



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)

July 8, 2013  
(2095)

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

Dear Eric:

As requested in the Department's June 26, 2013 letter and as part of our request for approval of the Emerald Park landfill clay borrow source, we are providing the results of two additional soil samples collected on June 26, 2013 (Fill 02A and 02B) from the proposed borrow source. These two additional samples supplement the one sample collected on June 17, 2013 (Fill 02) for a total of three samples; the results of which are shown on Table 1. The three samples were collected approximately 25 to 40 feet apart, and provide representative samples of the clay soil proposed as fill material for the former Wabash Alloys facility/Connell property. Since we are planning to bring in as much as 3,000 cubic yards, the three samples satisfy a sampling frequency of one every 1,000 cubic yards.

The results of the three samples are consistent and together with the information provided in our June 20, 2013 Request for Approval letter, we look forward to the Department's response to our request.

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 that reads "Julie A. Zimdars". The signature is fluid and cursive.

Julie A. Zimdars, PE  
Senior Engineer

Attachments: Table 1 – Borrow Source Analytical Table  
Laboratory Analytical Report – Sample Fill 02A and 02B

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 130705]

WWW.NATURALRT.COM

**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>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>	<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>	<i>15,700</i>	<i>59.5</i>	<i>0.33 Q</i>	<i>22.7</i>	<i>20.5</i>	<i>7.3</i>	<i>24.9</i>	<0.68	<0.25	<i>37.6</i>	<i>0.012</i>	<0.0085	<0.0072	<0.0081	<0.0051	<0.0061	<0.0051	<0.0028	<0.0028
FILL02A	Emerald Park Landfill	Emerald Park Landfill	6/26/13	1500	<0.017	<0.017	<0.017	<0.033	<0.033	<b>6.3<sup>5</sup></b>	<i>24,400</i>	<i>94.3</i>	<i>0.34</i>	<i>35.1</i>	<i>26.2</i>	<i>8.1</i>	<i>36.9</i>	<0.71	<0.26	<i>50.9</i>	<i>0.016</i>	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059
FILL02B	Emerald Park Landfill	Emerald Park Landfill	6/26/13	1505	<0.017	<0.017	<0.017	<0.033	<0.033	<b>6.0<sup>5</sup></b>	<i>17,300</i>	<i>68.4</i>	<i>0.31</i>	<i>24.5</i>	<i>24.3</i>	<i>7.2</i>	<i>26.0</i>	<0.59	<0.21	<i>39.3</i>	<i>0.013</i>	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060

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
FILL02A	Emerald Park Landfill	Emerald Park Landfill	6/26/13	1500	<0.101	<0.0217	<0.101	<0.0228	<0.0239	<0.0319	<0.0245	<0.101	<0.0295	<0.037	<0.0358	<0.0102	<0.0271	<0.0236	<0.101	<0.0492	<0.0223	<0.101	<0.024
FILL02B	Emerald Park Landfill	Emerald Park Landfill	6/26/13	1505	<0.0988	<0.0212	<0.0988	<0.0223	<0.0233	<0.0312	<0.024	<0.0988	<0.0288	<0.0362	<0.035	<0.0099	<0.0265	<0.0231	<0.0988	<0.0481	0.0657	0.0657	<0.0235

[OB: RJG 6/3/13; CB JAZ 6/3/13, RJG/ 06/19/13, CB JAZ 6/20/13, RJG/KMJ 07/03/13]

- 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*, *FILL02A*, and *FILL02B* 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*, *FILL02A*, and *FILL02B* 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.



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03 July 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 06/28/2013.

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,

Kari Boatman For 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	06/30/2014
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2014
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2013



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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:  
07/03/2013

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fill 02A	A132617-01	Soil	06/26/2013	06/28/2013
Fill 02B	A132617-02	Soil	06/26/2013	06/28/2013

The E1 footnote on samples A132617-01 and A132617-02 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/or had poor recoveries in matrix spike/matrix spike duplicate samples. These compounds often exhibit poor quality control results for soil samples with methanol preservation.

Continuing calibration verification (CCV) indicates a potential high bias for methylene chloride and n-hexane for samples A132617-01 and A132617-02. Samples were less than the reporting limit for these analytes so no further action is required.

The laboratory control sample (LCS) recovery indicates a potential high bias for n-hexane for samples A132617-01 and A132617-02. Samples were less than the reporting limit for these analytes so no further action is required.



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Milwaukee WI, 53204

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

Reported:  
07/03/2013

**Fill 02A**  
**A132617-01 (Soil)**

**Date Sampled**  
**06/26/2013 15:00**

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:A306108**

PCB-1016	ND	0.0088	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1221	ND	0.0075	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1232	ND	0.0083	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1242	ND	0.0052	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1248	ND	0.0063	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1254	ND	0.0052	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
PCB-1260	ND	0.0028	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	
Total PCBs	ND	0.0028	0.059	mg/kg dry	1	06/28/2013	06/28/2013 20:40	EPA 8082A	

Surrogate: Decachlorobiphenyl

85.3 % 59.1-127

06/28/2013 06/28/2013 20:40

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

98.5 % 77.4-119

06/28/2013 06/28/2013 20:40

EPA 8082A

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

**Preparation Batch:A307005**

Acetone	ND		660	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Bromobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Bromochloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Bromodichloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Bromoform	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Bromomethane	ND		170	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	E1
2-Butanone	ND		660	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
n-Butyl Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
sec-Butyl Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
tert-Butylbenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Carbon disulfide	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Carbon tetrachloride	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Chlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Chloroethane	ND		170	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	E1
Chloroform	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Chloromethane	ND		33	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
2-Chlorotoluene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
4-Chlorotoluene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Dibromochloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
1,2-Dibromoethane (EDB)	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Dibromomethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
1,2-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
1,4-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
1,3-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Dichlorodifluoromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	



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

Reported:  
07/03/2013

**Fill 02A**  
**A132617-01 (Soil)**

Date Sampled  
06/26/2013 15:00

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:A307005**

1,1-Dichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2-Dichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
trans-1,2-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
cis-1,2-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
2,2-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,3-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
cis-1,3-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
trans-1,3-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Diisopropyl Ether	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Ethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Hexachlorobutadiene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
n-Hexane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
2-Hexanone	ND	660	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Isopropylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
p-Isopropyltoluene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Methylene chloride	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
4-Methyl-2-pentanone	ND	660	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Methyl t-Butyl Ether	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Naphthalene	ND	170	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
n-Propyl Benzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Styrene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1,1,2-Tetrachloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1,2,2-Tetrachloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Tetrachloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Tetrahydrofuran	ND	330	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Toluene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2,3-Trichlorobenzene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2,4-Trichlorobenzene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1,1-Trichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1,2-Trichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Trichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
Trichlorofluoromethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2,3-Trichloropropane	ND	33	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,1,2-Trichlorotrifluoroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,3,5-Trimethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B
1,2,4-Trimethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	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:  
07/03/2013

**Fill 02A**  
**A132617-01 (Soil)**

Date Sampled  
06/26/2013 15:00

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:A307005**

Vinyl chloride	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
m,p-Xylene	ND		33	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
o-Xylene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:06	EPA 8260B	
Surrogate: Dibromofluoromethane			102 %	80.4-125		07/02/2013	07/02/2013 19:06	EPA 8260B	
Surrogate: Toluene-d8			97.7 %	94.1-107		07/02/2013	07/02/2013 19:06	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.8 %	90.3-110		07/02/2013	07/02/2013 19:06	EPA 8260B	

**Classical Chemistry Parameters**

**Preparation Batch:A306109**

% Solids	84.5		0.00	% by Weight	1	06/28/2013	07/01/2013 09:17	SM 2540B	
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**Pace Analytical**

**ASTM D2974-87**

**Preparation Batch:PMST 8623**

Percent Moisture	17.5	0.10	0.10	% dry	1	07/01/2013	07/01/2013 11:13	ASTM D2974-87	
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**EPA 6010**

**Preparation Batch:MPRP 8727**

Aluminum	24400	8.1	60.4	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	P6
Arsenic	6.3	0.65	2.4	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Barium	94.3	0.10	0.60	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Cadmium	0.34	0.061	0.60	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	J
Chromium	35.1	0.15	0.60	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Copper	26.2	0.20	1.2	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Lead	8.1	0.35	1.2	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Nickel	36.9	0.13	1.2	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Selenium	ND	0.71	2.4	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Silver	ND	0.26	1.2	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	
Zinc	50.9	0.32	4.8	mg/kg dry	1	07/01/2013	07/02/2013 12:05	EPA 6010	

**EPA 7471**

**Preparation Batch:MERP 3727**

Mercury	0.016	0.0037	0.0074	mg/kg dry	1	07/01/2013	07/02/2013 12:00	EPA 7471	
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**EPA 8270**

**Preparation Batch:OEXT 18842**

1,2,4-Trichlorobenzene	ND	11.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
1,2-Dichlorobenzene	ND	23.1	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
1,3-Dichlorobenzene	ND	23.7	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
1,4-Dichlorobenzene	ND	26.1	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,2'-Oxybis(1-chloropropane)	ND	25.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,4,5-Trichlorophenol	ND	13.3	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,4,6-Trichlorophenol	ND	22.3	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,4-Dichlorophenol	ND	17.3	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	



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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:  
07/03/2013

**Fill 02A**  
**A132617-01 (Soil)**

Date Sampled  
06/26/2013 15:00

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 18842**

2,4-Dimethylphenol	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,4-Dinitrophenol	ND	149	809	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,4-Dinitrotoluene	ND	15.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2,6-Dinitrotoluene	ND	23.4	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Chloronaphthalene	ND	21.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Chlorophenol	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Methylnaphthalene	ND	22.3	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Methylphenol(o-Cresol)	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Nitroaniline	ND	14.6	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
2-Nitrophenol	ND	24.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
3&4-Methylphenol(m&p Cresol)	ND	21.1	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
3,3'-Dichlorobenzidine	ND	14.7	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
3-Nitroaniline	ND	16.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4,6-Dinitro-2-methylphenol	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Bromophenylphenyl ether	ND	21.4	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Chloro-3-methylphenol	ND	20.6	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Chloroaniline	ND	101	404	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Chlorophenylphenyl ether	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Nitroaniline	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
4-Nitrophenol	ND	39.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Acenaphthene	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Acenaphthylene	ND	21.7	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Anthracene	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Benzo(a)anthracene	ND	22.8	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Benzo(a)pyrene	ND	24.5	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Benzo(b)fluoranthene	ND	23.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Benzo(g,h,i)perylene	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Benzo(k)fluoranthene	ND	31.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Butylbenzylphthalate	ND	45.5	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Carbazole	ND	20.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Chrysene	ND	29.5	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Di-n-butylphthalate	ND	33.8	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Di-n-octylphthalate	ND	22.1	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Dibenz(a,h)anthracene	ND	37.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	L2
Dibenzofuran	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Diethylphthalate	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Dimethylphthalate	ND	21.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Fluoranthene	ND	35.8	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Fluorene	ND	10.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	





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 Project Number: 2095  
 Project Manager: Jody Barbeau

Reported:  
 07/03/2013

**Fill 02A**  
**A132617-01 (Soil)**

Date Sampled  
 06/26/2013 15:00

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 18842**

Hexachloro-1,3-butadiene	ND	26.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Hexachlorobenzene	ND	11.9	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Hexachlorocyclopentadiene	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Hexachloroethane	ND	25.6	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Indeno(1,2,3-cd)pyrene	ND	27.1	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Isophorone	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
N-Nitroso-di-n-propylamine	ND	24.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
N-Nitrosodiphenylamine	ND	27.8	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Naphthalene	ND	23.6	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Nitrobenzene	ND	23.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Pentachlorophenol	ND	101	400	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Phenanthrene	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Phenol	ND	24.0	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Pyrene	ND	49.2	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Pyridine	ND	516	4040	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
bis(2-Chloroethoxy)methane	ND	24.4	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
bis(2-Chloroethyl) ether	ND	101	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
bis(2-Ethylhexyl)phthalate	ND	41.4	202	ug/kg dry	1	07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: 2,4,6-Tribromophenol (S)			75 %	18-130		07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: 2-Fluorobiphenyl (S)			82 %	53-130		07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: 2-Fluorophenol (S)			72 %	28-130		07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: Nitrobenzene-d5 (S)			82 %	40-130		07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: Phenol-d6 (S)			70 %	30-130		07/02/2013	07/02/2013 12:44	EPA 8270	
Surrogate: Terphenyl-d14 (S)			102 %	36-162		07/02/2013	07/02/2013 12:44	EPA 8270	



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Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
07/03/2013

**Fill 02B**  
**A132617-02 (Soil)**

Date Sampled  
06/26/2013 15:05

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:A306108**

PCB-1016	ND	0.0088	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1221	ND	0.0075	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1232	ND	0.0084	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1242	ND	0.0053	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1248	ND	0.0063	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1254	ND	0.0053	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
PCB-1260	ND	0.0029	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
Total PCBs	ND	0.0029	0.060	mg/kg dry	1	06/28/2013	06/28/2013 21:07	EPA 8082A	
Surrogate: Decachlorobiphenyl			77.6 %	59.1-127		06/28/2013	06/28/2013 21:07	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			92.9 %	77.4-119		06/28/2013	06/28/2013 21:07	EPA 8082A	

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

**Preparation Batch:A307005**

Acetone	ND		660	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Bromobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Bromochloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Bromodichloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Bromoform	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Bromomethane	ND		170	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	E1
2-Butanone	ND		660	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
n-Butyl Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
sec-Butyl Benzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
tert-Butylbenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Carbon disulfide	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Carbon tetrachloride	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Chlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Chloroethane	ND		170	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	E1
Chloroform	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Chloromethane	ND		33	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
2-Chlorotoluene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
4-Chlorotoluene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Dibromochloromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,2-Dibromoethane (EDB)	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Dibromomethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,2-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,4-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,3-Dichlorobenzene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Dichlorodifluoromethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
1,1-Dichloroethane	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	



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 Project Number: 2095  
 Project Manager: Jody Barbeau

Reported:  
 07/03/2013

**Fill 02B**  
**A132617-02 (Soil)**

Date Sampled  
 06/26/2013 15:05

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:A307005**

1,2-Dichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
trans-1,2-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
cis-1,2-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1-Dichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
2,2-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,2-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,3-Dichloropropane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
cis-1,3-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
trans-1,3-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1-Dichloropropene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Diisopropyl Ether	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Ethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Hexachlorobutadiene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
n-Hexane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
2-Hexanone	ND	660	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Isopropylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
p-Isopropyltoluene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Methylene chloride	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
4-Methyl-2-pentanone	ND	660	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Methyl t-Butyl Ether	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Naphthalene	ND	170	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
n-Propyl Benzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Styrene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1,1,2-Tetrachloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1,2,2-Tetrachloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Tetrachloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Tetrahydrofuran	ND	330	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Toluene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,2,3-Trichlorobenzene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,2,4-Trichlorobenzene	ND	66	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1,1-Trichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1,2-Trichloroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Trichloroethene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Trichlorofluoromethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,2,3-Trichloropropane	ND	33	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,1,2-Trichlorotrifluoroethane	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,3,5-Trimethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
1,2,4-Trimethylbenzene	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B
Vinyl chloride	ND	17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B



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 Project Number: 2095  
 Project Manager: Jody Barbeau

Reported:  
 07/03/2013

**Fill 02B**  
**A132617-02 (Soil)**

Date Sampled  
 06/26/2013 15:05

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:A307005

m,p-Xylene	ND		33	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
o-Xylene	ND		17	ug/kg dry	1	07/02/2013	07/02/2013 19:33	EPA 8260B	
Surrogate: Dibromofluoromethane			101 %	80.4-125		07/02/2013	07/02/2013 19:33	EPA 8260B	
Surrogate: Toluene-d8			99.0 %	94.1-107		07/02/2013	07/02/2013 19:33	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			96.3 %	90.3-110		07/02/2013	07/02/2013 19:33	EPA 8260B	

**Classical Chemistry Parameters**

Preparation Batch:A306109

% Solids	83.7		0.00	% by Weight	1	06/28/2013	07/01/2013 09:17	SM 2540B	
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**Pace Analytical**

**ASTM D2974-87**

Preparation Batch:PMST 8623

Percent Moisture	15.7	0.10	0.10	% dry	1	07/01/2013	07/01/2013 11:13	ASTM D2974-87	
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**EPA 6010**

Preparation Batch:MPRP 8727

Aluminum	17300	6.7	50.2	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Arsenic	6.0	0.54	2.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Barium	68.4	0.087	0.50	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Cadmium	0.31	0.051	0.50	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	J
Chromium	24.5	0.13	0.50	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Copper	24.3	0.16	1.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Lead	7.2	0.29	1.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Nickel	26.0	0.11	1.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Selenium	ND	0.59	2.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Silver	ND	0.21	1.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	
Zinc	39.3	0.27	4.0	mg/kg dry	1	07/01/2013	07/02/2013 12:16	EPA 6010	

**EPA 7471**

Preparation Batch:MERP 3727

Mercury	0.013	0.0035	0.0070	mg/kg dry	1	07/01/2013	07/02/2013 12:02	EPA 7471	
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**EPA 8270**

Preparation Batch:OEXT 18842

1,2,4-Trichlorobenzene	ND	10.9	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
1,2-Dichlorobenzene	ND	22.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
1,3-Dichlorobenzene	ND	23.2	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
1,4-Dichlorobenzene	ND	25.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,2'-Oxybis(1-chloropropane)	ND	25.3	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,4,5-Trichlorophenol	ND	13.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,4,6-Trichlorophenol	ND	21.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,4-Dichlorophenol	ND	16.9	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,4-Dimethylphenol	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	



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Project Number: 2095  
Project Manager: Jody Barbeau

Reported:  
07/03/2013

**Fill 02B**  
**A132617-02 (Soil)**

Date Sampled  
06/26/2013 15:05

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 18842**

2,4-Dinitrophenol	ND	145	791	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,4-Dinitrotoluene	ND	15.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2,6-Dinitrotoluene	ND	22.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2-Chloronaphthalene	ND	20.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2-Chlorophenol	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
<b>2-Methylnaphthalene</b>	<b>65.7</b>	21.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	J
2-Methylphenol(o-Cresol)	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2-Nitroaniline	ND	14.3	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
2-Nitrophenol	ND	23.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
3&4-Methylphenol(m&p Cresol)	ND	20.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
3,3'-Dichlorobenzidine	ND	14.3	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
3-Nitroaniline	ND	15.7	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4,6-Dinitro-2-methylphenol	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Bromophenylphenyl ether	ND	21.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Chloro-3-methylphenol	ND	20.2	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Chloroaniline	ND	98.8	395	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Chlorophenylphenyl ether	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Nitroaniline	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
4-Nitrophenol	ND	39.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Acenaphthene	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Acenaphthylene	ND	21.2	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Anthracene	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Benzo(a)anthracene	ND	22.3	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Benzo(a)pyrene	ND	24.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Benzo(b)fluoranthene	ND	23.3	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Benzo(g,h,i)perylene	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Benzo(k)fluoranthene	ND	31.2	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Butylbenzylphthalate	ND	44.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Carbazole	ND	20.4	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Chrysene	ND	28.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Di-n-butylphthalate	ND	33.1	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Di-n-octylphthalate	ND	21.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Dibenz(a,h)anthracene	ND	36.2	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	L2
Dibenzofuran	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Diethylphthalate	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Dimethylphthalate	ND	20.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Fluoranthene	ND	35.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Fluorene	ND	9.9	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Hexachloro-1,3-butadiene	ND	25.4	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	



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 Project Number: 2095  
 Project Manager: Jody Barbeau

Reported:  
 07/03/2013

**Fill 02B**  
**A132617-02 (Soil)**

Date Sampled  
 06/26/2013 15:05

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 18842**

Hexachlorobenzene	ND	11.6	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Hexachlorocyclopentadiene	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Hexachloroethane	ND	25.0	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Indeno(1,2,3-cd)pyrene	ND	26.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Isophorone	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
N-Nitroso-di-n-propylamine	ND	23.4	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
N-Nitrosodiphenylamine	ND	27.1	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Naphthalene	ND	23.1	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Nitrobenzene	ND	22.7	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Pentachlorophenol	ND	98.8	391	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Phenanthrene	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Phenol	ND	23.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Pyrene	ND	48.1	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Pyridine	ND	504	3950	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
bis(2-Chloroethoxy)methane	ND	23.9	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
bis(2-Chloroethyl) ether	ND	98.8	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
bis(2-Ethylhexyl)phthalate	ND	40.5	198	ug/kg dry	1	07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: 2,4,6-Tribromophenol (S)			83 %	18-130		07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: 2-Fluorobiphenyl (S)			81 %	53-130		07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: 2-Fluorophenol (S)			74 %	28-130		07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: Nitrobenzene-d5 (S)			82 %	40-130		07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: Phenol-d6 (S)			73 %	30-130		07/02/2013	07/02/2013 13:14	EPA 8270	
Surrogate: Terphenyl-d14 (S)			106 %	36-162		07/02/2013	07/02/2013 13:14	EPA 8270	



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Reported:  
 07/03/2013

**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 A306108 - EPA 3570**

**Blank (A306108-BLK1)**

Prepared: 06/28/2013 Analyzed: 06/28/2013 20:12

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		88.5	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.118		mg/kg wet	0.1200		98.6	77.4-119			

**LCS (A306108-BS1)**

Prepared: 06/28/2013 Analyzed: 06/28/2013 19:45

PCB-1248	0.943	0.050	mg/kg wet	1.000		94.3	76.6-122			
Surrogate: Decachlorobiphenyl	0.104		mg/kg wet	0.1200		86.3	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.117		mg/kg wet	0.1200		97.5	77.4-119			

**Matrix Spike (A306108-MS1)**

Source: A132617-01

Prepared: 06/28/2013 Analyzed: 06/28/2013 21:34

PCB-1248	1.08	0.059	mg/kg dry	1.184	ND	91.6	58.6-140			
Surrogate: Decachlorobiphenyl	0.120		mg/kg dry	0.1421		84.4	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.138		mg/kg dry	0.1421		97.2	77.4-119			

**Matrix Spike Dup (A306108-MSD1)**

Source: A132617-01

Prepared: 06/28/2013 Analyzed: 06/28/2013 22:01

PCB-1248	1.09	0.059	mg/kg dry	1.184	ND	92.3	58.6-140	0.747	20	
Surrogate: Decachlorobiphenyl	0.122		mg/kg dry	0.1421		85.5	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.139		mg/kg dry	0.1421		97.5	77.4-119			



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Project Manager: Jody Barbeau

Reported:  
07/03/2013

**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 A307005 - EPA 5030B**

**Blank (A307005-BLK1)**

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:00

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	85	25	ug/kg wet							
2-Hexanone	ND	1000	ug/kg wet							
Isopropylbenzene	ND	25	ug/kg wet							





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Reported:  
07/03/2013

**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 A307005 - EPA 5030B**

**Blank (A307005-BLK1)**

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:00

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>	25.0		ug/L	25.00		99.8	80.4-125			
<i>Surrogate: Toluene-d8</i>	24.7		ug/L	25.00		98.9	94.1-107			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.2		ug/L	25.00		96.7	90.3-110			

**LCS (A307005-BS1)**

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:26

Acetone	46.9		ug/L	50.00		93.8	46.4-160			
Benzene	5.02		ug/L	5.000		100	73.7-133			
Bromobenzene	4.97		ug/L	5.000		99.4	89-114			
Bromochloromethane	5.34		ug/L	5.000		107	77.3-135			
Bromodichloromethane	4.43		ug/L	5.000		88.6	71.9-126			
Bromoform	5.06		ug/L	5.000		101	58-129			
Bromomethane	5.64		ug/L	5.000		113	16.5-194			
2-Butanone	45.4		ug/L	50.00		90.7	70-131			
n-Butyl Benzene	5.34		ug/L	5.000		107	87.8-125			
sec-Butyl Benzene	5.45		ug/L	5.000		109	86.5-124			
tert-Butylbenzene	5.39		ug/L	5.000		108	86-122			
Carbon disulfide	5.18		ug/L	5.000		104	77.6-122			
Carbon tetrachloride	4.80		ug/L	5.000		96.0	79.7-115			
Chlorobenzene	5.23		ug/L	5.000		105	91.8-114			



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Milwaukee WI, 53204

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

Reported:  
07/03/2013

**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 A307005 - EPA 5030B**

**LCS (A307005-BS1)**

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:26

Chloroethane	5.01		ug/L	5.000		100	30.5-198			
Chloroform	4.74		ug/L	5.000		94.8	78.1-130			
Chloromethane	5.47		ug/L	5.000		109	71.8-123			
2-Chlorotoluene	5.14		ug/L	5.000		103	94.9-114			
4-Chlorotoluene	5.19		ug/L	5.000		104	85.1-122			
1,2-Dibromo-3-chloropropane	5.82		ug/L	5.000		116	55.1-136			
Dibromochloromethane	4.64		ug/L	5.000		92.8	70.4-124			
1,2-Dibromoethane (EDB)	5.01		ug/L	5.000		100	83.4-125			
Dibromomethane	4.70		ug/L	5.000		94.0	79.6-124			
1,2-Dichlorobenzene	5.20		ug/L	5.000		104	93.3-115			
1,4-Dichlorobenzene	4.92		ug/L	5.000		98.4	83.4-121			
1,3-Dichlorobenzene	5.17		ug/L	5.000		103	92.6-115			
Dichlorodifluoromethane	4.70		ug/L	5.000		94.0	73.4-130			
1,1-Dichloroethane	5.28		ug/L	5.000		106	81.6-129			
1,2-Dichloroethane	4.87		ug/L	5.000		97.4	67.8-139			
trans-1,2-Dichloroethene	5.38		ug/L	5.000		108	85.2-123			
cis-1,2-Dichloroethene	5.42		ug/L	5.000		108	86-121			
1,1-Dichloroethene	5.09		ug/L	5.000		102	78.2-118			
2,2-Dichloropropane	4.58		ug/L	5.000		91.6	60.6-131			
1,2-Dichloropropane	4.81		ug/L	5.000		96.2	84.5-117			
1,3-Dichloropropane	4.93		ug/L	5.000		98.6	84.6-119			
cis-1,3-Dichloropropene	4.72		ug/L	5.000		94.4	77.3-124			
trans-1,3-Dichloropropene	4.60		ug/L	5.000		92.0	71.7-127			
1,1-Dichloropropene	5.44		ug/L	5.000		109	78.3-134			
Diisopropyl Ether	5.52		ug/L	5.000		110	81.8-124			
Ethylbenzene	5.17		ug/L	5.000		103	87.8-122			
Hexachlorobutadiene	5.44		ug/L	5.000		109	82.4-120			
n-Hexane	6.89		ug/L	5.000		138	77.5-125			B
2-Hexanone	47.7		ug/L	50.00		95.5	73.5-126			
Isopropylbenzene	5.14		ug/L	5.000		103	88.7-122			
p-Isopropyltoluene	5.44		ug/L	5.000		109	89.1-124			
Methylene chloride	4.86		ug/L	5.000		97.2	70.6-131			
4-Methyl-2-pentanone	47.1		ug/L	50.00		94.2	75.5-127			
Methyl t-Butyl Ether	4.92		ug/L	5.000		98.4	75-131			
Naphthalene	5.18		ug/L	5.000		104	69.8-117			
n-Propyl Benzene	5.18		ug/L	5.000		104	80.7-127			
Styrene	5.28		ug/L	5.000		106	89.3-115			
1,1,1,2-Tetrachloroethane	4.92		ug/L	5.000		98.4	86.8-113			
1,1,2,2-Tetrachloroethane	5.22		ug/L	5.000		104	79.1-125			
Tetrachloroethene	4.97		ug/L	5.000		99.4	78.3-123			
Tetrahydrofuran	27.1		ug/L	25.00		108	62.7-143			
Toluene	5.03		ug/L	5.000		101	76.3-120			
1,2,3-Trichlorobenzene	5.54		ug/L	5.000		111	83-121			
1,2,4-Trichlorobenzene	5.34		ug/L	5.000		107	86.3-117			



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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 A307005 - EPA 5030B**

**LCS (A307005-BS1)**

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:26

1,1,1-Trichloroethane	4.90		ug/L	5.000		98.0	84.6-121			
1,1,2-Trichloroethane	5.15		ug/L	5.000		103	83.4-120			
Trichloroethene	4.91		ug/L	5.000		98.2	85.4-117			
Trichlorofluoromethane	5.77		ug/L	5.000		115	48.3-162			
1,2,3-Trichloropropane	4.67		ug/L	5.000		93.4	74.3-125			
1,1,2-Trichlorotrifluoroethane	5.29		ug/L	5.000		106	75.6-132			
1,3,5-Trimethylbenzene	5.31		ug/L	5.000		106	88-122			
1,2,4-Trimethylbenzene	5.43		ug/L	5.000		109	83.2-122			
Vinyl chloride	5.23		ug/L	5.000		105	73.2-134			
m,p-Xylene	10.6		ug/L	10.00		106	89.8-118			
o-Xylene	5.06		ug/L	5.000		101	89.1-117			
<i>Surrogate: Dibromofluoromethane</i>	<i>26.1</i>		<i>ug/L</i>	<i>25.00</i>		<i>104</i>	<i>80.4-125</i>			
<i>Surrogate: Toluene-d8</i>	<i>24.6</i>		<i>ug/L</i>	<i>25.00</i>		<i>98.2</i>	<i>94.1-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>24.1</i>		<i>ug/L</i>	<i>25.00</i>		<i>96.4</i>	<i>90.3-110</i>			

**Matrix Spike (A307005-MS1)**

Source: A132615-01

Prepared: 07/02/2013 Analyzed: 07/02/2013 20:53

Acetone	43.9		ug/L	50.00	ND	87.9	45.8-164			
Benzene	5.23		ug/L	5.000	ND	105	73.7-131			
Bromobenzene	5.44		ug/L	5.000	ND	109	85.2-120			
Bromochloromethane	5.60		ug/L	5.000	ND	112	74.1-139			
Bromodichloromethane	4.36		ug/L	5.000	ND	87.2	73.5-124			
Bromoform	4.89		ug/L	5.000	ND	97.8	61.1-131			
Bromomethane	7.17		ug/L	5.000	ND	143	9.3-190			
2-Butanone	47.1		ug/L	50.00	ND	94.1	66.8-143			
n-Butyl Benzene	5.37		ug/L	5.000	ND	107	76.8-132			
sec-Butyl Benzene	5.50		ug/L	5.000	ND	110	94.1-120			
tert-Butylbenzene	5.41		ug/L	5.000	ND	108	82.7-129			
Carbon disulfide	4.73		ug/L	5.000	ND	94.6	81.1-120			
Carbon tetrachloride	4.98		ug/L	5.000	ND	99.6	71.6-131			
Chlorobenzene	5.33		ug/L	5.000	ND	107	86.9-121			
Chloroethane	10.6		ug/L	5.000	ND	211	6-181			M
Chloroform	4.79		ug/L	5.000	ND	95.8	65.2-143			
Chloromethane	5.13		ug/L	5.000	ND	103	47.1-146			
2-Chlorotoluene	5.26		ug/L	5.000	ND	105	84.7-126			
4-Chlorotoluene	5.21		ug/L	5.000	ND	104	85.8-123			
1,2-Dibromo-3-chloropropane	5.52		ug/L	5.000	ND	110	55.4-148			
Dibromochloromethane	4.56		ug/L	5.000	ND	91.2	69.9-126			
1,2-Dibromoethane (EDB)	5.14		ug/L	5.000	ND	103	78.2-133			
Dibromomethane	4.92		ug/L	5.000	ND	98.4	85.5-122			
1,2-Dichlorobenzene	5.31		ug/L	5.000	ND	106	85.1-124			
1,4-Dichlorobenzene	5.19		ug/L	5.000	ND	104	79.7-122			
1,3-Dichlorobenzene	5.35		ug/L	5.000	ND	107	83.5-124			
Dichlorodifluoromethane	4.93		ug/L	5.000	ND	98.6	68.8-126			
1,1-Dichloroethane	5.39		ug/L	5.000	ND	108	68.5-145			



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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 A307005 - EPA 5030B**

<b>Matrix Spike (A307005-MS1)</b>	<b>Source: A132615-01</b>	<b>Prepared: 07/02/2013 Analyzed: 07/02/2013 20:53</b>							
1,2-Dichloroethane	4.97	ug/L	5.000	ND	99.4	67.8-140			
trans-1,2-Dichloroethene	5.21	ug/L	5.000	ND	104	80.4-131			
cis-1,2-Dichloroethene	5.44	ug/L	5.000	ND	109	78.2-132			
1,1-Dichloroethene	4.93	ug/L	5.000	ND	98.6	67.9-130			
2,2-Dichloropropane	4.76	ug/L	5.000	ND	95.2	59.4-124			
1,2-Dichloropropane	4.95	ug/L	5.000	ND	99.0	80.9-123			
1,3-Dichloropropane	4.75	ug/L	5.000	ND	95.0	84.6-123			
cis-1,3-Dichloropropene	4.90	ug/L	5.000	ND	98.0	74-131			
trans-1,3-Dichloropropene	4.52	ug/L	5.000	ND	90.4	67-137			
1,1-Dichloropropene	5.97	ug/L	5.000	ND	119	82.4-131			
Diisopropyl Ether	5.49	ug/L	5.000	ND	110	76.6-134			
Ethylbenzene	5.20	ug/L	5.000	ND	104	86.8-120			
Hexachlorobutadiene	5.40	ug/L	5.000	ND	108	67.8-135			
n-Hexane	5.37	ug/L	5.000	ND	107	69.5-128			B
2-Hexanone	47.7	ug/L	50.00	ND	95.5	71.6-134			
Isopropylbenzene	5.13	ug/L	5.000	ND	103	83.8-128			
p-Isopropyltoluene	5.50	ug/L	5.000	ND	110	81.1-131			
Methylene chloride	5.05	ug/L	5.000	ND	101	70.3-133			
4-Methyl-2-pentanone	47.3	ug/L	50.00	ND	94.6	80.7-125			
Methyl t-Butyl Ether	4.95	ug/L	5.000	ND	99.0	70.7-136			
Naphthalene	5.59	ug/L	5.000	ND	112	57.6-136			
n-Propyl Benzene	5.35	ug/L	5.000	ND	107	88.5-123			
Styrene	5.35	ug/L	5.000	ND	107	79.7-128			
1,1,1,2-Tetrachloroethane	4.93	ug/L	5.000	ND	98.6	77.8-127			
1,1,1,2,2-Tetrachloroethane	5.16	ug/L	5.000	ND	103	76.6-135			
Tetrachloroethene	4.82	ug/L	5.000	ND	96.4	75.6-123			
Tetrahydrofuran	25.7	ug/L	25.00	ND	103	70.1-147			
Toluene	5.18	ug/L	5.000	ND	104	76.3-118			
1,2,3-Trichlorobenzene	5.46	ug/L	5.000	ND	109	73.1-130			
1,2,4-Trichlorobenzene	5.50	ug/L	5.000	ND	110	72-131			
1,1,1-Trichloroethane	5.22	ug/L	5.000	ND	104	83-127			
1,1,2-Trichloroethane	5.08	ug/L	5.000	ND	102	79.1-130			
Trichloroethene	5.04	ug/L	5.000	ND	101	77.3-127			
Trichlorofluoromethane	5.35	ug/L	5.000	ND	107	43.5-176			
1,2,3-Trichloropropane	4.70	ug/L	5.000	ND	94.0	73.7-131			
1,1,2-Trichlorotrifluoroethane	5.10	ug/L	5.000	ND	102	58.2-143			
1,3,5-Trimethylbenzene	5.37	ug/L	5.000	ND	107	90.4-120			
1,2,4-Trimethylbenzene	5.56	ug/L	5.000	ND	111	84.3-121			
Vinyl chloride	5.09	ug/L	5.000	ND	102	62.7-141			
m,p-Xylene	10.5	ug/L	10.00	ND	105	87.9-119			
o-Xylene	4.77	ug/L	5.000	ND	95.4	81.2-124			
Surrogate: Dibromofluoromethane	26.4	ug/L	25.00		105	80.4-125			
Surrogate: Toluene-d8	24.8	ug/L	25.00		99.2	94.1-107			
Surrogate: 4-Bromofluorobenzene	24.2	ug/L	25.00		96.6	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 A307005 - EPA 5030B**

**Matrix Spike Dup (A307005-MSD1)**

Source: A132615-01

Prepared: 07/02/2013 Analyzed: 07/02/2013 21:20

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Acetone	35.2		ug/L	50.00	ND	70.4	45.8-164	22.1	20	X
Benzene	5.16		ug/L	5.000	ND	103	73.7-131	1.35	20	
Bromobenzene	5.38		ug/L	5.000	ND	108	85.2-120	1.11	20	
Bromochloromethane	5.37		ug/L	5.000	ND	107	74.1-139	4.19	20	
Bromodichloromethane	4.31		ug/L	5.000	ND	86.2	73.5-124	1.15	20	
Bromoform	4.84		ug/L	5.000	ND	96.8	61.1-131	1.03	20	
Bromomethane	8.85		ug/L	5.000	ND	177	9.3-190	21.0	20	X
2-Butanone	48.1		ug/L	50.00	ND	96.2	66.8-143	2.12	20	
n-Butyl Benzene	5.38		ug/L	5.000	ND	108	76.8-132	0.186	20	
sec-Butyl Benzene	5.57		ug/L	5.000	ND	111	94.1-120	1.26	20	
tert-Butylbenzene	5.51		ug/L	5.000	ND	110	82.7-129	1.83	20	
Carbon disulfide	4.78		ug/L	5.000	ND	95.6	81.1-120	1.05	20	
Carbon tetrachloride	4.99		ug/L	5.000	ND	99.8	71.6-131	0.201	20	
Chlorobenzene	5.32		ug/L	5.000	ND	106	86.9-121	0.188	20	
Chloroethane	8.13		ug/L	5.000	ND	163	6-181	25.9	20	X
Chloroform	4.88		ug/L	5.000	ND	97.6	65.2-143	1.86	20	
Chloromethane	4.41		ug/L	5.000	ND	88.2	47.1-146	15.1	20	
2-Chlorotoluene	5.24		ug/L	5.000	ND	105	84.7-126	0.381	20	
4-Chlorotoluene	5.39		ug/L	5.000	ND	108	85.8-123	3.40	20	
1,2-Dibromo-3-chloropropane	5.99		ug/L	5.000	ND	120	55.4-148	8.17	20	
Dibromochloromethane	4.55		ug/L	5.000	ND	91.0	69.9-126	0.220	20	
1,2-Dibromoethane (EDB)	5.17		ug/L	5.000	ND	103	78.2-133	0.582	20	
Dibromomethane	4.99		ug/L	5.000	ND	99.8	85.5-122	1.41	20	
1,2-Dichlorobenzene	5.13		ug/L	5.000	ND	103	85.1-124	3.45	20	
1,4-Dichlorobenzene	5.16		ug/L	5.000	ND	103	79.7-122	0.580	20	
1,3-Dichlorobenzene	5.31		ug/L	5.000	ND	106	83.5-124	0.750	20	
Dichlorodifluoromethane	4.55		ug/L	5.000	ND	91.0	68.8-126	8.02	20	
1,1-Dichloroethane	5.31		ug/L	5.000	ND	106	68.5-145	1.50	20	
1,2-Dichloroethane	5.00		ug/L	5.000	ND	100	67.8-140	0.602	20	
trans-1,2-Dichloroethene	5.17		ug/L	5.000	ND	103	80.4-131	0.771	20	
cis-1,2-Dichloroethene	5.37		ug/L	5.000	ND	107	78.2-132	1.30	20	
1,1-Dichloroethene	5.00		ug/L	5.000	ND	100	67.9-130	1.41	20	
2,2-Dichloropropane	4.65		ug/L	5.000	ND	93.0	59.4-124	2.34	20	
1,2-Dichloropropane	5.02		ug/L	5.000	ND	100	80.9-123	1.40	20	
1,3-Dichloropropane	4.95		ug/L	5.000	ND	99.0	84.6-123	4.12	20	
cis-1,3-Dichloropropene	4.77		ug/L	5.000	ND	95.4	74-131	2.69	20	
trans-1,3-Dichloropropene	4.64		ug/L	5.000	ND	92.8	67-137	2.62	20	
1,1-Dichloropropene	5.77		ug/L	5.000	ND	115	82.4-131	3.41	20	
Diisopropyl Ether	5.23		ug/L	5.000	ND	105	76.6-134	4.85	20	
Ethylbenzene	5.12		ug/L	5.000	ND	102	86.8-120	1.55	20	
Hexachlorobutadiene	5.29		ug/L	5.000	ND	106	67.8-135	2.06	20	
n-Hexane	5.14		ug/L	5.000	ND	103	69.5-128	4.38	20	B
2-Hexanone	48.5		ug/L	50.00	ND	97.0	71.6-134	1.56	20	
Isopropylbenzene	5.27		ug/L	5.000	ND	105	83.8-128	2.69	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 A307005 - EPA 5030B**

<b>Matrix Spike Dup (A307005-MSD1)</b>	<b>Source: A132615-01</b>		Prepared: 07/02/2013		Analyzed: 07/02/2013 21:20				
p-Isopropyltoluene	5.59	ug/L	5.000	ND	112	81.1-131	1.62	20	
Methylene chloride	4.89	ug/L	5.000	ND	97.8	70.3-133	3.22	20	
4-Methyl-2-pentanone	48.2	ug/L	50.00	ND	96.3	80.7-125	1.76	20	
Methyl t-Butyl Ether	4.92	ug/L	5.000	ND	98.4	70.7-136	0.608	20	
Naphthalene	5.54	ug/L	5.000	ND	111	57.6-136	0.898	20	
n-Propyl Benzene	5.54	ug/L	5.000	ND	111	88.5-123	3.49	20	
Styrene	5.33	ug/L	5.000	ND	107	79.7-128	0.375	20	
1,1,1,2-Tetrachloroethane	4.93	ug/L	5.000	ND	98.6	77.8-127	0.00	20	
1,1,2,2-Tetrachloroethane	5.33	ug/L	5.000	ND	107	76.6-135	3.24	20	
Tetrachloroethene	4.93	ug/L	5.000	ND	98.6	75.6-123	2.26	20	
Tetrahydrofuran	22.4	ug/L	25.00	ND	89.6	70.1-147	13.7	20	
Toluene	5.13	ug/L	5.000	ND	103	76.3-118	0.970	20	
1,2,3-Trichlorobenzene	5.66	ug/L	5.000	ND	113	73.1-130	3.60	20	
1,2,4-Trichlorobenzene	5.41	ug/L	5.000	ND	108	72-131	1.65	20	
1,1,1-Trichloroethane	5.07	ug/L	5.000	ND	101	83-127	2.92	20	
1,1,2-Trichloroethane	4.99	ug/L	5.000	ND	99.8	79.1-130	1.79	20	
Trichloroethene	5.09	ug/L	5.000	ND	102	77.3-127	0.987	20	
Trichlorofluoromethane	5.31	ug/L	5.000	ND	106	43.5-176	0.750	20	
1,2,3-Trichloropropane	5.25	ug/L	5.000	ND	105	73.7-131	11.1	20	
1,1,2-Trichlorotrifluoroethane	5.24	ug/L	5.000	ND	105	58.2-143	2.71	20	
1,3,5-Trimethylbenzene	5.51	ug/L	5.000	ND	110	90.4-120	2.57	20	
1,2,4-Trimethylbenzene	5.67	ug/L	5.000	ND	113	84.3-121	1.96	20	
Vinyl chloride	4.85	ug/L	5.000	ND	97.0	62.7-141	4.83	20	
m,p-Xylene	10.7	ug/L	10.00	ND	107	87.9-119	1.32	20	
o-Xylene	4.98	ug/L	5.000	ND	99.6	81.2-124	4.31	20	
Surrogate: Dibromofluoromethane	25.7	ug/L	25.00		103	80.4-125			
Surrogate: Toluene-d8	24.6	ug/L	25.00		98.4	94.1-107			
Surrogate: 4-Bromofluorobenzene	24.7	ug/L	25.00		99.0	90.3-110			



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:  
07/03/2013

### 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 A306109 - % Solids

Duplicate (A306109-DUP1)	Source: A132617-01	Prepared: 06/28/2013	Analyzed: 07/01/2013 09:17		
% Solids	83.4	0.00 % by Weight	84.5	1.23	20



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Madison, WI 53718  
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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:  
07/03/2013

### Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of 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.
- B Analyte is also detected in the associated method blank.
- 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





July 03, 2013

Jessica Esser  
ECCS  
2525 Advance Road  
Madison, WI 53718

RE: Project: A132617 FORMER WABASH ALLOYS  
Pace Project No.: 4080413

Dear Jessica Esser:

Enclosed are the analytical results for sample(s) received by the laboratory on June 29, 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: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

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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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## SAMPLE SUMMARY

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
4080413001	A132617-01	Solid	06/26/13 15:00	06/29/13 10:15
4080413002	A132617-02	Solid	06/26/13 15:05	06/29/13 10:15

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### SAMPLE ANALYTE COUNT

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4080413001	A132617-01	EPA 6010	DLB	11
		EPA 7471	CMS	1
		EPA 8270	RJN	71
		ASTM D2974-87	BLF	1
4080413002	A132617-02	EPA 6010	DLB	11
		EPA 7471	CMS	1
		EPA 8270	RJN	71
		ASTM D2974-87	BLF	1

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Sample: A132617-01 Lab ID: 4080413001 Collected: 06/26/13 15:00 Received: 06/29/13 10:15 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	24400	mg/kg	60.4	8.1	1	07/01/13 10:45	07/02/13 12:05	7429-90-5	P6
Arsenic	6.3	mg/kg	2.4	0.65	1	07/01/13 10:45	07/02/13 12:05	7440-38-2	
Barium	94.3	mg/kg	0.60	0.10	1	07/01/13 10:45	07/02/13 12:05	7440-39-3	
Cadmium	0.34J	mg/kg	0.60	0.061	1	07/01/13 10:45	07/02/13 12:05	7440-43-9	
Chromium	35.1	mg/kg	0.60	0.15	1	07/01/13 10:45	07/02/13 12:05	7440-47-3	
Copper	26.2	mg/kg	1.2	0.20	1	07/01/13 10:45	07/02/13 12:05	7440-50-8	
Lead	8.1	mg/kg	1.2	0.35	1	07/01/13 10:45	07/02/13 12:05	7439-92-1	
Nickel	36.9	mg/kg	1.2	0.13	1	07/01/13 10:45	07/02/13 12:05	7440-02-0	
Selenium	<0.71	mg/kg	2.4	0.71	1	07/01/13 10:45	07/02/13 12:05	7782-49-2	
Silver	<0.26	mg/kg	1.2	0.26	1	07/01/13 10:45	07/02/13 12:05	7440-22-4	
Zinc	50.9	mg/kg	4.8	0.32	1	07/01/13 10:45	07/02/13 12:05	7440-66-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.016	mg/kg	0.0074	0.0037	1	07/01/13 14:47	07/02/13 12:00	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<11.2	ug/kg	202	11.2	1	07/02/13 08:19	07/02/13 12:44	120-82-1	
1,2-Dichlorobenzene	<23.1	ug/kg	202	23.1	1	07/02/13 08:19	07/02/13 12:44	95-50-1	
1,3-Dichlorobenzene	<23.7	ug/kg	202	23.7	1	07/02/13 08:19	07/02/13 12:44	541-73-1	
1,4-Dichlorobenzene	<26.1	ug/kg	202	26.1	1	07/02/13 08:19	07/02/13 12:44	106-46-7	
2,2'-Oxybis(1-chloropropane)	<25.9	ug/kg	202	25.9	1	07/02/13 08:19	07/02/13 12:44	108-60-1	
2,4,5-Trichlorophenol	<13.3	ug/kg	202	13.3	1	07/02/13 08:19	07/02/13 12:44	95-95-4	
2,4,6-Trichlorophenol	<22.3	ug/kg	202	22.3	1	07/02/13 08:19	07/02/13 12:44	88-06-2	
2,4-Dichlorophenol	<17.3	ug/kg	202	17.3	1	07/02/13 08:19	07/02/13 12:44	120-83-2	
2,4-Dimethylphenol	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	105-67-9	
2,4-Dinitrophenol	<149	ug/kg	809	149	1	07/02/13 08:19	07/02/13 12:44	51-28-5	
2,4-Dinitrotoluene	<15.9	ug/kg	202	15.9	1	07/02/13 08:19	07/02/13 12:44	121-14-2	
2,6-Dinitrotoluene	<23.4	ug/kg	202	23.4	1	07/02/13 08:19	07/02/13 12:44	606-20-2	
2-Chloronaphthalene	<21.0	ug/kg	202	21.0	1	07/02/13 08:19	07/02/13 12:44	91-58-7	
2-Chlorophenol	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	95-57-8	
2-Methylnaphthalene	<22.3	ug/kg	202	22.3	1	07/02/13 08:19	07/02/13 12:44	91-57-6	
2-Methylphenol(o-Cresol)	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	95-48-7	
2-Nitroaniline	<14.6	ug/kg	202	14.6	1	07/02/13 08:19	07/02/13 12:44	88-74-4	
2-Nitrophenol	<24.2	ug/kg	202	24.2	1	07/02/13 08:19	07/02/13 12:44	88-75-5	
3&4-Methylphenol(m&p Cresol)	<21.1	ug/kg	202	21.1	1	07/02/13 08:19	07/02/13 12:44		
3,3'-Dichlorobenzidine	<14.7	ug/kg	202	14.7	1	07/02/13 08:19	07/02/13 12:44	91-94-1	
3-Nitroaniline	<16.0	ug/kg	202	16.0	1	07/02/13 08:19	07/02/13 12:44	99-09-2	
4,6-Dinitro-2-methylphenol	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	534-52-1	
4-Bromophenylphenyl ether	<21.4	ug/kg	202	21.4	1	07/02/13 08:19	07/02/13 12:44	101-55-3	
4-Chloro-3-methylphenol	<20.6	ug/kg	202	20.6	1	07/02/13 08:19	07/02/13 12:44	59-50-7	
4-Chloroaniline	<101	ug/kg	404	101	1	07/02/13 08:19	07/02/13 12:44	106-47-8	
4-Chlorophenylphenyl ether	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	7005-72-3	
4-Nitroaniline	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	100-01-6	
4-Nitrophenol	<39.9	ug/kg	202	39.9	1	07/02/13 08:19	07/02/13 12:44	100-02-7	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Sample: A132617-01 Lab ID: 4080413001 Collected: 06/26/13 15:00 Received: 06/29/13 10:15 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>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>MICROWAVE</b>									
Acenaphthene	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	83-32-9	
Acenaphthylene	<21.7	ug/kg	202	21.7	1	07/02/13 08:19	07/02/13 12:44	208-96-8	
Anthracene	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	120-12-7	
Benzo(a)anthracene	<22.8	ug/kg	202	22.8	1	07/02/13 08:19	07/02/13 12:44	56-55-3	
Benzo(a)pyrene	<24.5	ug/kg	202	24.5	1	07/02/13 08:19	07/02/13 12:44	50-32-8	
Benzo(b)fluoranthene	<23.9	ug/kg	202	23.9	1	07/02/13 08:19	07/02/13 12:44	205-99-2	
Benzo(g,h,i)perylene	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	191-24-2	
Benzo(k)fluoranthene	<31.9	ug/kg	202	31.9	1	07/02/13 08:19	07/02/13 12:44	207-08-9	
Butylbenzylphthalate	<45.5	ug/kg	202	45.5	1	07/02/13 08:19	07/02/13 12:44	85-68-7	
Carbazole	<20.9	ug/kg	202	20.9	1	07/02/13 08:19	07/02/13 12:44	86-74-8	
Chrysene	<29.5	ug/kg	202	29.5	1	07/02/13 08:19	07/02/13 12:44	218-01-9	
Di-n-butylphthalate	<33.8	ug/kg	202	33.8	1	07/02/13 08:19	07/02/13 12:44	84-74-2	
Di-n-octylphthalate	<22.1	ug/kg	202	22.1	1	07/02/13 08:19	07/02/13 12:44	117-84-0	
Dibenz(a,h)anthracene	<37.0	ug/kg	202	37.0	1	07/02/13 08:19	07/02/13 12:44	53-70-3	L2
Dibenzofuran	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	132-64-9	
Diethylphthalate	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	84-66-2	
Dimethylphthalate	<21.2	ug/kg	202	21.2	1	07/02/13 08:19	07/02/13 12:44	131-11-3	
Fluoranthene	<35.8	ug/kg	202	35.8	1	07/02/13 08:19	07/02/13 12:44	206-44-0	
Fluorene	<10.2	ug/kg	202	10.2	1	07/02/13 08:19	07/02/13 12:44	86-73-7	
Hexachloro-1,3-butadiene	<26.0	ug/kg	202	26.0	1	07/02/13 08:19	07/02/13 12:44	87-68-3	
Hexachlorobenzene	<11.9	ug/kg	202	11.9	1	07/02/13 08:19	07/02/13 12:44	118-74-1	
Hexachlorocyclopentadiene	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	77-47-4	
Hexachloroethane	<25.6	ug/kg	202	25.6	1	07/02/13 08:19	07/02/13 12:44	67-72-1	
Indeno(1,2,3-cd)pyrene	<27.1	ug/kg	202	27.1	1	07/02/13 08:19	07/02/13 12:44	193-39-5	
Isophorone	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	78-59-1	
N-Nitroso-di-n-propylamine	<24.0	ug/kg	202	24.0	1	07/02/13 08:19	07/02/13 12:44	621-64-7	
N-Nitrosodiphenylamine	<27.8	ug/kg	202	27.8	1	07/02/13 08:19	07/02/13 12:44	86-30-6	
Naphthalene	<23.6	ug/kg	202	23.6	1	07/02/13 08:19	07/02/13 12:44	91-20-3	
Nitrobenzene	<23.2	ug/kg	202	23.2	1	07/02/13 08:19	07/02/13 12:44	98-95-3	
Pentachlorophenol	<101	ug/kg	400	101	1	07/02/13 08:19	07/02/13 12:44	87-86-5	
Phenanthrene	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	85-01-8	
Phenol	<24.0	ug/kg	202	24.0	1	07/02/13 08:19	07/02/13 12:44	108-95-2	
Pyrene	<49.2	ug/kg	202	49.2	1	07/02/13 08:19	07/02/13 12:44	129-00-0	
Pyridine	<516	ug/kg	4040	516	1	07/02/13 08:19	07/02/13 12:44	110-86-1	
bis(2-Chloroethoxy)methane	<24.4	ug/kg	202	24.4	1	07/02/13 08:19	07/02/13 12:44	111-91-1	
bis(2-Chloroethyl) ether	<101	ug/kg	202	101	1	07/02/13 08:19	07/02/13 12:44	111-44-4	
bis(2-Ethylhexyl)phthalate	<41.4	ug/kg	202	41.4	1	07/02/13 08:19	07/02/13 12:44	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	82 %		40-130		1	07/02/13 08:19	07/02/13 12:44	4165-60-0	
2-Fluorobiphenyl (S)	82 %		53-130		1	07/02/13 08:19	07/02/13 12:44	321-60-8	
Terphenyl-d14 (S)	102 %		36-162		1	07/02/13 08:19	07/02/13 12:44	1718-51-0	
Phenol-d6 (S)	70 %		30-130		1	07/02/13 08:19	07/02/13 12:44	13127-88-3	
2-Fluorophenol (S)	72 %		28-130		1	07/02/13 08:19	07/02/13 12:44	367-12-4	
2,4,6-Tribromophenol (S)	75 %		18-130		1	07/02/13 08:19	07/02/13 12:44	118-79-6	

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### ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

---

**Sample: A132617-01**      **Lab ID: 4080413001**      Collected: 06/26/13 15:00      Received: 06/29/13 10:15      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>17.5</b>	%	0.10	0.10	1		07/01/13 11:13		

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## ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Sample: **A132617-02** Lab ID: **4080413002** Collected: 06/26/13 15:05 Received: 06/29/13 10:15 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	17300	mg/kg	50.2	6.7	1	07/01/13 10:45	07/02/13 12:16	7429-90-5	
Arsenic	6.0	mg/kg	2.0	0.54	1	07/01/13 10:45	07/02/13 12:16	7440-38-2	
Barium	68.4	mg/kg	0.50	0.087	1	07/01/13 10:45	07/02/13 12:16	7440-39-3	
Cadmium	0.31J	mg/kg	0.50	0.051	1	07/01/13 10:45	07/02/13 12:16	7440-43-9	
Chromium	24.5	mg/kg	0.50	0.13	1	07/01/13 10:45	07/02/13 12:16	7440-47-3	
Copper	24.3	mg/kg	1.0	0.16	1	07/01/13 10:45	07/02/13 12:16	7440-50-8	
Lead	7.2	mg/kg	1.0	0.29	1	07/01/13 10:45	07/02/13 12:16	7439-92-1	
Nickel	26.0	mg/kg	1.0	0.11	1	07/01/13 10:45	07/02/13 12:16	7440-02-0	
Selenium	<0.59	mg/kg	2.0	0.59	1	07/01/13 10:45	07/02/13 12:16	7782-49-2	
Silver	<0.21	mg/kg	1.0	0.21	1	07/01/13 10:45	07/02/13 12:16	7440-22-4	
Zinc	39.3	mg/kg	4.0	0.27	1	07/01/13 10:45	07/02/13 12:16	7440-66-6	
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.013	mg/kg	0.0070	0.0035	1	07/01/13 14:47	07/02/13 12:02	7439-97-6	
<b>8270 MSSV FULL LIST MICROWAVE</b>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
1,2,4-Trichlorobenzene	<10.9	ug/kg	198	10.9	1	07/02/13 08:19	07/02/13 13:14	120-82-1	
1,2-Dichlorobenzene	<22.6	ug/kg	198	22.6	1	07/02/13 08:19	07/02/13 13:14	95-50-1	
1,3-Dichlorobenzene	<23.2	ug/kg	198	23.2	1	07/02/13 08:19	07/02/13 13:14	541-73-1	
1,4-Dichlorobenzene	<25.5	ug/kg	198	25.5	1	07/02/13 08:19	07/02/13 13:14	106-46-7	
2,2'-Oxybis(1-chloropropane)	<25.3	ug/kg	198	25.3	1	07/02/13 08:19	07/02/13 13:14	108-60-1	
2,4,5-Trichlorophenol	<13.0	ug/kg	198	13.0	1	07/02/13 08:19	07/02/13 13:14	95-95-4	
2,4,6-Trichlorophenol	<21.8	ug/kg	198	21.8	1	07/02/13 08:19	07/02/13 13:14	88-06-2	
2,4-Dichlorophenol	<16.9	ug/kg	198	16.9	1	07/02/13 08:19	07/02/13 13:14	120-83-2	
2,4-Dimethylphenol	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	105-67-9	
2,4-Dinitrophenol	<145	ug/kg	791	145	1	07/02/13 08:19	07/02/13 13:14	51-28-5	
2,4-Dinitrotoluene	<15.5	ug/kg	198	15.5	1	07/02/13 08:19	07/02/13 13:14	121-14-2	
2,6-Dinitrotoluene	<22.8	ug/kg	198	22.8	1	07/02/13 08:19	07/02/13 13:14	606-20-2	
2-Chloronaphthalene	<20.6	ug/kg	198	20.6	1	07/02/13 08:19	07/02/13 13:14	91-58-7	
2-Chlorophenol	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	95-57-8	
2-Methylnaphthalene	65.7J	ug/kg	198	21.8	1	07/02/13 08:19	07/02/13 13:14	91-57-6	
2-Methylphenol(o-Cresol)	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	95-48-7	
2-Nitroaniline	<14.3	ug/kg	198	14.3	1	07/02/13 08:19	07/02/13 13:14	88-74-4	
2-Nitrophenol	<23.6	ug/kg	198	23.6	1	07/02/13 08:19	07/02/13 13:14	88-75-5	
3&4-Methylphenol(m&p Cresol)	<20.6	ug/kg	198	20.6	1	07/02/13 08:19	07/02/13 13:14		
3,3'-Dichlorobenzidine	<14.3	ug/kg	198	14.3	1	07/02/13 08:19	07/02/13 13:14	91-94-1	
3-Nitroaniline	<15.7	ug/kg	198	15.7	1	07/02/13 08:19	07/02/13 13:14	99-09-2	
4,6-Dinitro-2-methylphenol	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	534-52-1	
4-Bromophenylphenyl ether	<21.0	ug/kg	198	21.0	1	07/02/13 08:19	07/02/13 13:14	101-55-3	
4-Chloro-3-methylphenol	<20.2	ug/kg	198	20.2	1	07/02/13 08:19	07/02/13 13:14	59-50-7	
4-Chloroaniline	<98.8	ug/kg	395	98.8	1	07/02/13 08:19	07/02/13 13:14	106-47-8	
4-Chlorophenylphenyl ether	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	7005-72-3	
4-Nitroaniline	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	100-01-6	
4-Nitrophenol	<39.0	ug/kg	198	39.0	1	07/02/13 08:19	07/02/13 13:14	100-02-7	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Sample: A132617-02 Lab ID: 4080413002 Collected: 06/26/13 15:05 Received: 06/29/13 10:15 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>									
Analytical Method: EPA 8270 Preparation Method: EPA 3546									
<b>MICROWAVE</b>									
Acenaphthene	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	83-32-9	
Acenaphthylene	<21.2	ug/kg	198	21.2	1	07/02/13 08:19	07/02/13 13:14	208-96-8	
Anthracene	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	120-12-7	
Benzo(a)anthracene	<22.3	ug/kg	198	22.3	1	07/02/13 08:19	07/02/13 13:14	56-55-3	
Benzo(a)pyrene	<24.0	ug/kg	198	24.0	1	07/02/13 08:19	07/02/13 13:14	50-32-8	
Benzo(b)fluoranthene	<23.3	ug/kg	198	23.3	1	07/02/13 08:19	07/02/13 13:14	205-99-2	
Benzo(g,h,i)perylene	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	191-24-2	
Benzo(k)fluoranthene	<31.2	ug/kg	198	31.2	1	07/02/13 08:19	07/02/13 13:14	207-08-9	
Butylbenzylphthalate	<44.5	ug/kg	198	44.5	1	07/02/13 08:19	07/02/13 13:14	85-68-7	
Carbazole	<20.4	ug/kg	198	20.4	1	07/02/13 08:19	07/02/13 13:14	86-74-8	
Chrysene	<28.8	ug/kg	198	28.8	1	07/02/13 08:19	07/02/13 13:14	218-01-9	
Di-n-butylphthalate	<33.1	ug/kg	198	33.1	1	07/02/13 08:19	07/02/13 13:14	84-74-2	
Di-n-octylphthalate	<21.6	ug/kg	198	21.6	1	07/02/13 08:19	07/02/13 13:14	117-84-0	
Dibenz(a,h)anthracene	<36.2	ug/kg	198	36.2	1	07/02/13 08:19	07/02/13 13:14	53-70-3	L2
Dibenzofuran	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	132-64-9	
Diethylphthalate	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	84-66-2	
Dimethylphthalate	<20.8	ug/kg	198	20.8	1	07/02/13 08:19	07/02/13 13:14	131-11-3	
Fluoranthene	<35.0	ug/kg	198	35.0	1	07/02/13 08:19	07/02/13 13:14	206-44-0	
Fluorene	<9.9	ug/kg	198	9.9	1	07/02/13 08:19	07/02/13 13:14	86-73-7	
Hexachloro-1,3-butadiene	<25.4	ug/kg	198	25.4	1	07/02/13 08:19	07/02/13 13:14	87-68-3	
Hexachlorobenzene	<11.6	ug/kg	198	11.6	1	07/02/13 08:19	07/02/13 13:14	118-74-1	
Hexachlorocyclopentadiene	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	77-47-4	
Hexachloroethane	<25.0	ug/kg	198	25.0	1	07/02/13 08:19	07/02/13 13:14	67-72-1	
Indeno(1,2,3-cd)pyrene	<26.5	ug/kg	198	26.5	1	07/02/13 08:19	07/02/13 13:14	193-39-5	
Isophorone	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	78-59-1	
N-Nitroso-di-n-propylamine	<23.4	ug/kg	198	23.4	1	07/02/13 08:19	07/02/13 13:14	621-64-7	
N-Nitrosodiphenylamine	<27.1	ug/kg	198	27.1	1	07/02/13 08:19	07/02/13 13:14	86-30-6	
Naphthalene	<23.1	ug/kg	198	23.1	1	07/02/13 08:19	07/02/13 13:14	91-20-3	
Nitrobenzene	<22.7	ug/kg	198	22.7	1	07/02/13 08:19	07/02/13 13:14	98-95-3	
Pentachlorophenol	<98.8	ug/kg	391	98.8	1	07/02/13 08:19	07/02/13 13:14	87-86-5	
Phenanthrene	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	85-01-8	
Phenol	<23.5	ug/kg	198	23.5	1	07/02/13 08:19	07/02/13 13:14	108-95-2	
Pyrene	<48.1	ug/kg	198	48.1	1	07/02/13 08:19	07/02/13 13:14	129-00-0	
Pyridine	<504	ug/kg	3950	504	1	07/02/13 08:19	07/02/13 13:14	110-86-1	
bis(2-Chloroethoxy)methane	<23.9	ug/kg	198	23.9	1	07/02/13 08:19	07/02/13 13:14	111-91-1	
bis(2-Chloroethyl) ether	<98.8	ug/kg	198	98.8	1	07/02/13 08:19	07/02/13 13:14	111-44-4	
bis(2-Ethylhexyl)phthalate	<40.5	ug/kg	198	40.5	1	07/02/13 08:19	07/02/13 13:14	117-81-7	
<b>Surrogates</b>									
Nitrobenzene-d5 (S)	82 %		40-130		1	07/02/13 08:19	07/02/13 13:14	4165-60-0	
2-Fluorobiphenyl (S)	81 %		53-130		1	07/02/13 08:19	07/02/13 13:14	321-60-8	
Terphenyl-d14 (S)	106 %		36-162		1	07/02/13 08:19	07/02/13 13:14	1718-51-0	
Phenol-d6 (S)	73 %		30-130		1	07/02/13 08:19	07/02/13 13:14	13127-88-3	
2-Fluorophenol (S)	74 %		28-130		1	07/02/13 08:19	07/02/13 13:14	367-12-4	
2,4,6-Tribromophenol (S)	83 %		18-130		1	07/02/13 08:19	07/02/13 13:14	118-79-6	

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### ANALYTICAL RESULTS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

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**Sample: A132617-02**      **Lab ID: 4080413002**      Collected: 06/26/13 15:05      Received: 06/29/13 10:15      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>15.7</b>	%	0.10	0.10	1		07/01/13 11:13		

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**QUALITY CONTROL DATA**

Project: A132617 FORMER WABASH ALLOYS  
Pace Project No.: 4080413

QC Batch: MERP/3727 Analysis Method: EPA 7471  
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury  
Associated Lab Samples: 4080413001, 4080413002

METHOD BLANK: 816563 Matrix: Solid  
Associated Lab Samples: 4080413001, 4080413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.0033	0.0067	07/02/13 11:33	

LABORATORY CONTROL SAMPLE: 816564

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.17	0.18	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 816565 816566

Parameter	Units	816565		816566		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		4080411003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.012	.19	.2	0.21	0.21	102	102	85-115	0	20

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

QC Batch: MPRP/8727 Analysis Method: EPA 6010  
QC Batch Method: EPA 3050 Analysis Description: 6010 MET  
Associated Lab Samples: 4080413001, 4080413002

METHOD BLANK: 816491 Matrix: Solid

Associated Lab Samples: 4080413001, 4080413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	mg/kg	<6.7	50.0	07/02/13 12:01	
Arsenic	mg/kg	<0.54	2.0	07/02/13 12:01	
Barium	mg/kg	<0.087	0.50	07/02/13 12:01	
Cadmium	mg/kg	<0.051	0.50	07/02/13 12:01	
Chromium	mg/kg	<0.13	0.50	07/02/13 12:01	
Copper	mg/kg	<0.16	1.0	07/02/13 12:01	
Lead	mg/kg	<0.29	1.0	07/02/13 12:01	
Nickel	mg/kg	<0.11	1.0	07/02/13 12:01	
Selenium	mg/kg	<0.59	2.0	07/02/13 12:01	
Silver	mg/kg	<0.21	1.0	07/02/13 12:01	
Zinc	mg/kg	0.42J	4.0	07/02/13 12:01	

LABORATORY CONTROL SAMPLE: 816492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/kg	500	474	95	80-120	
Arsenic	mg/kg	50	45.5	91	80-120	
Barium	mg/kg	50	47.3	95	80-120	
Cadmium	mg/kg	50	45.6	91	80-120	
Chromium	mg/kg	50	46.5	93	80-120	
Copper	mg/kg	50	45.8	92	80-120	
Lead	mg/kg	50	46.4	93	80-120	
Nickel	mg/kg	50	47.2	94	80-120	
Selenium	mg/kg	50	46.0	92	80-120	
Silver	mg/kg	25	23.0	92	80-120	
Zinc	mg/kg	50	47.4	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 816493 816494

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		4080413001 Result	Spike Conc.	Spike Conc.	Result							
Aluminum	mg/kg	24400	603	603	28800	28800	722	722	75-125	0	20	P6
Arsenic	mg/kg	6.3	60.3	60.3	55.7	55.3	82	81	75-125	1	20	
Barium	mg/kg	94.3	60.3	60.3	155	154	101	98	75-125	1	20	
Cadmium	mg/kg	0.34J	60.3	60.3	52.3	51.3	86	85	75-125	2	20	
Chromium	mg/kg	35.1	60.3	60.3	87.8	87.0	88	86	75-125	1	20	
Copper	mg/kg	26.2	60.3	60.3	77.7	77.4	86	85	75-125	0	20	
Lead	mg/kg	8.1	60.3	60.3	56.3	55.2	80	78	75-125	2	20	
Nickel	mg/kg	36.9	60.3	60.3	85.1	83.7	80	78	75-125	2	20	
Selenium	mg/kg	<0.71	60.3	60.3	49.2	49.1	81	81	75-125	0	20	

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

		816493			816494							
Parameter	Units	4080413001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Silver	mg/kg	<0.26	30.2	30.2	26.6	26.6	88	88	75-125	0	20	
Zinc	mg/kg	50.9	60.3	60.3	99.1	97.9	80	78	75-125	1	20	

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

QC Batch: OEXT/18842

Analysis Method: EPA 8270

QC Batch Method: EPA 3546

Analysis Description: 8270 Solid MSSV Microwave

Associated Lab Samples: 4080413001, 4080413002

METHOD BLANK: 816803

Matrix: Solid

Associated Lab Samples: 4080413001, 4080413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	<9.2	167	07/02/13 08:58	
1,2-Dichlorobenzene	ug/kg	<19.1	167	07/02/13 08:58	
1,3-Dichlorobenzene	ug/kg	<19.6	167	07/02/13 08:58	
1,4-Dichlorobenzene	ug/kg	<21.5	167	07/02/13 08:58	
2,2'-Oxybis(1-chloropropane)	ug/kg	<21.3	167	07/02/13 08:58	
2,4,5-Trichlorophenol	ug/kg	<11.0	167	07/02/13 08:58	
2,4,6-Trichlorophenol	ug/kg	<18.4	167	07/02/13 08:58	
2,4-Dichlorophenol	ug/kg	<14.2	167	07/02/13 08:58	
2,4-Dimethylphenol	ug/kg	<83.3	167	07/02/13 08:58	
2,4-Dinitrophenol	ug/kg	<122	667	07/02/13 08:58	
2,4-Dinitrotoluene	ug/kg	<13.1	167	07/02/13 08:58	
2,6-Dinitrotoluene	ug/kg	<19.3	167	07/02/13 08:58	
2-Chloronaphthalene	ug/kg	<17.4	167	07/02/13 08:58	
2-Chlorophenol	ug/kg	<83.3	167	07/02/13 08:58	
2-Methylnaphthalene	ug/kg	<18.4	167	07/02/13 08:58	
2-Methylphenol(o-Cresol)	ug/kg	<83.3	167	07/02/13 08:58	
2-Nitroaniline	ug/kg	<12.1	167	07/02/13 08:58	
2-Nitrophenol	ug/kg	<19.9	167	07/02/13 08:58	
3&4-Methylphenol(m&p Cresol)	ug/kg	<17.4	167	07/02/13 08:58	
3,3'-Dichlorobenzidine	ug/kg	<12.1	167	07/02/13 08:58	
3-Nitroaniline	ug/kg	<13.2	167	07/02/13 08:58	
4,6-Dinitro-2-methylphenol	ug/kg	<83.3	167	07/02/13 08:58	
4-Bromophenylphenyl ether	ug/kg	<17.7	167	07/02/13 08:58	
4-Chloro-3-methylphenol	ug/kg	<17.0	167	07/02/13 08:58	
4-Chloroaniline	ug/kg	<83.3	333	07/02/13 08:58	
4-Chlorophenylphenyl ether	ug/kg	<83.3	167	07/02/13 08:58	
4-Nitroaniline	ug/kg	<83.3	167	07/02/13 08:58	
4-Nitrophenol	ug/kg	<32.9	167	07/02/13 08:58	
Acenaphthene	ug/kg	<83.3	167	07/02/13 08:58	
Acenaphthylene	ug/kg	<17.9	167	07/02/13 08:58	
Anthracene	ug/kg	<83.3	167	07/02/13 08:58	
Benzo(a)anthracene	ug/kg	<18.8	167	07/02/13 08:58	
Benzo(a)pyrene	ug/kg	<20.2	167	07/02/13 08:58	
Benzo(b)fluoranthene	ug/kg	<19.7	167	07/02/13 08:58	
Benzo(g,h,i)perylene	ug/kg	<83.3	167	07/02/13 08:58	
Benzo(k)fluoranthene	ug/kg	<26.3	167	07/02/13 08:58	
bis(2-Chloroethoxy)methane	ug/kg	<20.1	167	07/02/13 08:58	
bis(2-Chloroethyl) ether	ug/kg	<83.3	167	07/02/13 08:58	
bis(2-Ethylhexyl)phthalate	ug/kg	<34.1	167	07/02/13 08:58	
Butylbenzylphthalate	ug/kg	<37.5	167	07/02/13 08:58	
Carbazole	ug/kg	<17.2	167	07/02/13 08:58	
Chrysene	ug/kg	<24.3	167	07/02/13 08:58	
Di-n-butylphthalate	ug/kg	<27.9	167	07/02/13 08:58	

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

METHOD BLANK: 816803

Matrix: Solid

Associated Lab Samples: 4080413001, 4080413002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Di-n-octylphthalate	ug/kg	<18.2	167	07/02/13 08:58	
Dibenz(a,h)anthracene	ug/kg	<30.5	167	07/02/13 08:58	
Dibenzofuran	ug/kg	<83.3	167	07/02/13 08:58	
Diethylphthalate	ug/kg	<83.3	167	07/02/13 08:58	
Dimethylphthalate	ug/kg	<17.5	167	07/02/13 08:58	
Fluoranthene	ug/kg	<29.5	167	07/02/13 08:58	
Fluorene	ug/kg	<8.4	167	07/02/13 08:58	
Hexachloro-1,3-butadiene	ug/kg	<21.5	167	07/02/13 08:58	
Hexachlorobenzene	ug/kg	<9.8	167	07/02/13 08:58	
Hexachlorocyclopentadiene	ug/kg	<83.3	167	07/02/13 08:58	
Hexachloroethane	ug/kg	<21.1	167	07/02/13 08:58	
Indeno(1,2,3-cd)pyrene	ug/kg	<22.4	167	07/02/13 08:58	
Isophorone	ug/kg	<83.3	167	07/02/13 08:58	
N-Nitroso-di-n-propylamine	ug/kg	<19.8	167	07/02/13 08:58	
N-Nitrosodiphenylamine	ug/kg	<22.9	167	07/02/13 08:58	
Naphthalene	ug/kg	<19.5	167	07/02/13 08:58	
Nitrobenzene	ug/kg	<19.1	167	07/02/13 08:58	
Pentachlorophenol	ug/kg	<83.3	330	07/02/13 08:58	
Phenanthrene	ug/kg	<83.3	167	07/02/13 08:58	
Phenol	ug/kg	<19.8	167	07/02/13 08:58	
Pyrene	ug/kg	<40.6	167	07/02/13 08:58	
Pyridine	ug/kg	<425	3330	07/02/13 08:58	
2,4,6-Tribromophenol (S)	%	98	18-130	07/02/13 08:58	
2-Fluorobiphenyl (S)	%	80	53-130	07/02/13 08:58	
2-Fluorophenol (S)	%	78	28-130	07/02/13 08:58	
Nitrobenzene-d5 (S)	%	88	40-130	07/02/13 08:58	
Phenol-d6 (S)	%	81	30-130	07/02/13 08:58	
Terphenyl-d14 (S)	%	107	36-162	07/02/13 08:58	

LABORATORY CONTROL SAMPLE: 816804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1430	86	56-130	
1,2-Dichlorobenzene	ug/kg	1670	1430	86	54-130	
1,3-Dichlorobenzene	ug/kg	1670	1430	86	50-130	
1,4-Dichlorobenzene	ug/kg	1670	1450	87	51-130	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1440	86	56-130	
2,4,5-Trichlorophenol	ug/kg	1670	1480	89	66-130	
2,4,6-Trichlorophenol	ug/kg	1670	1500	90	68-130	
2,4-Dichlorophenol	ug/kg	1670	1580	95	66-130	
2,4-Dimethylphenol	ug/kg	1670	1850	111	66-130	
2,4-Dinitrophenol	ug/kg	1670	2100	126	11-130	
2,4-Dinitrotoluene	ug/kg	1670	2010	121	56-130	
2,6-Dinitrotoluene	ug/kg	1670	1860	111	63-130	
2-Chloronaphthalene	ug/kg	1670	1440	86	64-130	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

LABORATORY CONTROL SAMPLE: 816804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Chlorophenol	ug/kg	1670	1440	87	58-130	
2-Methylnaphthalene	ug/kg	1670	1540	92	63-130	
2-Methylphenol(o-Cresol)	ug/kg	1670	1570	94	65-130	
2-Nitroaniline	ug/kg	1670	1570	94	71-130	
2-Nitrophenol	ug/kg	1670	1490	90	63-130	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1500	90	63-130	
3,3'-Dichlorobenzidine	ug/kg	1670	1420	85	56-139	
3-Nitroaniline	ug/kg	1670	1650	99	64-130	
4,6-Dinitro-2-methylphenol	ug/kg	1670	1970	118	33-130	
4-Bromophenylphenyl ether	ug/kg	1670	1750	105	66-130	
4-Chloro-3-methylphenol	ug/kg	1670	1780	107	66-130	
4-Chloroaniline	ug/kg	1670	1590	95	69-130	
4-Chlorophenylphenyl ether	ug/kg	1670	1620	97	68-130	
4-Nitroaniline	ug/kg	1670	1870	112	48-148	
4-Nitrophenol	ug/kg	1670	1860	112	51-133	
Acenaphthene	ug/kg	1670	1530	92	69-130	
Acenaphthylene	ug/kg	1670	1510	91	70-130	
Anthracene	ug/kg	1670	1640	98	70-130	
Benzo(a)anthracene	ug/kg	1670	1500	90	70-130	
Benzo(a)pyrene	ug/kg	1670	1610	97	62-130	
Benzo(b)fluoranthene	ug/kg	1670	1520	91	59-130	
Benzo(g,h,i)perylene	ug/kg	1670	1290	77	56-130	
Benzo(k)fluoranthene	ug/kg	1670	1950	117	64-130	
bis(2-Chloroethoxy)methane	ug/kg	1670	1500	90	66-130	
bis(2-Chloroethyl) ether	ug/kg	1670	1580	95	58-130	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1440	87	51-130	
Butylbenzylphthalate	ug/kg	1670	1500	90	57-130	
Carbazole	ug/kg	1670	1830	110	68-130	
Chrysene	ug/kg	1670	1380	83	70-130	
Di-n-butylphthalate	ug/kg	1670	1570	94	55-130	
Di-n-octylphthalate	ug/kg	1670	1260	76	47-130	
Dibenz(a,h)anthracene	ug/kg	1670	480	29	54-130	L0
Dibenzofuran	ug/kg	1670	1580	95	67-130	
Diethylphthalate	ug/kg	1670	1570	94	60-130	
Dimethylphthalate	ug/kg	1670	1510	91	60-130	
Fluoranthene	ug/kg	1670	1610	96	60-130	
Fluorene	ug/kg	1670	1610	96	70-130	
Hexachloro-1,3-butadiene	ug/kg	1670	1490	90	53-130	
Hexachlorobenzene	ug/kg	1670	1690	102	62-130	
Hexachlorocyclopentadiene	ug/kg	1670	1110	67	34-130	
Hexachloroethane	ug/kg	1670	1460	88	50-130	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1470	88	44-130	
Isophorone	ug/kg	1670	1640	98	57-130	
N-Nitroso-di-n-propylamine	ug/kg	1670	1650	99	61-130	
N-Nitrosodiphenylamine	ug/kg	1670	1710	103	70-135	
Naphthalene	ug/kg	1670	1440	87	63-130	
Nitrobenzene	ug/kg	1670	1560	93	59-130	
Pentachlorophenol	ug/kg	1670	1770	106	43-130	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

LABORATORY CONTROL SAMPLE: 816804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	1670	1650	99	70-130	
Phenol	ug/kg	1670	1500	90	62-130	
Pyrene	ug/kg	1670	1740	104	63-130	
Pyridine	ug/kg	1670	1010J	60	10-130	
2,4,6-Tribromophenol (S)	%			104	18-130	
2-Fluorobiphenyl (S)	%			82	53-130	
2-Fluorophenol (S)	%			78	28-130	
Nitrobenzene-d5 (S)	%			85	40-130	
Phenol-d6 (S)	%			82	30-130	
Terphenyl-d14 (S)	%			110	36-162	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 816805 816806

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		4080362003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1,2,4-Trichlorobenzene	ug/kg	<9.7	1760	1760	1470	1480	84	84	47-130	0	26	
1,2-Dichlorobenzene	ug/kg	<20.1	1760	1760	1540	1500	87	86	49-130	2	33	
1,3-Dichlorobenzene	ug/kg	<20.6	1760	1760	1530	1510	87	86	46-130	1	34	
1,4-Dichlorobenzene	ug/kg	<22.6	1760	1760	1550	1530	88	87	48-130	1	34	
2,2'-Oxybis(1-chloropropane)	ug/kg	<22.5	1760	1760	1570	1550	89	89	43-130	1	26	
2,4,5-Trichlorophenol	ug/kg	<11.6	1760	1760	1680	1550	95	89	16-130	8	21	
2,4,6-Trichlorophenol	ug/kg	<19.4	1760	1760	1520	1470	87	84	11-132	4	33	
2,4-Dichlorophenol	ug/kg	<15.0	1760	1760	1580	1560	90	89	32-130	1	31	
2,4-Dimethylphenol	ug/kg	<87.8	1760	1760	1900	1860	108	106	17-139	3	29	
2,4-Dinitrophenol	ug/kg	<129	1760	1760	435J	414J	25	24	10-130		40	
2,4-Dinitrotoluene	ug/kg	<13.8	1760	1760	2040	1890	116	108	22-146	8	42	
2,6-Dinitrotoluene	ug/kg	<20.3	1760	1760	1880	1840	107	105	30-136	2	38	
2-Chloronaphthalene	ug/kg	<18.3	1760	1760	1540	1480	87	84	39-130	4	25	
2-Chlorophenol	ug/kg	<87.8	1760	1760	1580	1570	90	89	39-130	1	31	
2-Methylnaphthalene	ug/kg	<19.4	1760	1760	1620	1590	93	91	37-130	2	29	
2-Methylphenol(o-Cresol)	ug/kg	<87.8	1760	1760	1740	1690	99	96	33-130	3	29	
2-Nitroaniline	ug/kg	<12.7	1760	1760	1640	1540	93	88	33-135	6	33	
2-Nitrophenol	ug/kg	<21.0	1760	1760	1630	1600	93	91	22-130	2	41	
3&4-Methylphenol(m&p Cresol)	ug/kg	<18.3	1760	1760	1680	1670	96	95	28-130	1	29	
3,3'-Dichlorobenzidine	ug/kg	<12.7	1760	1760	1740	1650	99	94	10-173	5	50	
3-Nitroaniline	ug/kg	<13.9	1760	1760	1800	1640	103	94	10-166	9	40	
4,6-Dinitro-2-methylphenol	ug/kg	<87.8	1760	1760	1450	1310	83	75	10-130	10	50	
4-Bromophenylphenyl ether	ug/kg	<18.6	1760	1760	1830	1830	104	104	27-130	0	31	
4-Chloro-3-methylphenol	ug/kg	<17.9	1760	1760	1790	1740	102	99	29-130	3	31	
4-Chloroaniline	ug/kg	<87.8	1760	1760	1600	1570	91	90	20-132	2	36	
4-Chlorophenylphenyl ether	ug/kg	<87.8	1760	1760	1690	1670	96	95	35-130	1	34	
4-Nitroaniline	ug/kg	<87.8	1760	1760	2000	1720	114	98	10-178	15	37	
4-Nitrophenol	ug/kg	<34.6	1760	1760	1420	1160	81	66	10-142	20	47	
Acenaphthene	ug/kg	<87.8	1760	1760	1580	1570	90	90	57-130	0	34	
Acenaphthylene	ug/kg	<18.8	1760	1760	1620	1580	93	90	38-130	3	34	
Anthracene	ug/kg	<87.8	1760	1760	1760	1690	100	96	29-130	4	38	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Project No.: 4080413

Parameter	Units	4080362003		816805		816806		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Benzo(a)anthracene	ug/kg	<19.8	1760	1760	1600	1520	91	86	19-132	6	42		
Benzo(a)pyrene	ug/kg	<21.3	1760	1760	1740	1670	99	95	11-131	4	38		
Benzo(b)fluoranthene	ug/kg	<20.7	1760	1760	1750	1680	100	96	10-133	4	40		
Benzo(g,h,i)perylene	ug/kg	<87.8	1760	1760	1470	1350	84	77	14-130	9	47		
Benzo(k)fluoranthene	ug/kg	<27.7	1760	1760	1770	1820	101	104	18-136	3	42		
bis(2-Chloroethoxy)methane	ug/kg	<21.2	1760	1760	1570	1560	89	89	55-130	1	22		
bis(2-Chloroethyl) ether	ug/kg	<87.8	1760	1760	1750	1690	99	96	47-130	4	24		
bis(2-Ethylhexyl)phthalate	ug/kg	<35.9	1760	1760	1490	1470	85	84	10-163	1	34		
Butylbenzylphthalate	ug/kg	<39.5	1760	1760	1570	1580	89	90	10-163	1	39		
Carbazole	ug/kg	<18.1	1760	1760	2000	1850	114	105	16-144	8	32		
Chrysene	ug/kg	<25.6	1760	1760	1560	1500	89	85	25-130	4	41		
Di-n-butylphthalate	ug/kg	<29.4	1760	1760	1690	1650	96	94	19-142	3	33		
Di-n-octylphthalate	ug/kg	<19.2	1760	1760	1430	1290	81	73	10-160	11	42		
Dibenz(a,h)anthracene	ug/kg	<32.2	1760	1760	544	509	31	29	11-130	7	38		
Dibenzofuran	ug/kg	<87.8	1760	1760	1630	1550	93	89	32-130	5	35		
Diethylphthalate	ug/kg	<87.8	1760	1760	1630	1600	93	91	27-134	2	36		
Dimethylphthalate	ug/kg	<18.4	1760	1760	1620	1550	92	88	30-131	4	37		
Fluoranthene	ug/kg	<31.1	1760	1760	1770	1600	101	91	20-143	10	40		
Fluorene	ug/kg	<8.8	1760	1760	1680	1610	96	92	36-130	5	32		
Hexachloro-1,3-butadiene	ug/kg	<22.6	1760	1760	1580	1550	90	88	40-130	2	21		
Hexachlorobenzene	ug/kg	<10.3	1760	1760	1790	1790	102	102	28-130	0	34		
Hexachlorocyclopentadiene	ug/kg	<87.8	1760	1760	1090	1080	62	62	10-130	1	45		
Hexachloroethane	ug/kg	<22.2	1760	1760	1550	1540	88	88	32-130	0	37		
Indeno(1,2,3-cd)pyrene	ug/kg	<23.5	1760	1760	1490	1340	85	76	10-130	10	48		
Isophorone	ug/kg	<87.8	1760	1760	1750	1710	100	98	49-130	2	20		
N-Nitroso-di-n-propylamine	ug/kg	<20.8	1760	1760	1780	1840	101	105	55-130	3	31		
N-Nitrosodiphenylamine	ug/kg	<24.1	1760	1760	1960	2010	112	114	37-147	2	29		
Naphthalene	ug/kg	<20.5	1760	1760	1540	1510	88	86	46-130	2	27		
Nitrobenzene	ug/kg	<20.2	1760	1760	1700	1690	97	96	47-130	1	26		
Pentachlorophenol	ug/kg	<87.8	1760	1760	1500	1480	85	84	10-130	1	50		
Phenanthrene	ug/kg	<87.8	1760	1760	1760	1740	100	99	26-131	1	35		
Phenol	ug/kg	<20.9	1760	1760	1730	1650	99	94	39-130	5	30		
Pyrene	ug/kg	<42.7	1760	1760	1690	1840	96	105	10-155	9	44		
Pyridine	ug/kg	<448	1760	1760	1310J	1540J	75	87	10-130		40		
2,4,6-Tribromophenol (S)	%						100	98	18-130				
2-Fluorobiphenyl (S)	%						85	85	53-130				
2-Fluorophenol (S)	%						79	77	28-130				
Nitrobenzene-d5 (S)	%						87	89	40-130				
Phenol-d6 (S)	%						83	84	30-130				
Terphenyl-d14 (S)	%						103	112	36-162				

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

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QC Batch:	PMST/8623	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	4080413001, 4080413002		

---

SAMPLE DUPLICATE: 816511

Parameter	Units	4080396001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.0	6.7	4	10	

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

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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

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

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.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A132617 FORMER WABASH ALLOYS

Pace Project No.: 4080413

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4080413001	A132617-01	EPA 3050	MPRP/8727	EPA 6010	ICP/7739
4080413002	A132617-02	EPA 3050	MPRP/8727	EPA 6010	ICP/7739
4080413001	A132617-01	EPA 7471	MERP/3727	EPA 7471	MERC/4665
4080413002	A132617-02	EPA 7471	MERP/3727	EPA 7471	MERC/4665
4080413001	A132617-01	EPA 3546	OEXT/18842	EPA 8270	MSSV/5791
4080413002	A132617-02	EPA 3546	OEXT/18842	EPA 8270	MSSV/5791
4080413001	A132617-01	ASTM D2974-87	PMST/8623		
4080413002	A132617-02	ASTM D2974-87	PMST/8623		

### REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

ECCS

A132617

*EMH*

4080413

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

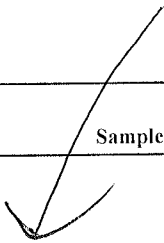
Rush *7/2/13 if possible*

			Laboratory ID	Comments
<i>001</i>	Lab ID: A132617-01	Soil		
	Subcontracted SVOC			TCL3.4
	RCRA Metals			plus al, cu, ni, zn
	Containers Supplied:			
	03_4oz WM Amber Glass			
<i>002</i>	Lab ID: A132617-02	Soil		
	Subcontracted SVOC			TCL3.4
	RCRA Metals			plus al, cu, ni, zn
	Containers Supplied:			
	03_4oz WM Amber Glass			

Sampled: 06/26/2013 15:00

Sampled: 06/26/2013 15:05

*1-4oz ag A*



Released By *Karin Ann Billin* Date *6/28/13 1630*

Released By *FedEx*

Date *6/29/13 1015*

Received By \_\_\_\_\_ Date \_\_\_\_\_

Received By *E. Kelly Pace GB*

Date *6/29/13 1015*



**Sample Condition Upon Receipt**

Client Name: ECCS Project # 4080413

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_  
 Tracking #: 7961 2416 3459  
 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 N/A Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun  
 Cooler Temperature Uncorr: 60F /Corr: \_\_\_\_\_ Biological Tissue is Frozen:  yes  no  
 Temp Blank Present:  yes  no  no  
 Temp should be above freezing to 6°C for all sample except Biota.  
 Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:  
Date: 6/29/13  
Initials: EMH

		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 type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>Subwork EMH 6/29/13</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 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.
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. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
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 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 comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

Project Manager Review: CAF for DM Date: 6/29/13