ND	90.0	68.8-126	6.24	20		
1,1-Dichloroethane	5.21	ug/L	5.000	ND	104	68.5-145	4.32	20		
1,2-Dichloroethane	5.29	ug/L	5.000	ND	106	67.8-140	0.759	20		
trans-1,2-Dichloroethene	5.23	ug/L	5.000	ND	105	80.4-131	3.38	20		
cis-1,2-Dichloroethene	5.59	ug/L	5.000	ND	112	78.2-132	2.90	20		
1,1-Dichloroethene	4.80	ug/L	5.000	ND	96.0	67.9-130	4.08	20		
2,2-Dichloropropane	4.62	ug/L	5.000	ND	92.4	59.4-124	2.35	20		
1,2-Dichloropropane	4.77	ug/L	5.000	ND	95.4	80.9-123	3.70	20		
1,3-Dichloropropane	4.67	ug/L	5.000	ND	93.4	84.6-123	2.95	20		
cis-1,3-Dichloropropene	4.56	ug/L	5.000	ND	91.2	74-131	0.00	20		
trans-1,3-Dichloropropene	4.25	ug/L	5.000	ND	85.0	67-137	2.33	20		
1,1-Dichloropropene	5.00	ug/L	5.000	ND	100	82.4-131	6.58	20		
Diisopropyl Ether	5.19	ug/L	5.000	ND	104	76.6-134	4.34	20		
Ethylbenzene	4.79	ug/L	5.000	ND	95.8	86.8-120	5.88	20		
Hexachlorobutadiene	5.12	ug/L	5.000	ND	102	67.8-135	3.64	20		
n-Hexane	4.88	ug/L	5.000	0.250	92.6	69.5-128	5.46	20		
2-Hexanone	46.1	ug/L	50.00	ND	92.3	71.6-134	4.26	20		
Isopropylbenzene	4.97	ug/L	5.000	ND	99.4	83.8-128	0.802	20		



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A306074 - EPA 5030B**

<b>Matrix Spike Dup (A306074-MSD1)</b>	<b>Source: A132503-01</b>		<b>Prepared: 06/18/2013</b>		<b>Analyzed: 06/18/2013 17:42</b>			
p-Isopropyltoluene	5.18	ug/L	5.000	ND	104	81.1-131	3.97	20
Methylene chloride	4.95	ug/L	5.000	ND	99.0	70.3-133	0.608	20
4-Methyl-2-pentanone	48.5	ug/L	50.00	ND	97.0	80.7-125	0.745	20
Methyl t-Butyl Ether	5.02	ug/L	5.000	ND	100	70.7-136	0.596	20
Naphthalene	5.48	ug/L	5.000	ND	110	57.6-136	5.33	20
n-Propyl Benzene	5.26	ug/L	5.000	ND	105	88.5-123	0.569	20
Styrene	4.97	ug/L	5.000	ND	99.4	79.7-128	1.99	20
1,1,1,2-Tetrachloroethane	4.64	ug/L	5.000	ND	92.8	77.8-127	5.45	20
1,1,1,2,2-Tetrachloroethane	4.92	ug/L	5.000	ND	98.4	76.6-135	2.81	20
Tetrachloroethene	4.69	ug/L	5.000	ND	93.8	75.6-123	3.56	20
Tetrahydrofuran	25.0	ug/L	25.00	ND	99.8	70.1-147	3.01	20
Toluene	4.95	ug/L	5.000	0.120	96.6	76.3-118	1.03	20
1,2,3-Trichlorobenzene	5.50	ug/L	5.000	ND	110	73.1-130	0.182	20
1,2,4-Trichlorobenzene	5.58	ug/L	5.000	ND	112	72-131	3.35	20
1,1,1-Trichloroethane	4.92	ug/L	5.000	ND	98.4	83-127	4.76	20
1,1,2-Trichloroethane	4.87	ug/L	5.000	ND	97.4	79.1-130	0.618	20
Trichloroethene	5.20	ug/L	5.000	ND	104	77.3-127	1.34	20
Trichlorofluoromethane	5.26	ug/L	5.000	ND	105	43.5-176	0.758	20
1,2,3-Trichloropropane	4.52	ug/L	5.000	ND	90.4	73.7-131	10.1	20
1,1,2-Trichlorotrifluoroethane	5.06	ug/L	5.000	ND	101	58.2-143	8.15	20
1,3,5-Trimethylbenzene	5.24	ug/L	5.000	ND	105	90.4-120	3.19	20
1,2,4-Trimethylbenzene	5.38	ug/L	5.000	ND	108	84.3-121	1.11	20
Vinyl chloride	4.85	ug/L	5.000	ND	97.0	62.7-141	1.43	20
m,p-Xylene	9.88	ug/L	10.00	ND	98.8	87.9-119	5.99	20
o-Xylene	4.93	ug/L	5.000	ND	98.6	81.2-124	0.203	20
<i>Surrogate: Dibromofluoromethane</i>	<i>27.1</i>	<i>ug/L</i>	<i>25.00</i>		<i>108</i>	<i>80.4-125</i>		
<i>Surrogate: Toluene-d8</i>	<i>24.7</i>	<i>ug/L</i>	<i>25.00</i>		<i>98.9</i>	<i>94.1-107</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>24.3</i>	<i>ug/L</i>	<i>25.00</i>		<i>97.3</i>	<i>90.3-110</i>		



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

Natural Resource Technology Inc  
234 W. Florida Street, Fifth Floor  
Milwaukee WI, 53204

Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

### Classical Chemistry Parameters - Quality Control

#### ECCS

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch A306073 - % Solids

Duplicate (A306073-DUP1)	Source: A132503-01	Prepared: 06/18/2013	Analyzed: 06/19/2013 14:34		
% Solids	85.9	0.00 % by Weight	86.9	1.19	20



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

Natural Resource Technology Inc  
234 W. Florida Street, Fifth Floor  
Milwaukee WI, 53204

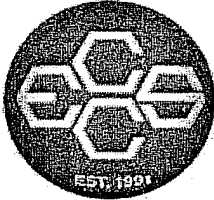
Project: Former Wabash Alloys (Connell) - Oak Creek, WI  
Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
06/19/2013

### Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of control limits.
- S0 Surrogate recovery 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.
- M The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
- L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- E1 Estimated value because of quality control sample exceedances.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference





**Environmental Chemistry Consulting Services, Inc.**  
 2525 Advance Road  
 Madison, WI 53718  
 608-221-8700 (phone)  
 608-221-4889 (fax)

# CHAIN OF CUSTODY

209513061701

Project Number: 2095				Lab Work Order #: <b>A132503</b>				Mail Report To: Jody Barbeau							
Project Name: Former Wabash Alloys - Connell property				Preservation Codes				Company: NRT 234 W. Florida St, 5th Floor							
Project Location: Oak Creek, WI				Analyses Requested				Address: 23713 W. Paul Rd, Unit D							
Turn Around (check one): <input type="checkbox"/> Normal <input checked="" type="checkbox"/> 5 BDs <input type="checkbox"/> 3 BDs <input type="checkbox"/> 2 BDs <input type="checkbox"/> 24 hrs				Matrix Total # of Containers PCBs method 8082 AAs SVOCs metals (sent to separate jar) AL, Cu, Ni, Zn VOCs				Address: Milwaukee, WI 53072-53204							
If Rush, Report Due Date:								E-mail Address: jbarbeau@naturalrt.com							
Sampled By (Print): Ricky J Guenther Jr.								Invoice To: Tracy Summit (tsummit@naturalrt.com)							
								Company: NRT							
Sample Description				Collection Date Time				Address: same							
								Comments				Lab ID		Lab Receipt Time	
Fill 02				6/17/13 0815		S 6		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		01					
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<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)		<b>Rush TAT Multipliers</b> 5 Business Days = 1.5x 3 Business Days = 2x 2 Business Days = 2.25x 24 Hours = 2.5x *must be pre-arranged*		Relinquished By: <i>[Signature]</i> Relinquished By:		Date: 6/17/13 Date:		Time: 1300 Time:		Received By: <i>[Signature]</i> Received By:		Date: 6-17-13 Date:		Time: 1400 Time:	
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other				Custody Seal: <input type="checkbox"/> Present <input checked="" type="checkbox"/> Absent <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Seal #s:		Shipped Via: walk-in		Receipt Temp: 5.8°C		Temp Blank: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			

June 19, 2013

Jessica Esser  
ECCS  
2525 Advance Road  
Madison, WI 53718

RE: Project: A132503 FORMER WABASH ALLOYS  
Pace Project No.: 4079730

Dear Jessica Esser:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2013. 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,



Dan Milewsky

dan.milewsky@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 11888

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

US Dept of Agriculture #: S-76505

Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4079730001	A132503-01	Solid	06/17/13 08:15	06/18/13 09:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4079730001	A132503-01	EPA 6010	DLB	11
		EPA 7471	CMS	1
		EPA 8270	ARO	71
		ASTM D2974-87	SKW	1

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

Sample: A132503-01 Lab ID: 4079730001 Collected: 06/17/13 08:15 Received: 06/18/13 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Aluminum	15700	mg/kg	57.5	7.7	1	06/18/13 08:15	06/19/13 09:01	7429-90-5	P6
Arsenic	6.5	mg/kg	2.3	0.62	1	06/18/13 08:15	06/19/13 09:01	7440-38-2	
Barium	59.5	mg/kg	0.58	0.10	1	06/18/13 08:15	06/19/13 09:01	7440-39-3	
Cadmium	0.33J	mg/kg	0.58	0.058	1	06/18/13 08:15	06/19/13 09:01	7440-43-9	
Chromium	22.7	mg/kg	0.58	0.14	1	06/18/13 08:15	06/19/13 09:01	7440-47-3	
Copper	20.5	mg/kg	1.2	0.19	1	06/18/13 08:15	06/19/13 09:01	7440-50-8	
Lead	7.3	mg/kg	1.2	0.34	1	06/18/13 08:15	06/19/13 09:01	7439-92-1	
Nickel	24.9	mg/kg	1.2	0.12	1	06/18/13 08:15	06/19/13 09:01	7440-02-0	
Selenium	<0.68	mg/kg	2.3	0.68	1	06/18/13 08:15	06/19/13 09:01	7782-49-2	
Silver	<0.25	mg/kg	1.2	0.25	1	06/18/13 08:15	06/19/13 09:01	7440-22-4	
Zinc	37.6	mg/kg	4.6	0.31	1	06/18/13 08:15	06/19/13 09:01	7440-66-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.012	mg/kg	0.0076	0.0038	1	06/18/13 13:35	06/19/13 11:08	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	83-32-9	
Acenaphthylene	<20.6	ug/kg	192	20.6	1	06/18/13 11:18	06/18/13 13:31	208-96-8	
Anthracene	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	120-12-7	
Benzo(a)anthracene	<21.6	ug/kg	192	21.6	1	06/18/13 11:18	06/18/13 13:31	56-55-3	
Benzo(a)pyrene	<23.2	ug/kg	192	23.2	1	06/18/13 11:18	06/18/13 13:31	50-32-8	
Benzo(b)fluoranthene	<22.6	ug/kg	192	22.6	1	06/18/13 11:18	06/18/13 13:31	205-99-2	
Benzo(g,h,i)perylene	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	191-24-2	
Benzo(k)fluoranthene	<30.2	ug/kg	192	30.2	1	06/18/13 11:18	06/18/13 13:31	207-08-9	
4-Bromophenylphenyl ether	<20.3	ug/kg	192	20.3	1	06/18/13 11:18	06/18/13 13:31	101-55-3	
Butylbenzylphthalate	<43.2	ug/kg	192	43.2	1	06/18/13 11:18	06/18/13 13:31	85-68-7	
Carbazole	<19.8	ug/kg	192	19.8	1	06/18/13 11:18	06/18/13 13:31	86-74-8	
4-Chloro-3-methylphenol	<19.6	ug/kg	192	19.6	1	06/18/13 11:18	06/18/13 13:31	59-50-7	
4-Chloroaniline	<95.8	ug/kg	383	95.8	1	06/18/13 11:18	06/18/13 13:31	106-47-8	
bis(2-Chloroethoxy)methane	<23.1	ug/kg	192	23.1	1	06/18/13 11:18	06/18/13 13:31	111-91-1	
bis(2-Chloroethyl) ether	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	111-44-4	
2-Chloronaphthalene	<20.0	ug/kg	192	20.0	1	06/18/13 11:18	06/18/13 13:31	91-58-7	
2-Chlorophenol	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	95-57-8	
4-Chlorophenylphenyl ether	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	7005-72-3	
Chrysene	<28.0	ug/kg	192	28.0	1	06/18/13 11:18	06/18/13 13:31	218-01-9	
Dibenz(a,h)anthracene	<35.1	ug/kg	192	35.1	1	06/18/13 11:18	06/18/13 13:31	53-70-3	L2
Dibenzofuran	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	132-64-9	
1,2-Dichlorobenzene	<21.9	ug/kg	192	21.9	1	06/18/13 11:18	06/18/13 13:31	95-50-1	
1,3-Dichlorobenzene	<22.5	ug/kg	192	22.5	1	06/18/13 11:18	06/18/13 13:31	541-73-1	
1,4-Dichlorobenzene	<24.7	ug/kg	192	24.7	1	06/18/13 11:18	06/18/13 13:31	106-46-7	
3,3'-Dichlorobenzidine	<13.9	ug/kg	192	13.9	1	06/18/13 11:18	06/18/13 13:31	91-94-1	
2,4-Dichlorophenol	<16.4	ug/kg	192	16.4	1	06/18/13 11:18	06/18/13 13:31	120-83-2	
Diethylphthalate	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	84-66-2	
2,4-Dimethylphenol	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	105-67-9	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

Sample: A132503-01 Lab ID: 4079730001 Collected: 06/17/13 08:15 Received: 06/18/13 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV FULL LIST</b>									
<b>MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Dimethylphthalate	<20.1	ug/kg	192	20.1	1	06/18/13 11:18	06/18/13 13:31	131-11-3	
Di-n-butylphthalate	<32.1	ug/kg	192	32.1	1	06/18/13 11:18	06/18/13 13:31	84-74-2	
4,6-Dinitro-2-methylphenol	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	534-52-1	
2,4-Dinitrophenol	<141	ug/kg	767	141	1	06/18/13 11:18	06/18/13 13:31	51-28-5	
2,4-Dinitrotoluene	<15.1	ug/kg	192	15.1	1	06/18/13 11:18	06/18/13 13:31	121-14-2	
2,6-Dinitrotoluene	<22.1	ug/kg	192	22.1	1	06/18/13 11:18	06/18/13 13:31	606-20-2	
Di-n-octylphthalate	<20.9	ug/kg	192	20.9	1	06/18/13 11:18	06/18/13 13:31	117-84-0	
bis(2-Ethylhexyl)phthalate	<39.3	ug/kg	192	39.3	1	06/18/13 11:18	06/18/13 13:31	117-81-7	
Fluoranthene	<33.9	ug/kg	192	33.9	1	06/18/13 11:18	06/18/13 13:31	206-44-0	
Fluorene	<9.6	ug/kg	192	9.6	1	06/18/13 11:18	06/18/13 13:31	86-73-7	
Hexachloro-1,3-butadiene	<24.7	ug/kg	192	24.7	1	06/18/13 11:18	06/18/13 13:31	87-68-3	
Hexachlorobenzene	<11.3	ug/kg	192	11.3	1	06/18/13 11:18	06/18/13 13:31	118-74-1	
Hexachlorocyclopentadiene	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	77-47-4	
Hexachloroethane	<24.3	ug/kg	192	24.3	1	06/18/13 11:18	06/18/13 13:31	67-72-1	
Indeno(1,2,3-cd)pyrene	<25.7	ug/kg	192	25.7	1	06/18/13 11:18	06/18/13 13:31	193-39-5	
Isophorone	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	78-59-1	
2-Methylnaphthalene	22.2J	ug/kg	192	21.1	1	06/18/13 11:18	06/18/13 13:31	91-57-6	
2-Methylphenol(o-Cresol)	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	95-48-7	
3&4-Methylphenol(m&p Cresol)	<20.0	ug/kg	192	20.0	1	06/18/13 11:18	06/18/13 13:31		
Naphthalene	<22.4	ug/kg	192	22.4	1	06/18/13 11:18	06/18/13 13:31	91-20-3	
2-Nitroaniline	<13.9	ug/kg	192	13.9	1	06/18/13 11:18	06/18/13 13:31	88-74-4	
3-Nitroaniline	<15.2	ug/kg	192	15.2	1	06/18/13 11:18	06/18/13 13:31	99-09-2	
4-Nitroaniline	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	100-01-6	
Nitrobenzene	<22.0	ug/kg	192	22.0	1	06/18/13 11:18	06/18/13 13:31	98-95-3	
2-Nitrophenol	<22.9	ug/kg	192	22.9	1	06/18/13 11:18	06/18/13 13:31	88-75-5	
4-Nitrophenol	<37.8	ug/kg	192	37.8	1	06/18/13 11:18	06/18/13 13:31	100-02-7	
N-Nitroso-di-n-propylamine	<22.7	ug/kg	192	22.7	1	06/18/13 11:18	06/18/13 13:31	621-64-7	
N-Nitrosodiphenylamine	<26.3	ug/kg	192	26.3	1	06/18/13 11:18	06/18/13 13:31	86-30-6	
2,2'-Oxybis(1-chloropropane)	<24.5	ug/kg	192	24.5	1	06/18/13 11:18	06/18/13 13:31	108-60-1	
Pentachlorophenol	<95.8	ug/kg	380	95.8	1	06/18/13 11:18	06/18/13 13:31	87-86-5	
Phenanthrene	<95.8	ug/kg	192	95.8	1	06/18/13 11:18	06/18/13 13:31	85-01-8	
Phenol	<22.8	ug/kg	192	22.8	1	06/18/13 11:18	06/18/13 13:31	108-95-2	
Pyrene	<46.7	ug/kg	192	46.7	1	06/18/13 11:18	06/18/13 13:31	129-00-0	
Pyridine	<489	ug/kg	3830	489	1	06/18/13 11:18	06/18/13 13:31	110-86-1	
1,2,4-Trichlorobenzene	<10.6	ug/kg	192	10.6	1	06/18/13 11:18	06/18/13 13:31	120-82-1	
2,4,5-Trichlorophenol	<12.6	ug/kg	192	12.6	1	06/18/13 11:18	06/18/13 13:31	95-95-4	
2,4,6-Trichlorophenol	<21.2	ug/kg	192	21.2	1	06/18/13 11:18	06/18/13 13:31	88-06-2	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	58 %		40-130		1	06/18/13 11:18	06/18/13 13:31	4165-60-0	
2-Fluorobiphenyl (S)	59 %		53-130		1	06/18/13 11:18	06/18/13 13:31	321-60-8	
Terphenyl-d14 (S)	48 %		36-162		1	06/18/13 11:18	06/18/13 13:31	1718-51-0	
Phenol-d6 (S)	52 %		30-130		1	06/18/13 11:18	06/18/13 13:31	13127-88-3	
2-Fluorophenol (S)	52 %		28-130		1	06/18/13 11:18	06/18/13 13:31	367-12-4	
2,4,6-Tribromophenol (S)	17 %		18-130		1	06/18/13 11:18	06/18/13 13:31	118-79-6	S0

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

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**Sample: A132503-01**      **Lab ID: 4079730001**      Collected: 06/17/13 08:15      Received: 06/18/13 09:15      Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>13.1</b>	%	0.10	0.10	1		06/18/13 13:16		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

QC Batch:	MERP/3703	Analysis Method:	EPA 7471
QC Batch Method:	EPA 7471	Analysis Description:	7471 Mercury
Associated Lab Samples:	4079730001		

METHOD BLANK: 809851 Matrix: Solid

Associated Lab Samples: 4079730001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	06/19/13 11:04	

LABORATORY CONTROL SAMPLE: 809852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.17	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 809853 809854

Parameter	Units	809853		809854		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		4079730001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.012	.18	.2	0.19	0.19	97	96	85-115	0	20

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### QUALITY CONTROL DATA

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

QC Batch: MPRP/8645 Analysis Method: EPA 6010  
QC Batch Method: EPA 3050 Analysis Description: 6010 MET  
Associated Lab Samples: 4079730001

METHOD BLANK: 809684 Matrix: Solid

Associated Lab Samples: 4079730001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	mg/kg	<6.7	50.0	06/19/13 08:57	
Arsenic	mg/kg	<0.54	2.0	06/19/13 08:57	
Barium	mg/kg	<0.087	0.50	06/19/13 08:57	
Cadmium	mg/kg	<0.051	0.50	06/19/13 08:57	
Chromium	mg/kg	<0.13	0.50	06/19/13 08:57	
Copper	mg/kg	<0.16	1.0	06/19/13 08:57	
Lead	mg/kg	<0.29	1.0	06/19/13 08:57	
Nickel	mg/kg	<0.11	1.0	06/19/13 08:57	
Selenium	mg/kg	<0.59	2.0	06/19/13 08:57	
Silver	mg/kg	<0.21	1.0	06/19/13 08:57	
Zinc	mg/kg	<0.27	4.0	06/19/13 08:57	

LABORATORY CONTROL SAMPLE: 809685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/kg	500	489	98	80-120	
Arsenic	mg/kg	50	47.3	95	80-120	
Barium	mg/kg	50	48.4	97	80-120	
Cadmium	mg/kg	50	47.4	95	80-120	
Chromium	mg/kg	50	48.2	96	80-120	
Copper	mg/kg	50	47.3	95	80-120	
Lead	mg/kg	50	48.6	97	80-120	
Nickel	mg/kg	50	49.2	98	80-120	
Selenium	mg/kg	50	48.0	96	80-120	
Silver	mg/kg	25	23.4	94	80-120	
Zinc	mg/kg	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 809686 809687

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		4079730001 Result	Spike Conc.	Spike Conc.	Result							
Aluminum	mg/kg	15700	575	572	18900	19200	550	614	75-125	2	20	P6
Arsenic	mg/kg	6.5	57.5	57.2	55.9	55.6	86	86	75-125	0	20	
Barium	mg/kg	59.5	57.5	57.2	115	117	96	101	75-125	2	20	
Cadmium	mg/kg	0.33J	57.5	57.2	51.1	51.1	88	89	75-125	0	20	
Chromium	mg/kg	22.7	57.5	57.2	73.4	73.7	88	89	75-125	0	20	
Copper	mg/kg	20.5	57.5	57.2	70.9	71.4	88	89	75-125	1	20	
Lead	mg/kg	7.3	57.5	57.2	54.5	54.5	82	83	75-125	0	20	
Nickel	mg/kg	24.9	57.5	57.2	72.1	72.6	82	83	75-125	1	20	
Selenium	mg/kg	<0.68	57.5	57.2	48.5	48.8	84	85	75-125	1	20	

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### QUALITY CONTROL DATA

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			809686		809687							
Parameter	Units	4079730001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Silver	mg/kg	<0.25	28.8	28.6	25.1	25.4	87	89	75-125	1	20	
Zinc	mg/kg	37.6	57.5	57.2	87.7	86.5	87	86	75-125	1	20	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

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QC Batch:	PMST/8584	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	4079730001		

---

SAMPLE DUPLICATE: 809919

Parameter	Units	4079739003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.1	6.9	2	10	

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

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### 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.

### ANALYTE QUALIFIERS

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

S0 Surrogate recovery outside laboratory control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A132503 FORMER WABASH ALLOYS

Pace Project No.: 4079730

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4079730001	A132503-01	EPA 3050	MPRP/8645	EPA 6010	ICP/7684
4079730001	A132503-01	EPA 7471	MERP/3703	EPA 7471	MERC/4616
4079730001	A132503-01	EPA 3546	OEXT/18627	EPA 8270	MSSV/5761
4079730001	A132503-01	ASTM D2974-87	PMST/8584		

### REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

4079730

ECCS  
A132503

JJK

SENDING LABORATORY:

ECCS  
2525 Advance Road  
Madison, WI 53718  
Phone: 608.221.8700  
Fax: 608,221,4889  
Project Manager: Jessica Esser

RECEIVING LABORATORY:

Pace Analytical  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302  
Phone : (920) 469-2436  
Fax: (920) 469-8827

Turn around Time:  Normal

Project Name: Former Wabash Alloys (Connell) - Oak Creek, WI

Rush **Due 06-19-13**

001

Lab ID: A132503-01	Soil	Sampled: 06/17/2013 08:15	Laboratory ID	Comments
Subcontracted SVOC RCRA Metals <i>Containers Supplied:</i> 03 4oz WM Amber Glass				1-4ozag <sup>A</sup> TCL3.4 plus al, cu, ni, zn

*Jessica Esser* 06-17-13 1600

Released By

Date

Received By

Date

*Kunham*

6-18-13 0915

*Susan Kuyler Pace* 6/18/13 0915

Released By

Date

Received By

Date



**Sample Condition Upon Receipt**

Client Name: ECCS Project # 4079730/4  
409939

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_  
Tracking #: 02017960 2033 3990  
Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
Custody Seal on Samples Present:  yes  no Seals intact:  yes  no  
Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_  
Thermometer Used NA Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun  
Cooler Temperature Uncorr: 20 /Corr: \_\_\_\_\_ Biological Tissue is Frozen:  yes  no  
Temp Blank Present:  yes  no  no

Person examining content  
Date: 6/18/13  
Initials: MV

Temp should be above freezing to 6°C for all sample except Biota.  
Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4. <u>No name 6/18/13 MV</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAc
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAc ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comment

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: CH & DM

Date: 6/18/13





Consulting Services, Inc.  
 2525 Advance Road  
 Madison, WI 53718  
 608-221-8700 (phone)  
 608-221-4889 (fax)

# 2095 06/17/13 101

Project Number: 2095

Project Name: Former Wabash Alloys - Connell property

Project Location: Oak Creek, WI

Turn Around (check one):  Normal  1-2 BDS  3 BDS  2 BDS  24 hrs

If Rush Report Due Date: 6/19/13 ?

Sampled By (Print): Ricky J Guenther Jr.

Sample Description	Collection		Matrix	Total # of Containers	RCBs method 8082	RCRA Metals	Date	Time	Received By:	Date:	Time:	Lab ID	Lab Receipt Time
	Date	Time											
Fill 02 001	6/17	8:15	S	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							
			S		<input type="checkbox"/>	<input type="checkbox"/>							

Comments: 3-4oz bag A

Relinquished By: [Signature]

Relinquished Date: 6/17/13 Time: 1:30

Received By: [Signature]

Received Date: 6/18/13 Time: 9:15

Seal #: [Blank]

Shipped Via: [Signature]

Receipt Temp: 30

Date: 6/18/13 Time: 9:15

Temp Blank:  Y  N

Preservation Codes: A=None B=HCL C=H<sub>2</sub>SO<sub>4</sub> D=HNO<sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)

Matrix Codes: A=Air S=Soil W=Water O=Other

Rush TAT Multipliers: 5 Business Days = 1.5x, 3 Business Days = 2x, 2 Business Days = 2.25x, 24 Hours = 2.5x. \*must be pre-arranged\*

Custody Seal:  Present  Absent  Intact  Not Intact

WHITE - REPORT COPY YELLOW - LABORATORY COPY PINK - SAMPLER/SUBMITTER

Download this form at www.eccsmobilab.com



**Sample Condition Upon Receipt**

Client Name: ECCS Project # 4079730

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other Dunham  
Tracking #: 537550

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

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR23 Type of Ice: Wet Blue Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 20 / Corr: 20 Biological Tissue is Frozen:  yes

Temp Blank Present:  yes  no  no

Person examining content

Date: 6-18-13

Initials: SPW

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>4/18/13</u> Date/Time:	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>6/19/13 TAT requested 6/18/13</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ if checked, see attached form for additional comment

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_