



# MACTEC

engineering and constructing a better tomorrow

May 10, 2013

Mr. Will Welling

New York State Department of Environmental Conservation

625 Broadway

Albany, NY 12233-7013

**Subject:        Semiannual Discharge Monitoring and Site  
                    Inspection Report - March 2013  
                    Primoshield Incorporated Site, Site No. 633027  
                    MACTEC Engineering & Consulting, P.C., Project No. 3612122251**

Dear Mr. Welling:

On behalf of the New York State Department of Environmental Conservation (NYSDEC) and work assignment D007619-18, MACTEC Consulting and Engineering P.C. (MACTEC) submits this Quarterly Inspection Report for the Primoshield Incorporated Site (Site), NYSDEC Site # 633027, located in Utica, NY. The Site is located at 1212 St. Vincent Street, is approximately 0.86 acres in size and is bordered by Conkling Avenue on the Northwest and St. Vincent Street on the South and East.

The Primoshield site is a former metal electroplating facility; the Site has a Classification Code of 4 (Site Management [SM]). The Site's Record of Decision consisted of a groundwater and treatment system with contaminated groundwater being treated by carbon filtration, then being discharged to the Publicly Owned Treatment Works. The treatment system was initially installed to treat trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethane, and chromium in the site groundwater; however, the contaminant concentrations at the site since 2001 have not warranted the use of carbon filters in the system. Currently, SM includes Long Term Monitoring consisting of groundwater monitoring every 15 months, semi-annual discharge monitoring, and quarterly (winter, spring, summer, fall) site inspections (NYSDEC, 2012). This report presents the findings

of the quarterly Site inspection (spring) and semiannual discharge monitoring performed during March 2013.

## **Site Inspection**

The Site inspection was conducted on March 26, 2013 for the following:

- Check treatment system operations;
- Inspect the physical conditions of site; and
- Carry out any maintenance or repairs as needed.

Figure 1 shows the Site location and Figure 2 shows the Site features. Inspection form and photo documentation of the inspection are provided in Attachment 1.

### Treatment System

The treatment system was observed to be operating upon arrival. Consistent with previous inspections, the basket strainers were observed to be clogged with fine silt and grass clippings potentially hindering system performance. The basket strainers were removed from the system and the grass directly around the collection manhole was replaced with gravel in order to minimize the amount of grass clippings entering the treatment system. System flow was observed to be approximately 30 gallons per minute (gpm) (after cleaning the strainer).

### Site Conditions

The physical condition of the site was inspected for noticeable deviations since the last site inspection was conducted (January 2013). Conditions at the site are consistent with previous inspections. Observations noted and documented during the Site inspection are provided in Attachment 1.

- Collection system clean-out pipes (5 total on 3 drain lines) are in good condition (lids secure and concrete intact). Three clean-outs are located within the fenced in area of the site and 2 are located just northeast of the site on private property. The drain lines transfer shallow groundwater to the treatment system via a manhole/sump vault.
- Treatment plant piping and valves appear to be in good condition as there are no visible breaks or leaks.
- The treatment building is in good condition - no leaks in the roof, doors and hinges work.

- The perimeter fence is upright; the 2 locations that were found to be compromised during previous inspections were repaired (one temporarily – see photos in Attachment 1). One additional fence was noted to need vendor repair (awaiting cost estimate from vendor).

### Semiannual Discharge Monitoring

A sample of the treatment system effluent was collected and submitted to ALS laboratory for the following analysis: volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 624, metals (cadmium, chromium copper, nickel, lead and zinc) by USEPA method 200.7, cyanide by USEPA method 9012B and pH by Standard Method 4500. Laboratory results indicate concentrations are below the publicly owned treatment water (POTW) discharge criteria (see below). The field data record and laboratory report are included in Attachment 2.

#### Results Semiannual Discharge March 2013

POLLUTANT/PARAMETER	POTW Limit	March 2013 Results
Total Flow, gal/month	No Limit	
pH	5.0-12.5	<b>7.19</b>
Cadmium, mg/L	1	0.00035 U
Chromium, mg/L	5	0.00082 U
Copper, mg/L	3	<b>0.0029 J</b>
Lead, mg/L	5	0.00081 U
Nickel, mg/L	2	<b>0.037 J</b>
Zinc, mg/L	4	<b>0.0028 J</b>
Cyanide, mg/L	3	0.01 U
Total VOCs, mg/L	2.0*	<b>0.024</b>

mg/L- milligrams per liter

\*Total Volatile Organics is the sum of all detectable VOCs.

Bold results indicate the parameter was detected.

J=estimated value

U=not detected; value represents the sample quantitation limit

May 2013

## Conclusions

The Site's groundwater collection system was observed in operational condition at the time of the March 2013 inspection event. Issues have been observed in the recent past with the basket strainers being clogged upon arrival to the site resulting in low flow observed (~ 5 gpm) at the totalizer. The flow is observed to resume to normal operating conditions (~ 30 gpm) after the strainers are cleaned. As the basket strainers are not required to comply with the POTW discharge permit the baskets were removed during this inspection event.

## Recommendations

Recommendations for the items described above are as follows:

- Continue inspections and performance monitoring on a semi-annual basis.
- Subcontract with a fencing company to complete the fence repairs.

MACTEC will coordinate and implement these recommendations with concurrence and approval by the NYSDEC. The next semiannual inspection event will occur in September 2013.

Please feel free to contact us if you have any questions.

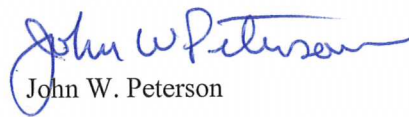
Sincerely,

**MACTEC Engineering & Consulting, P.C.**



Jayme P. Connolly

Project Manager



John W. Peterson

Principal Professional

## Enclosures

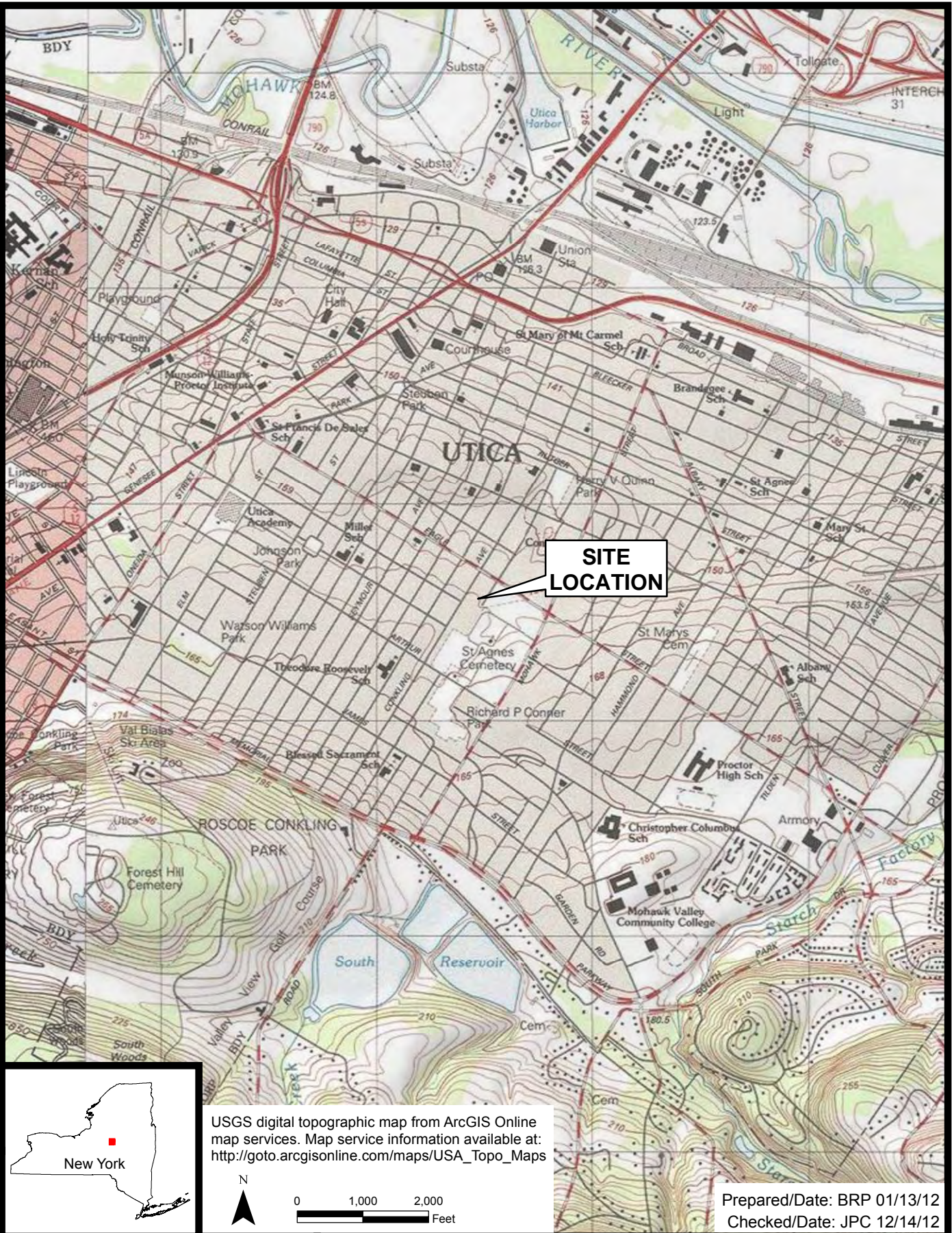
Attachment 1: Inspection Form & Photos

Attachment 2: Field Data Records, Lab Report, and Chain of Custody

## **REFERENCES**

New York State Department of Environmental Conservation, 2012. WA Approval Letter, Contract/WA No.: D007619-18, Primoshield, Incorporated Site No.: 633027, October 5, 2012.





PRIMOSHIELD INC.  
UTICA, NEW YORK



SITE LOCATION

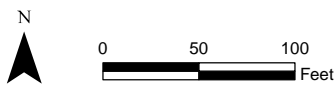
Project 3612-12-2251 Figure 1



Document: P:\Projects\project\Contrats D004434 and D004444\projects\Primoshield, incorporated\4.0\_Deliverables\4.5\_Databases\GIS\MapDocuments\Primoshield\_SitePlan\_8.5x11P.mxd  
PDF: P:\Projects\project\Contrats D007619\Projects\Primoshield - SM\4.0\_Deliverables\4.1\_Reports\Figure 2 - Site Plan.pdf 12/19/2012 2:40 PM brian.peters



- Legend**
- Monitoring Well
  - Cleanout access point
  - 4-foot diameter manhole
  - Discharge to sanitary sewer
  - Perimeter Fence
  - Perimeter Fence Gate
  - Underground collection trench
  - Approximate GW flow direction



Oneida County color digital orthoimagery (2008) from New York State GIS Clearinghouse at: <http://www.nysgis.state.ny.us>

Prepared/Date: BRP 12/19/12  
Checked/Date: JPC 12/19/12

PRIMOSHIELD INC.  
UTICA, NEW YORK



**SITE PLAN**  
Project 3612-12-2251 Figure 2

**ATTACHMENT 1**

**INSPECTION FORM & PHOTOS**



New York Department of Environmental Conservation  
Inactive Hazardous Waste Site  
Inspection Form-Treatment Systems

pg 1 of 2

Site Name: <i>Primoshield Inc.</i>		NYSDEC Site Number: <i>633027</i>	NYSDEC PM: <i>Will Welling</i>
Site Location: <i>St. Vincent Street, Utica, NY</i>		Site Classification # (circle): 1 2 2a 3 <b>4</b>	Primary Site Contact: <i>Will Welling</i> <i>WV</i>
Site Inspection Date: <i>3/26/13</i>		Purpose of Inspection: <i>Quarterly</i>	
Name of Inspector: <i>Jeri Kiburz</i>	Title: <i>Env. Tech.</i>	Agency/Company: <i>MACTEC/AMEC</i>	Address: <i>511 Congress Street, Suite 200 Portland, ME 04101</i>
Phone Number: <i>518-848-8426 (cell)</i>			

Treatment Systems				
System Status			General Observations:  System in auto and cycling upon arrival. Switched to manual and pump began operating ok. Switched pump off and cleaned basket strainers. Strainers had been operating in tandem and both were ~50%. Very fine silt removed. Per J. Connolly (AMEC) strainers were removed from housing and system operating w/o them.	
System in Operation During Visit?	<i>Yes</i>	<i>No</i>		
Manned on a Fulltime basis?	<i>Yes</i>	<i>No</i>		<i>NA</i>
Maintenance Logs Current?	<i>Yes</i>	<i>No</i>		<i>NA</i>
Equipment Calibration Logs Current?	<i>Yes</i>	<i>No</i>		<i>NA</i>
Pump working?	<i>Yes</i>	<i>No</i>		
Initial flow rate (gpm):	<i>~28</i>			
Pressure before basket strainers (P1):	<i>0</i>			
Pressure after basket strainers: (P2)	<i>0</i>			
Basket Strainer Inspected and cleaned?	<i>Yes</i>	<i>No</i>		
Flow rate after cleaning filters (gpm):	<i>~30</i>			
Pressuer after cleaning basket strainers: (P1)	<i>Yes</i>	<i>No</i>		
Totalizer reading (gallons)	<i>493359 @ 0955am.</i>			
Discharge/Monitoring				
Does the system require a discharge permit or discharge to a POTW?	<i>Yes</i>	<i>No</i>		
Is Permit Performance Monitoring Implemented?	<i>Yes</i>	<i>No</i>		
Condition of Operational Controls				
Condition of Gauges	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Condition of flow meters	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Condition of System Alarms	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Condition of Pumps	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Condition of Flow Pipes or Hoses	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Pipes Labeled with Direction of Flow and Contents	<i>Yes</i>	<i>No</i>		<i>NA</i>
Condition of Valves	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Condition of Containment Structures (berms etc.)	<i>Good</i>	<i>Poor</i>		<i>NA</i>
Evidence of Leaking	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Condition of Feed/Extraction Pumps	<i>Good</i>	<i>Poor</i>	<i>NA</i>	
Vaulted Area Condition	<i>Good</i>	<i>Poor</i>	<i>NA</i>	
Lighting in Work Areas Adequate	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Condition of Collection/Discharge/Trenches				
Clean of Debris	<i>Good</i>	<i>Poor</i>	<i>NA</i>	
Evidence of Sedimentation	<i>Good</i>	<i>Poor</i>	<i>NA</i>	
Air Strippers Condition				
Noticeable Odors	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Air Emission Permit Required	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Permit Performance Monitoring Implemented	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Condition of Storage Tanks/Containers				
Evidence of Leaks	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Tank Compatible with Contents	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Evidence of Leaks	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Labeled Appropriately	<i>Yes</i>	<i>No</i>	<i>NA</i>	
Condition of Filter Presses				
Condition of Extraction Vents/Recharge Vents	<i>Good</i>	<i>Poor</i>	<i>NA</i>	

List other applicable treatment systems/components and their overall condition:

Chemical Handling Practices			
Are good management practices and handling requirements being applied?	<i>Yes</i>	<i>No</i>	<i>NA</i>
Does the usage of chemical for the treatment system appear to meet O&M specifications?	<i>Yes</i>	<i>No</i>	<i>NA</i>
			General Observations: <i>No Chemicals in use!</i>

Primo shield  
3/26/13

New York Department of Environmental Conservation  
Inactive Hazardous Waste Site  
Inspection Form-Treatment Systems

pg. 2 of 2

(JK)

Interviews/Additional Contacts			
Name/Title	Phone:	Company/Entity	Contact Information

Additional Observation Notes:

wells 1075 - concrete pad heaved, casing very loose.  
1015 - casing bent.

Perimeter Fencing in need of repair in 2 locations.

Photograph Log:

Photograph 1	Monitoring well P1015 damage view
Photograph 2	Monitoring well P-1010 cracked concrete
Photograph 3	Monitoring well P-1010 (front) & P-1015 (Back)
Photograph 4	Monitoring well P-108 slight heaving of concrete pad (view1)
Photograph 5	Monitoring well P-108 slight heaving of concrete pad (view2)
Photograph 6	Basket Strainers from the Treatment system
Photograph 7	View of holders for the basket strainers
Photograph 8	Electric control panel on north wall of treatment building
Photograph 9	Monitoring well P-1075
Photograph 10	Monitoring well P-1070 (see list of remaining photos)

Performance Monitoring

Were check samples collected during this visit? ☒ Yes ☐ No

Sample type collected (circle or write in other): Groundwater Effluent Discharge Monitoring

List Parameters/Methods Collected Per Media:

VOC (624)  
Cyanide (9010)  
pH (150.1)  
Cadmium, Chromium, Copper, Lead, Nickel, Zinc (200.7)

Analytical Laboratory/Location:

Sample Observations:

## Photo Log (con'd)

11. North end of Treatment building and water collection manhole
12. collection manhole
13. Monitoring wells P-106S (back) and P-106D (front)
14. Slightly heaved cleanout cap near P-106S/D
15. Monitoring well P-103
16. Gap in fence near P-106S/D
17. Fence after repair
18. Hole in fence near northwest corner, Conkling Avenue
19. Fence after repair (temporary)
20. Loose fence post against building and southern perimeter of fence
21. Monitoring well P-105
22. Cleanout cover in southeast corner of site
23. South end of Treatment building and gravel entry drive
24. Cleanout cover North of site looking south
25. Collection manhole cover
26. north end interior of Treatment building





Photo 1: Monitoring Well P101S damage view



Photo 2: Monitoring Well P-101D cracked concrete, tilted possibly from snow plowing.





Photo 3: Monitoring Well P-101D (front) and P-101S (back)



Photo 4: Monitoring Well P-108 slight heaving of concrete pad (view 1)





Photo 5: Monitoring Well P-108 slight heaving of concrete pad (view 2)



Photo 6: Basket strainers from the Treatment system





Photo 7: View of holders for the basket strainers



Photo 8: Electric control panel on north wall of Treatment building



Photo 9: Monitoring Well P-107S



Photo 10: Monitoring Well P-107D





Photo 11: North end of Treatment building and water collection manhole



Photo 12: Collection manhole





Photo 13: Monitoring Wells P-106S (back) and P-106D (front)



Photo 14: Slightly heaved cleanout cap near P-106S/D





Photo 15: Monitoring Well P-103



Photo 16: Gap in fence near P-106S/D



Primoshield, Incorporated - March 2013  
Photographs



Photo 17: Fence after repair



Photo 18: Hole in fence near northwest corner, Conkling Avenue





Photo 19: Fence after repair (temporary)



Photo 20: Loose fence post against building and southern perimeter of site (repair pending)





Photo 21: Monitoring Well P-105



Photo 22: Cleanout cover in southeast corner of site





Photo 23: South end of Treatment building and gravel entry drive



Photo 24: Cleanout cover north of site looking south





Photo 25: Collection manhole cover



Photo 26: North end interior of Treatment building

## **ATTACHMENT 2**

### **FIELD DATA RECORDS, LAB REPORT, AND CHAIN OF CUSTODY**





April 23, 2013

Service Request No: R1302097

Ms. Jayme Connolly  
AMEC Environmental & Infrastructure  
511 Congress Street  
Portland, ME 04112-7050

**Laboratory Results for: NYSDEC Primoshield/3612122251**

Dear Ms. Connolly:

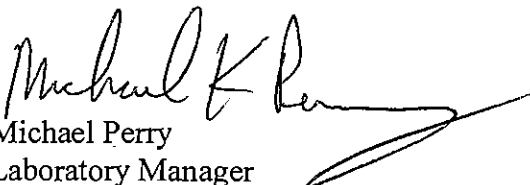
Enclosed are the results of the sample(s) submitted to our laboratory on March 29, 2013. For your reference, these analyses have been assigned our service request number **R1302097**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at [Mike.Perry@alsglobal.com](mailto:Mike.Perry@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Michael Perry  
Laboratory Manager

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## ALS Environmental

**Client:** AMEC  
**Project:** NYSDEC Primoshield  
**Sample Matrix:** Water

**Service Request No.:** R1302097  
**Project Number:** 361222251  
**Date Received:** 3/29/13

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, ASP-B deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

#### Sample Receipt

AMEC water samples were collected on 3/26/13 - 3/27/13 and received at ALS in good condition at a cooler temperature of 4.7 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and CAS Job #.

#### Inorganic Analysis

One water sample was analyzed for TCN by EPA method 9012B and pH by method SM 4500-H+.

All blank spike recoveries (LCS) were within QC limits.

No analytical or QC problems were encountered.

#### Metals Analysis

One water sample was analyzed for a site list of metals by EPA method 200.7. Ten water samples were analyzed for a site list of total metals and two water samples were analyzed for a site list of dissolved metals by SW-846 method 6010C.

All blank spike recoveries (LCS) were within QC limits.

No analytical or QC problems were encountered.

#### Volatile Organic Analysis

One water sample was analyzed for the PPL list of volatiles by EPA method 624. Eleven water samples were analyzed for TCL volatiles by SW-846 method 8260C.

The initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were within acceptance.

All blank spike recoveries (LCS) were within QC limits.

All recoveries were within QC limits.

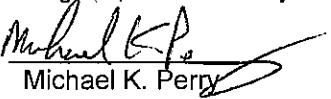
The laboratory blanks were free of contamination except a "J" flagged value for Bromomethane. Any data detected within 5X this value in the samples was flagged with a "B".

All samples were analyzed within the 14 day holding time as specified in the method.

No other analytical or QC problems were encountered.



I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package, has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
Michael K. Perry  
Laboratory Manager

4/23/13  
Date

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 3612122251

Submission: R1302097

Client: AMEC Environmental & Infrastructure

Client Rep: MPERRY

Project: NYSDEC Primoshield

Batch Complete: Yes

Diskette Requested: Yes

Date: 4/1/13

Custody Seal: Present/Absent:

Chain of Custody: Present/Absent:

Date Revised:

Date Due: 4/19/13

Protocol: SW846

Shipping No.:

SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1302097-001	633027P101DXX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-002	633027P104XX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-003	633027P104XXD	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-004	633027P108XX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-005	633027P107DXX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-006	633027P107DXX Dissolved	Water	6010C	3/27/13	3/29/13			
R1302097-007	633027P103XX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-008	633027P106DXX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-009	633027P105XX	Water	6010C, 8260C	3/26/13	3/29/13			
R1302097-010	633027TB1	Water	8260C	3/26/13	3/29/13			
R1302097-011	633027P107SXX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-012	633027P107SXX Dissolved	Water	6010C	3/27/13	3/29/13			
R1302097-013	633027P106SXX	Water	6010C, 8260C	3/27/13	3/29/13			
R1302097-014	633027Effluent	Water	624, SM 4500-H+ B, 200.7, 9012B	3/28/13	3/29/13			

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## REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$  Difference between two GC columns).
- X See Case Narrative for discussion.



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

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## Cooler Receipt and Preservation Check Form

Project/Client AMEC Folder Number R2097Cooler received on 3-29-13 by: ME COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant\* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 4.7°

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y NIf No, Explain Below Date/Time Temperatures Taken: 3-29-13 @ 10:08Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &amp; Client Approval to Run Samples:

All Samples held in storage location R-602 by ME on 3-29-13 at 10:10

5035 samples placed in storage location by on at

PC Secondary Review:

Cooler Breakdown: Date: 3/29/13 Time: 1334 by: ME

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
≥12	NaOH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>WC112191C</u>	<u>2/14</u>					
≤2	HNO <sub>3</sub>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>BDB26126P</u>	<u>2/17</u>					
≤2	H <sub>2</sub> SO <sub>4</sub>	<input type="checkbox"/>	<input type="checkbox"/>							
<4	NaHSO <sub>4</sub>	<input type="checkbox"/>	<input type="checkbox"/>							
Residual Chlorine (-)	For TCN Phenol and 522	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If present, contact PM to add ascorbic acid Or sodium sulfite (522)						No = Samples were preserved at lab as listed  PM OK to Adjust:
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	<input type="checkbox"/>	<input type="checkbox"/>							
	Zn Aceta	<input type="checkbox"/>	<input type="checkbox"/>							
	HCl	<input type="checkbox"/>	<input type="checkbox"/>							

\*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers:

Other Comments:

010713-2A

Metals bottle for "633027P106DXX" labeled w/ "D" as "633027P106XX"

PC Secondary Review: ME 3/29/13

\*significant air bubbles: VOA &gt; 5-6 mm : WC &gt; 1 in. diameter

## ALS ENVIRONMENTAL

## Analytical Report

Client: AMEC Environmental & Infrastructure (Formerly MACTEC)  
 Project: NYSDEC Primoshield/3612122251  
 Sample Matrix: Water

Service Request: R1302097  
 Date Collected: 3/28/13 1000  
 Date Received: 3/29/13  
 Date Analyzed: 4/1/13 17:20

Sample Name: 633027Effluent  
 Lab Code: R1302097-014

Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 624  
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040113\Z6254.D\

Analysis Lot: 334553  
 Instrument Name: R-MS-06  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	8.8		1.0	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	
107-06-2	1,2-Dichloroethane	1.0	U	1.0	
78-87-5	1,2-Dichloropropane	1.0	U	1.0	
110-75-8	2-Chloroethyl Vinyl Ether	10	U	10	
107-02-8	Acrolein	10	U	10	
107-13-1	Acrylonitrile	10	U	10	
71-43-2	Benzene	1.0	U	1.0	
75-27-4	Bromodichloromethane	1.0	U	1.0	
75-25-2	Bromoform	1.0	U	1.0	
74-83-9	Bromomethane	1.0	U	1.0	
56-23-5	Carbon Tetrachloride	1.0	U	1.0	
108-90-7	Chlorobenzene	1.0	U	1.0	
75-00-3	Chloroethane	1.0	U	1.0	
67-66-3	Chloroform	1.0	U	1.0	
74-87-3	Chloromethane	1.0	U	1.0	
124-48-1	Dibromochloromethane	1.0	U	1.0	
75-09-2	Methylene Chloride	1.0	U	1.0	
100-41-4	Ethylbenzene	1.0	U	1.0	
127-18-4	Tetrachloroethene (PCE)	1.0	U	1.0	
108-88-3	Toluene	1.0	U	1.0	
79-01-6	Trichloroethene (TCE)	15		1.0	
75-69-4	Trichlorofluoromethane (CFC 11)	1.0	U	1.0	
75-01-4	Vinyl Chloride	1.0	U	1.0	
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
95-47-6	o-Xylene	1.0	U	1.0	
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	



# ALS ENVIRONMENTAL

## Analytical Report

**Client:** AMEC Environmental & Infrastructure (Formerly MACTEC)  
**Project:** NYSDEC Primoshield/3612122251  
**Sample Matrix:** Water

**Service Request:** R1302097  
**Date Collected:** 3/28/13 1000  
**Date Received:** 3/29/13  
**Date Analyzed:** 4/1/13 17:20

**Sample Name:** 633027Effluent  
**Lab Code:** R1302097-014

**Units:** Percent  
**Basis:** NA

### Volatile Organic Compounds by GC/MS

**Analytical Method:** 624  
**Data File Name:** I:\ACQUDATA\MSVOA6\DATA\040113\Z6254.D\

**Analysis Lot:** 334553  
**Instrument Name:** R-MS-06  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	95	79-123	4/1/13 17:20	
4-Bromofluorobenzene	100	79-119	4/1/13 17:20	
Toluene-d8	101	83-120	4/1/13 17:20	

## METALS

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

633027Effluent

Contract: R1302097

Lab Code:

Case No.:

SAS No.:

SDG NO.: 633027P101DX

Matrix (soil/water): WATER

Lab Sample ID: R1302097-014

Level (low/med): LOW

Date Received: 3/29/2013

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	0.353	U		P
7440-47-3	Chromium	0.816	U		P
7440-50-8	Copper	2.9	J		P
7440-02-0	Nickel	36.7	J		P
7439-92-1	Lead	0.813	U		P
7440-66-6	Zinc	2.8	J		P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:



# ALS ENVIRONMENTAL

## Analytical Report

**Client:** AMEC Environmental & Infrastructure (Formerly MACTEC)  
**Project:** NYSDEC Primoshield/3612122251  
**Sample Matrix:** Water  
**Sample Name:** 633027Effluent  
**Lab Code:** R1302097-014

**Service Request:** R1302097  
**Date Collected:** 3/28/13 1000  
**Date Received:** 3/29/13

**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Total	9012B	0.010	U	mg/L	0.010	1	4/ 1/13	4/2/13 11:02	
pH	SM 4500-H+ B	7.19		pH Units		1	NA	4/1/13 12:45	H
Temperature of pH Analysis	SM 4500-H+ B	18.5		deg C		1	NA	4/1/13 12:45	H