

Ms. Mary Vanderlaan
Supervisor, Lansing District
Michigan Department of Environmental Quality
Water Resources Division
P. O. Box 30242
Lansing, MI 48909

Arcadis of Michigan, LLC
101 S Washington Square
Suite 400
Lansing
Michigan 48933
Tel 517 337 0111
Fax 517 337 0417
www.arcadis.com

Subject:
NPDES Permit No. MI0001597
2015 Annual Pollution Minimization Program Report for Polychlorinated
Biphenyls
RACER Trust Buick City – Flint, Michigan

ENVIRONMENT

Date:
May 13, 2016

Dear Ms. Vanderlaan:

Contact:
Christopher S. Peters

This 2015 Annual Pollutant Minimization Program (PMP) Report for polychlorinated biphenyls (PCBs) is submitted by ARCADIS on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust for the Buick City Site (the Site), which is located at 902 East Leith Street in Flint, Michigan, to comply with Part 1, Section A (6) of the National Pollutant Discharge Elimination System (NPDES) permit for the Site (No. MI0001597). The goal of the PMP is to maintain the effluent concentration of total PCBs at or below 0.026 nanograms per liter (ng/L) at Monitoring Point 003A. As required per the above referenced NPDES permit, the permittee shall submit on or before May 15 of each year a status report to the Michigan Department of Environmental Quality (MDEQ) that includes: 1) an updated list of potential sources, 2) documentation of oil releases to the Flint River, if any, 3) a summary of all actions taken to reduce or eliminate identified sources of PCBs, and 4) the monitoring results for the previous year.

Phone:
517 324 5052

Email:
chris.peters
@arcadis.com

Our ref:
B0064410.2016

1 LIST OF POTENTIAL PCB SOURCES

The sources of PCBs at the Site are the Light Non-Aqueous Phase Liquid (LNAPL) plumes. Previously known potential sources of PCBs are present at eight discrete areas of the Site, as follows:

- former Factory 10/Scrapyard Area (Area of Interest (AOI) 10-1 and AOI 10-4),
- former Factory 81 Area (AOI 81-2),

- former Factory 05 Area (AOI 05-1 and AOI 05-5),
- former Building 86/Leith Street Overpass Area (AOI 86-1),
- former Factory 83/84 Area (AOI 83/84-2),
- former Building 12 Area (AOI 12-A, AOI 12-B and AOI 12-C),
- former Factory 40 Tunnel Area (AOI 40-D), and
- former Building 30 Area (Area of Interest 03-1).

PCBs were previously identified in LNAPL in the former Factory 81 AOI 81-2 area during Site investigation activities completed in 2013. However, during investigation activities in 2014 PCBs were also identified in surface soils (0 to 2 feet below ground surface) at concentrations ranging from 0.35 to 15 parts per million.

A Site location map showing these areas is included as **Figure 1**.

2 OIL RELEASES TO THE FLINT RIVER

There were no observed oil releases to the Flint River from Site outfalls in 2015.

3 ACTIONS TAKEN TO REDUCE OR ELIMINATE PCB SOURCES AND TO MAINTAIN PCB EFFLUENT CONCENTRATIONS BELOW NPDES CRITERION

Oil Absorbent Booms

RACER maintains oil absorbent booms and oil containment booms at Outfalls 002, 003, 004 and 005 in order to contain periodic oil sheens at the Flint River. Refer to **Figure 2** for outfall protection systems. The booms at each outfall consist of multiple lines of oil absorbent booms to contain and absorb oil during outfall flow and an oil containment curtain set farther out into the river to physically contain any discharge during high flow events. All booms are installed in such a manner that allows them to adjust to the fluctuating river level. The outfall containment areas are currently inspected at a minimum of once per week, and before and after precipitation events. Visual inspection includes documentation of oil/debris accumulation, absorbent boom saturation, and that the containment booms are in good condition and functioning properly. Based on visual observations, the booms are changed on an as-needed basis to ensure proper working order. In addition, accumulated oil and debris in the outfall containment areas are removed via oil absorbents and manual skimming on an as-needed basis to prevent potential environmental releases.

Outfalls 003 and 004

Construction of the Outfall 003/004 Stormwater Diversion and Treatment System (Outfall 003/004 System) was completed in January 2011 and it continues to remove oils and sediment from the Outfall 003 and 004 storm sewers prior to reaching the Flint River (refer to **Figure 2** for location of the Outfall 003/004 System). During dry weather flow conditions, water, oil and debris from both storm sewers 003 and 004 are diverted into a common manhole at the BaySeparator™, from which oil and water are

discharged to an oil/water separator, and subsequently water is discharged back into storm sewer 003 for discharge to the Flint River. Therefore, at dry weather flow conditions the only flow discharging to Outfall 004 is whatever infiltrates the storm sewer between the diversion structure and the outfall. The Outfall 003/004 System is design to capture dry weather and first flush stormwater flow. During stormwater conditions, water in the sewers is diverted around the Outfall 003/004 System and discharges directly to both outfalls.

The Outfall 003/004 System is maintained at least once per week. Water levels and oil levels are actively being monitored in vaults, the BaySeparator™ manholes, and the oil-water separator. Storm water downstream of the Outfall 003/004 System is also being monitored in manholes as well as the Flint River outfalls to check for accumulating oils. Routine maintenance events were scheduled based on field observations and include the following tasks: removal of debris and trash racks from the diversion structures, jetting of HDPE piping to clear blockage, and an annual cleaning event of the BaySeparator™ system. The last BaySeparator™ cleaning event was performed in December 2014 and included removal of 22,739 gallons of an oil and water mixture (non-Toxic Substances Control Act (TSCA) regulated). The next BaySeparator™ cleaning is scheduled for spring 2016.

In addition to the Outfall 003/004 System, Oil Interceptor #2 (**Figure 2**), which is located upstream of the Outfall 003/004 System, continues to function as an in-line oil water separator along one of the Outfall 003 storm sewer mains to prevent oil and debris from reaching the Flint River. RACER maintains Oil Interceptor #2 by utilizing two rows of oil absorbent booms spanned perpendicular to the direction of flow. The booms are inspected on a weekly basis for oil/debris accumulation, absorbent boom saturation, and that the absorbent booms are in good condition and functioning properly. Based on visual observations, the booms are changed and debris removed on an as-needed basis to ensure proper working order. In 2015 one maintenance event was performed on Oil Interceptor #2, resulting in the collection and disposal of 7 drums (an estimated 597 kilograms) of TSCA PCB waste.

Within the Outfall 003 drainage area, several storm sewer laterals were bulkheaded or plugged to eliminate sections of the sewer with oil infiltration. Locations of those laterals are shown on **Figure 2**.

In 2015, the upgradient (off-Site) drainage to the Outfall 004 storm sewer was permanently diverted to the Outfall 013 storm sewer (**Figure 2**) in order to allow for future bulkheading further downgradient in the Outfall 004 storm sewer. As part of the diversion a bulkhead was placed in the Outfall 004 storm sewer at Manhole 4-23.

Outfall 005

P-traps previously installed in the Leith Street Overpass under drain system continue to be monitored quarterly to verify their continued operation and check for the presence of LNAPL. The purpose of the P-traps is to eliminate the migration of LNAPL through the foundation drain and into the Outfall 005 storm sewer system.

In 2012 boom studies were performed along the Outfall 005 storm sewer at select locations to determine oil infiltration locations and identify potential bulkheading locations. Bulkheading of Outfall 005 near the south end of former Factory 83/84 was completed in May 2013, which eliminated the Site's contribution to

the Outfall, only leaving the drainage from Leith Street and the adjacent property owner as contributors to this storm sewer. Bulkhead locations are indicated on **Figure 2**.

4 MONITORING RESULTS

Monitoring results for the previous year are provided in attachments to this document and include:

- **Attachment 1** – Presents the quarterly progress reports submitted to the Environmental Protection Agency (EPA) concerning work completed as part of the RCRA Corrective Action program. The four reports (Quarterly Progress Report No. 11, 12, 13 and 14) submitted in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent, Docket Number RCRA-05-2011-0024, cover the timeframe from January 1, 2015 through December 31, 2015.
- **Attachment 2** – Presents the analytical results from the Monitoring Point 003A weekly dry weather and yearly wet weather samples submitted for PCB analysis. PCBs were not detected. Please note that the wet weather sample for Outfall 003A was collected on the same day as the weekly dry weather sample for that week (May 27, 2015). The dry weather sample is 24-hour composite sample where collection of the sample began on the previous day (May 26, 2015). After the sample was collected in the morning of May 27, the Site experienced a rainfall event, and the wet weather sample (which is a grab sample) was collected later that day.
- **Attachment 3** – Presents the inspection notes from the Outfall 003/004 BaySaver separation system.

Please contact me at 517.324.5052 at your convenience if you have any questions or require further information regarding this submittal.

Sincerely,

Arcadis of Michigan, LLC



Christopher S. Peters, P.G.
Vice President

Copies:

Chris Black, USEPA Region 5
Grant Trigger, RACER Trust
Dave Favero, RACER Trust

Ms. Mary Vanderlaan
May 13, 2016

Enclosures:

Figures

- 1 Site Location Map
- 2 PCB Minimization Controls

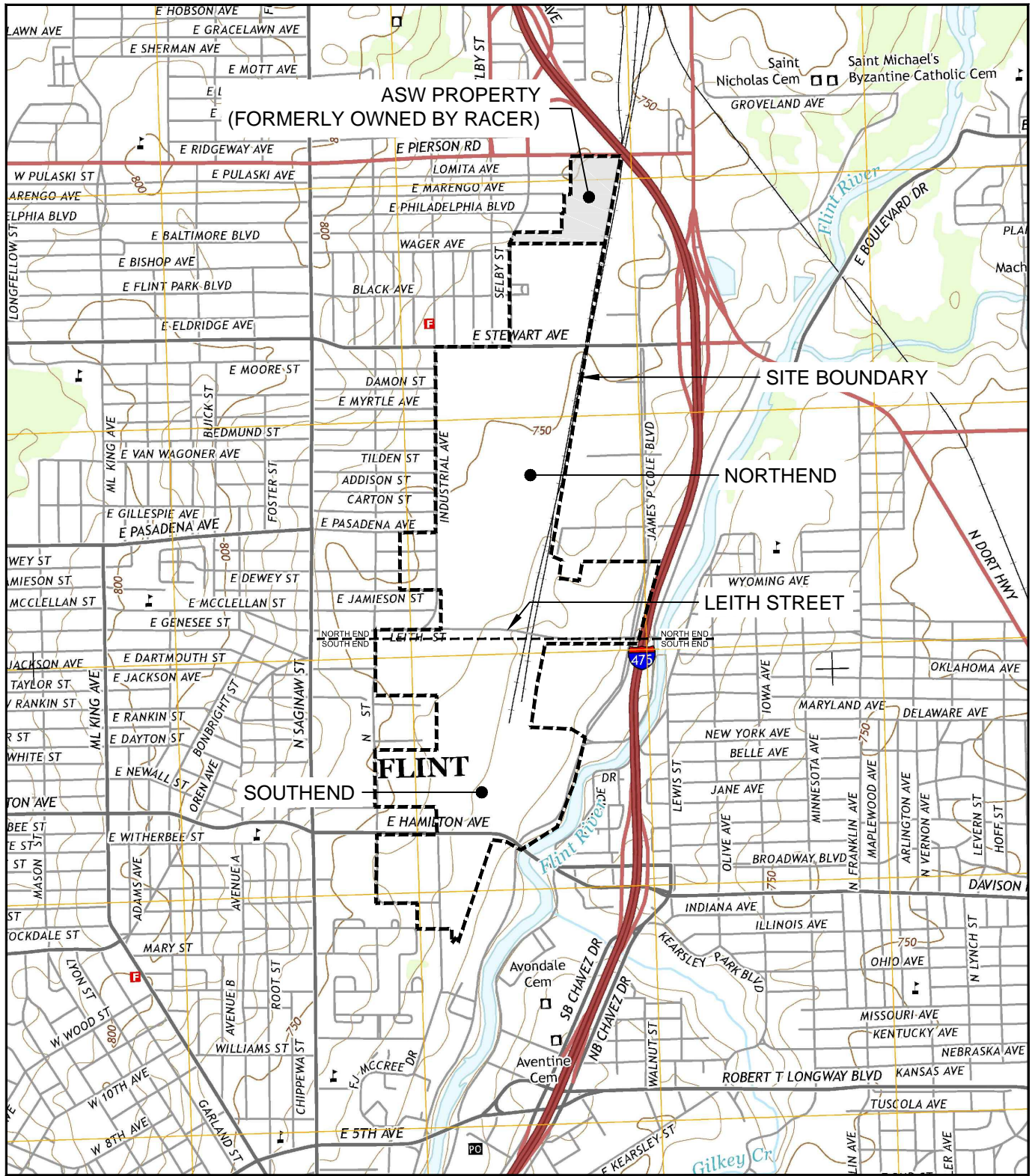
Attachments

- 1 RCRA Corrective Action Program - Quarterly Progress Reports
- 2 2015 Outfall 003 Dry and Wet Weather Storm Water Sampling Results
- 3 2015 Field Inspection Notes – Outfall 003/004 BaySaver Separation System

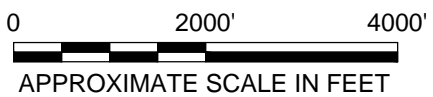
FIGURES



CITY:SYRACUSE,NY DIV:GROUP:ENV DBA:SANCHEZ LD:GMS PIC:C.S.PETERS P:MC.KIKER T:MC.KIKER L:YR:(Op)ON*-OFF*-REF-
 G:\ENV\CAD\GIS\MI\RET\TURN-TO-SYRACUSE\B64470401.dwg LAYOUT: 1 SAVED: 4/18/2016 1:08 AM ACADVER: 19.1S (LIMS TECH) PAGESETUP: ---- PLOTTED: 5/11/2016 9:01 AM BY: AKENS, DAVID
 XREFS: IMAGES: PROJECTNAME: ---- MI_Flint_North.jpg

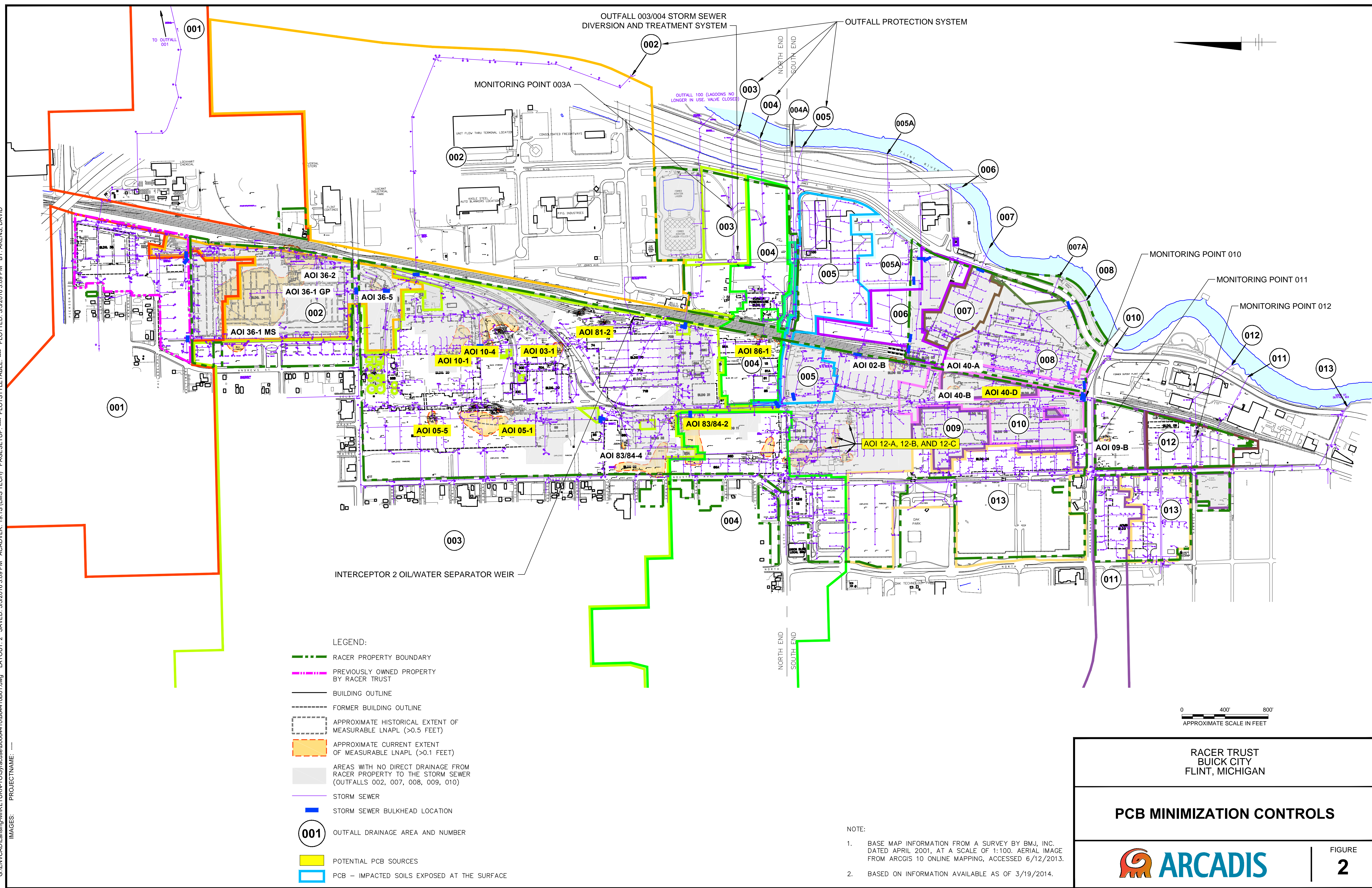


SOURCE: USGS 7.5 MIN., FLINT NORTH QUADRANGLE, FLINT NORTH 2014



<p>RACER TRUST BUICK CITY FLINT, MICHIGAN</p>	
<p>SITE LOCATION MAP</p>	
	<p>Design & Consultancy for natural and built assets</p>
<p>FIGURE 1</p>	

CITY: SYRACUSE DIV/GROUP: 141 DB: A SANCHEZ LD: GMS PIC: C.S. PETERS PM: C. KIKER TM: C. KIKER LVR: ON+OFF=REF
 G:\ENV\CAD\Lansing-MIP\RETURN-TOSyracuse\B0064410\B064410B01.dwg LAYOUT: 2_SAVED: 5/5/2016 3:09 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ... PLOTSTYLETABLE: ... PLOTTED: 5/5/2016 3:09 PM BY: AKENS, DAVID



- LEGEND:**
- RACER PROPERTY BOUNDARY
 - PREVIOUSLY OWNED PROPERTY BY RACER TRUST
 - BUILDING OUTLINE
 - FORMER BUILDING OUTLINE
 - APPROXIMATE HISTORICAL EXTENT OF MEASURABLE LNAPL (>0.5 FEET)
 - APPROXIMATE CURRENT EXTENT OF MEASURABLE LNAPL (>0.1 FEET)
 - AREAS WITH NO DIRECT DRAINAGE FROM RACER PROPERTY TO THE STORM SEWER (OUTFALLS 002, 007, 008, 009, 010)
 - STORM SEWER
 - STORM SEWER BULKHEAD LOCATION
 - 001 OUTFALL DRAINAGE AREA AND NUMBER
 - POTENTIAL PCB SOURCES
 - PCB - IMPACTED SOILS EXPOSED AT THE SURFACE

NOTE:

1. BASE MAP INFORMATION FROM A SURVEY BY BMJ, INC. DATED APRIL 2001, AT A SCALE OF 1:100. AERIAL IMAGE FROM ARCGIS 10 ONLINE MAPPING, ACCESSED 6/12/2013.
2. BASED ON INFORMATION AVAILABLE AS OF 3/19/2014.

RACER TRUST
BUICK CITY
FLINT, MICHIGAN

PCB MINIMIZATION CONTROLS

FIGURE
2

ATTACHMENT 1

RCRA Corrective Action Program - Quarterly Progress Reports



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis-us.com

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
Land and Chemicals Division
77 W. Jackson Blvd. DE-97
Chicago, IL 60604-3590

ENVIRONMENT

Subject:
First Quarter 2015 Progress Report (No. 15)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Date:
April 15, 2015

Contact:
Micki M. Maki

Dear Mr. Black:

Phone:
248.994.2271

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), ARCADIS is submitting this First Quarter 2015 Progress Report (No. 15) in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent (Consent Order), Docket Number RCRA-05-2011-0024 for the Buick City Site located in Flint, Michigan (the Site), which was effective on September 29, 2011.

Email:
[Micki Maki@arcadis-us.com](mailto:Micki.Maki@arcadis-us.com)

Please note that in accordance with General Motors Corporation's Administrative Order on Consent Number R8H-5-00-02 for the North American Operations [NAO] Flint Operations Site (also known as Buick City) Quarterly Progress Reports No.1 through 46 were submitted to the United States Environmental Protection Agency (EPA) documenting Site activities from January 1, 2000 through June 30, 2011.

Our ref:
B0064410.2015

This First Quarter 2015 Progress Report (No. 15) covers the period of January 1, 2015 through March 31, 2015.

Please note that this quarterly progress report has been updated to reflect the new 2015 project task numbers and names.

The following briefly summarizes the work performed and data collected, problems encountered, project schedule, and estimated percent complete for a list of activities.

1. Data Collected This Quarter

The samples collected as part of Site investigation or monitoring activities during this quarter are discussed below. This data will be presented to the EPA in the 2015 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

In January and February ARCADIS conducted the “NPDES Plus” Monitoring Program (NPMP) sampling program. The NPMP typically consists of collecting monthly samples from the following Site storm sewers as access allows MP001, MP003, MP006, MP011, and MP013. The NPMP data will be included in the Annual CMI Report or CMI work plan, as appropriate. The NPMP monthly sampling program was discontinued in March 2015. Future NPMP activities will consist of completing additional investigations to identify potential sources of impacts from the onsite drainage area as well as impacted contributions from offsite sources.

As required per Part 1, Section A2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2015 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

1.2 AOI 83/84-5 Soil Gas and Soil Samples

In February 2015 two soil gas probes were installed and sampled on RACER property located on the west side of Industrial Avenue, across from the AOI 83/84-5 LNAPL Area. While installing the probes impacted soils were noted at one of the locations; therefore, a soil sample was collected of the most impacted interval from both soil probe locations.

The soil gas samples were submitted for analysis of volatile organic compounds (VOCs) by Method TO-15 and Methane by USEPA Method RSK-175. The soil samples were submitted to the laboratory for analysis of VOCs, semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs).

1.3 Groundwater Samples

In March 2015 groundwater samples were collected from 47 existing Site monitoring wells as part of the 1,4-Dioxane investigation. The groundwater samples were

submitted to the laboratory for analysis of VOCs by Method 8260SIM. The 1,4-Dioxane data will be presented in a summary memo.

Also in March 2015, groundwater samples were collected from three monitoring wells located at Waste Management Unit (WMU) #7. The groundwater samples were submitted for laboratory analysis of F-scan VOCs and SVOCs and methanol. The WMU #7 data will be presented in a summary memo.

1.4 Soil Samples

In March 2015, fifteen soil samples were collected from the AOI 36-1/36-2 LNAPL Area to further characterize the extent of impacts exceeding the Michigan Department of Environmental Quality (MDEQ) nonresidential infinite source volatile soil inhalation (ambient air) criteria. The soil samples were submitted for analysis of VOCs, PCBs, and total petroleum hydrocarbons (TPH) – oil range organics, - diesel range organics, and - gasoline range organics. The results of this sampling will be presented in the AOI 36-1/36-2 system design documentation.

Also in March 2015, ten soil samples were collected from the AOI 05-1 area to delineate the extent of manganese and lead impacts in soils. Seven soil samples were submitted to the laboratory for manganese analysis and three were submitted for lead analysis. This data will be presented in a summary memo.

1.5 LNAPL Sample

In March 2015 an LNAPL sample was collected from the AOI 10-1/10-4 LNAPL Area to aid in characterize PCB concentrations. The LNAPL sample was submitted to the laboratory for analysis of PCBs. This data will be presented in a summary memo.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for January, February, and March that document the work performed this quarter. Please note that minor edits have been made to the previously submitted January monthly report to reflect the updated 2015 task names and numbers.

3. Problems Encountered

No problems were encountered.

4. Project Schedule – Near-Term Milestone Activities Anticipated During the Next Quarter

A projected field work schedule for the second and third quarters of 2015 is included in Attachment 4.

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

Task 6 Maintain Booms on Outfalls

- Continue to perform inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary.
- Continue to perform inspections of Oil Interceptor #2.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Continue to participate in regulatory agency calls.
- Prepare Quarterly Report for submittal to EPA.

Task 17 Compliance

- Continue quarterly P-trap inspections.
- Continue Outfall 003A weekly sample collection.
- Continue semi-annual SWPPP Inspection

Task 19 Remedy Design, Implementation, and OM&M

- Continue OM&M phase of Outfall 002 passive recovery trench.
- Begin monitoring of Outfall 004/013 re-route.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Continue additional investigation of LNAPL areas and impacts.
- Evaluate Site data to aid in selecting methods and locations for additional LNAPL pilot testing.
- Complete additional transmissivity testing at select LNAPL plumes located in the Northend of the Site.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Complete evaluation of AOI 36-1/36-2 pilot test data and prepare basis of design document.
- Complete proposed vapor intrusion investigation.

Task 6 Maintain Booms on Outfalls

- Perform maintenance event of Oil Interceptor #2. Dispose of waste as necessary.

Task 7 Enhanced Groundwater Monitoring

- Evaluate recently collected 1,4-dioxane data and determine next steps.
- Evaluate the 2014 Annual Groundwater Monitoring Data and prepare sampling plan for 2015 Annual Monitoring Event.

Task 8 NPDES Plus Monitoring

- Perform groundwater data evaluation and monitoring well installation at the Former Factory 84 Area to determine the source of metal impacts and whether the impacts are reaching the Flint River.

Task 18 Address Soil Impacts

- Complete AOI 40-A Soil Remedy Work Plan and begin remedy implementation upon EPA approval.
- Complete evaluation of delineation data for soil impacts and draft remedy recommendations and/or work plans.

Task 19 Remedy Design, Implementation, and OM&M

- Complete re-route of Outfall 004 and 013 storm sewer.
- Continue investigation of options to address infiltration at Outfall 003.
- Continue investigation and data evaluation of AOI 83/84-5 LNAPL Area and develop recommendations for potential remedies.
- Begin design of AOI 36-1/36-2 system.

5. Estimated Percent Complete

Task 1 Outfall 003/004 Oil Removal Systems

- Outfall 003/004 Oil removal System OM&M – Ongoing

Task 2 LNAPL Investigation

- LNAPL LIF Investigations – 100%
- Southend Natural Source Zone Depletion Study – 100%
- Southend Transmissivity Testing – 100%
- Northend Natural Source Zone Depletion Study – 100%
- Northend Transmissivity Testing – 75%
- Additional LNAPL Investigation – 85%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 100%
- LNAPL Pilot Scale Testing – 40%

Task 7 Enhanced Groundwater Monitoring

- Groundwater Monitoring – Ongoing

Task 8 NPDES PLUS Monitoring

- NPDES PLUS Monthly Monitoring – 100%
- NPMP Investigations – 5%

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- RFI Phase I Report - 100%
- RFI Phase II Report - 100%
- Human Health Exposure Control EI Report - 100%
- CA 750 Report - 100%
- Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%
- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%

- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

Task 17 Compliance

- Outfall 003A Weekly Sampling – Ongoing
- SWPPP Inspections , Reporting and Plan Review – Ongoing
- Yearly Trend Monitoring Report - Ongoing
- Yearly PCB Minimization Plan Report - Ongoing

Task 18 Address Soil Impacts

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 90%
- Lead Soil Removal – 100%
- Northern Parcel Investigation – 100%
- Northern Parcel Soil Removal – 100%

Task 19 Remedy Design, Implementation and OM&M

Remedy Design

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 60%
- Outfall 004 Re-route into Outfall 013 Evaluation - 100%
- Outfall 005 Storm Sewer Evaluation – 100%
- AOI 09-B System Design, Permitting, and Construction – 100%
- AOI 36-1/36-2 System Design Permitting and Construction – 0%

Remedy Implementation

- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 0%
- Outfall 004 Final Measure Implementation – 50%
- Outfall 005 Final Measure Implementation – 90%
- Outfall 006 Final Measure Implementation – 90%
- Outfall 007 Final Measure Implementation – 100%

- Outfall 009 Final Measure Implementation – 100%
- Outfall 010 Final Measure Implementation – 100%
- Northend RCRA WMU Closures – 90%
- Southend RCRA WMU Closures – 90%
- UST Issue Resolution – 100%
- Restrictive Covenants – 50%
- Monitoring Well Abandonments – 5%

Remedy OM&M

- AOI 09-B LNAPL Recovery OM&M – Ongoing

6. Budget Status

- 2015 Budget – The 2015 Budget Request was approved by the EPA on December 16, 2014.

If you have any questions, please contact me.

Sincerely,
ARCADIS



Micki M. Maki
Certified Project Manager

Copies:

Peter Quackenbush, Michigan Department of Environmental Quality, (via email)
William Yocum, Michigan Department of Environmental Quality (via email)
Flint Public Library
Grant Trigger, RACER Trust (via email)
Dave Favero, RACER Trust (via email)

Attachments:

Attachment 1 – January 2015 Project Update - RACER Buick City Site

Attachment 2 – February 2015 Project Update - RACER Buick City Site

Attachment 3 – March 2015 Project Update - RACER Buick City Site

Attachment 4 – RACER Buick City Field Schedule –2nd and 3rd Quarter 2015



Attachment 1

January 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki M. Maki

Date:
March 12, 2015
Revised April 9, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
January 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this January 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from January 1, 2015 through January 31, 2015. Please note that this monthly report has been revised to reflect the 2015 Task Numbers and Task Names.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI) investigation.
- Coordinated SCMI investigation waste documentation, container inspections, and disposal.
- Performed well development on recently constructed and completed SCMI wells.

Task 3 – LNAPL Recovery Bench and Field-Scale Pilot Testing

- Coordinated vapor intrusion (VI) for sampling locations included in the SCMI work plan.

Task 7 - Enhanced Groundwater Monitoring

- Finalized draft 1,4-Dioxane Work Plan for RACER review.
- Prepared data tables and figures for annual groundwater monitoring report.

Task 8 - NPDES PLUS Monitoring

- Finalized and submitted notices regarding the Northern Parcel sale to American SpiralWeld, which includes the Outfall 001 storm sewer, to the City of Flint and MDEQ.
- Reviewed data and prepared cross sections for Factory 84 area in association with the metal investigation.

Task 19 – Remedy Design, Implementation, and OM&M

- Continued coordinating the Outfall 004 reroute activities.
- Continued evaluation of potential remedies for Outfall 003 reroute status.
- Prepared a traffic control plan for the surveying and sewer camera work associated with the Outfall 003 feasibility study.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 8 - NPDES PLUS Monitoring

- Completed the January monthly NPMP sampling event.

Task 19 – Remedy Design, Implementation, and OM&M

- Performed maintenance activities on the AOI-09B system.
- Generated and submitted the December monthly POTW report to the City of Flint and December monthly air report to MDEQ for the AOI-09B system.
- Completed the monthly 002 passive recovery trench inspection and gauging.



Attachment 2

February 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki M. Maki

Date:
March 26, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
February 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this February 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from February 1, 2015 through February 28, 2015. Please note that the monthly report has been updated to reflect the 2015 Task Numbers and Task Names.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI) investigation.
- Drafted text, tables and figures for SCMI Work Plan Addendum No. 1.
- Completed SCMI investigation waste documentation, container inspections, and waste disposal.
- Identified locations for survey and utility locate for SCMI activities.
- Coordinated completion of remaining field work from the SCMI Work Plan.

Task 3 - LNAPL Investigation

- Began coordination of AOI 36-1/36-2 Pilot Test.

Task 7 - Enhanced Groundwater Monitoring

- Continued finalizing draft 1,4-Dioxane Work Plan for RACER review.
- Drafted and finalized Notice of Migration Documents.

Task 8 - NPDES PLUS Monitoring

- Continued review of former Factory 84 groundwater data and preparation of cross sections of the former Factory 84 area to aid in data interpretation.
- Began drafting the Outfall 001 NPMP Data Summary memo.
- Drafted text and figures for additional delineation scope of work for groundwater impacts at the former Factory 84 area to be included in SCMI Work Plan.

Task 19 – Remedy Design, Implementation and OM&M

- Finalized text, figures and tables for the AOI 09-B Status Memo.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted snow events, and following snow events to ensure booms were functioning properly and identify when maintenance events were necessary
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 8 - NPDES PLUS Monitoring

- Completed the February monthly NPMP sampling event.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Performed maintenance activities on the AOI 09-B system.
- Generated and submitted the January monthly POTW report to the City of Flint and January monthly air report to MDEQ for the AOI 09-B system.
- Completed the monthly inspection and gauging of the 002 passive recovery trench.



Attachment 3

March 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki M. Maki

Date:
April 13, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
March 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this March 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from March 1, 2015 through March 31, 2015.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI).
- Installed soil borings and monitoring wells at area of interest (AOI) 36-1/36-2 and AOI 05-1 as part of SCMI.
- Completed SCMI investigation waste documentation, container inspections, and disposal.

Task 3 – LNAPL Recovery Bench and Field-Scale Pilot Testing

- Installed and sampled soil vapor monitoring points to evaluate potential impacts associated with the AOI 83/84-5 light non-aqueous phase liquid (LNAPL) Area.

- Developed detailed scope of work for the vapor intrusion investigation to be completed at locations identified in the Vapor Intrusion Evaluation Memo.
- Installed and developed pilot test extraction well and three monitoring wells for AOI-36-1/36-2 pilot test.
- Performed slug testing on pilot test extraction and monitoring wells to determine necessary pumping rates to achieve dewatering during pump test.
- Collected groundwater samples to characterize waste for pilot test and completed waste profiling and container inspections.

Task 7 - Enhanced Groundwater Monitoring

- Completed re-development of approximately 25 monitoring wells and groundwater sampling of approximately 50 monitoring wells for the 1,4-Dioxane Investigation.
- Began evaluation of 2014 annual groundwater monitoring data and development of 2015 monitoring plan.

Task 8 - NPDES PLUS Monitoring

- Continued review of former Factory 84 groundwater data and preparation of cross sections of the former Factory 84 area to aid in data interpretation.
- Finalized the draft Outfall 001 NPMP Data Summary memo.
- Began preparing draft tables and figures for Outfall 006 NPMP Data Summary Memo

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Drafted Concrete Sampling Summary Memo

Task 19 – Remedy Design, Implementation and OM&M

- Finalized text, figures and tables for the AOI 09-B Status Memo.

- Began field activities re-routing the Outfall 004 storm sewer into Outfall 013 storm sewer.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted snow events, and following snow events to ensure booms were functioning properly and identify when maintenance events were necessary
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the February monthly POTW report to the City of Flint and February monthly air report to MDEQ for AOI 09-B system.
- Performed a test on AOI 09-B system blowers to determine source of oil leak.



Attachment 4

Field Schedule –2nd and 3rd
Quarter 2015



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis-us.com

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
Land and Chemicals Division
77 W. Jackson Blvd. DE-97
Chicago, IL 60604-3590

ENVIRONMENT

Subject:
Second Quarter 2015 Progress Report (No. 16)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Date:
July 15, 2015

Contact:
Christi Kiker

Dear Mr. Black:

Phone:
248.994.2271

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), ARCADIS is submitting this Second Quarter 2015 Progress Report (No. 16) in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent (Consent Order), Docket Number RCRA-05-2011-0024 for the Buick City Site located in Flint, Michigan (the Site), which was effective on September 29, 2011.

Email:
Christi.Kiker@arcadis-us.com

Please note that in accordance with General Motors Corporation's Administrative Order on Consent Number R8H-5-00-02 for the North American Operations [NAO] Flint Operations Site (also known as Buick City) Quarterly Progress Reports No.1 through 46 were submitted to the United States Environmental Protection Agency (EPA) documenting Site activities from January 1, 2000 through June 30, 2011.

Our ref:
B0064410.2015

This Second Quarter 2015 Progress Report (No. 16) covers the period of April 1, 2015 through June 30, 2015.

The following briefly summarizes the work performed and data collected, problems encountered, project schedule, and estimated percent complete for a list of activities.

1. Data Collected This Quarter

The samples collected as part of Site investigation or monitoring activities during this quarter are discussed below. This data will be presented to the EPA in the 2015 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

As required per Part 1, Section A 2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2015 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

1.2 Soil Samples

In April, May, and June, ARCADIS collected soil samples as part of the Supplemental Corrective Measures Investigation (SCMI) to delineate and characterize the impacts in soil. A total of 51 soil samples were collected from soil boring locations and submitted for laboratory analysis of PCBs.

1.3 LNAPL Samples

No LNAPL samples were collected during this time period.

1.4 Groundwater Samples

ARCADIS collected 4 samples as part of the annual groundwater sampling event and to characterize groundwater in Outfall 008 Drainage area. The groundwater samples were submitted for laboratory analysis of VOCs, SVOCs, and metals (totals and dissolved).

ARCADIS collected 14 samples to evaluate the presence of 1,4 dioxane at the site. The groundwater samples were submitted for laboratory analysis of SIMS analysis including 1,4 dioxane.

1.5 Vapor Intrusion Samples

11 soil gas samples were collected to evaluate vapor intrusion at the site. These samples were submitted for laboratory analysis of VOCs and/or methane.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for April, May, and June that document the work performed this quarter.

3. Problems Encountered

No problems were encountered.

4. Project Schedule – Near-Term Milestone Activities Anticipated During the Next Quarter

A projected field work schedule for the third quarter and fourth quarter of 2015 is included in Attachment 4.

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

Task 6 Maintain Booms on Outfalls

- Continue to perform inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary.
- Continue to perform inspections of Oil Interceptor #2.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Continue to participate in regulatory agency calls.
- Prepare Quarterly Report for submittal to EPA.

Task 17 Outfall 003A Weekly Sampling

- Continue Outfall 003A weekly sample collection.
- Continue quarterly P-trap inspections.
- Continue semi-annual SWPPP inspection

Task 19 Remedy Design, Implementation and OM&M

- Continue monitoring of the Outfall 004/013 reroute.
- Generate and submitted monthly POTW report to the City of Flint and monthly air report to MDEQ for the AOI-09B system.
- Continue OM&M phase of Outfall 002 passive recovery trench.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Complete additional SCMI investigation of LNAPL areas and impacts.
- Complete the transmissivity investigation and evaluation.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Develop and conduct vapor intrusion investigation activities.
- Finalize and submit the AOI 36 Basis of Design.

Task 7 Enhanced Groundwater Monitoring

- Coordinate and complete the 2015 annual groundwater sampling.
- Develop a work plan for additional 1,4-Dioxane investigations and implement field activities.

Task 8 NPDES PLUS Monitoring

- Complete the evaluation of the Factory 84 investigation.
- Complete the Outfall 013 dry weather flow sampling.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Meet with the EPA to discuss site conditions and review plans.

Task 18 Address Soil Impacts

- Complete the AOI 40 Impacted Soil Remedy.

Task 19 Remedy Design, Implementation and OM&M

- Complete reroute of Outfall 004 storm sewer into Outfall 013 storm sewer.
- Select the Outfall 003 infiltration elimination option and begin efforts.
- Develop work plan and implement PCB impacted soils at AOI 81-2.
- Begin evaluation of the AOI83/84-2 remedy options.
- Begin design of the downstream Outfall 004 infiltration elimination options.

5. Estimated Percent Complete

Task 1 Outfall 003/004 Oil Removal Systems

- Outfall 003/004 Oil removal System OM&M – Ongoing

Task 2 LNAPL Investigation

- LNAPL LIF Investigations – 100%
- Southend Natural Source Zone Depletion Study – 100%
- Southend Transmissivity Testing – 100%
- Northend Natural Source Zone Depletion Study – 90%
- Northend Transmissivity Testing – 75%
- Additional LNAPL Investigation – 80%

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- LNAPL Bench Scale Testing – 25%
- LNAPL Pilot Scale Testing – 66%

Task 7 Enhanced Groundwater Monitoring

- Groundwater Monitoring – Ongoing

Task 8 NPDES PLUS Monitoring

- NPDES PLUS Monitoring – Ongoing

Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues

- Northend RCRA WMU Closures – 90%
- Southend RCRA WMU Closures – 90%
- Northend Restrictive Covenant – 0%
- Southend Restrictive Covenant – 90%
- Monitoring Well Abandonments – 5%
- UST Issue Resolution – 100%

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 100%

Task 11 Lead Soil Removal

- Lead Soil Removal – 100%
- Northern Parcel Investigation – 100%
- Northern Parcel Soil Removal – 100%

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- RFI Phase I Report - 100%
- RFI Phase II Report - 100%
- Human Health Exposure Control EI Report - 100%
- CA 750 Report - 100%
- Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%
- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 60%
- Outfall 004 Re-route into Outfall 013 Evaluation - 90%
- Outfall 005 Storm Sewer Evaluation – 100%
- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 30%
- Outfall 005 Final Measure Implementation – 90%
- Outfall 007 Final Measure Implementation – 100%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 7%
- AOI 09-B System Design, Permitting, and Construction – 100%

Task 15 LNAPL Recovery OM&M Followed by Secondary LNAPL Remediation

- LNAPL Recovery OM&M – 40%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2015 Budget – The 2015 Budget Request was approved by the EPA on December 12, 2014.

If you have any questions, please contact me.

Sincerely,
ARCADIS



Christi Kiker
Project Manager

Copies:

Peter Quackenbush, Michigan Department of Environmental Quality, (via email)
William Yocum, Michigan Department of Environmental Quality (via email)
Flint Public Library
Grant Trigger, RACER Trust (via email)
Dave Favero, RACER Trust (via email)

Attachments:

Attachment 1 – April 2015 Project Update - RACER Buick City Site
Attachment 2 – May 2015 Project Update - RACER Buick City Site
Attachment 3 – June 2015 Project Update - RACER Buick City Site
Attachment 4 – RACER Buick City Field Schedule – 3rd and 4th Quarter 2015



Attachment 1

April 2014 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki M. Maki

Date:
May 15, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
April 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this April 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from April 1, 2015 through April 30, 2015.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Continued review and analysis of analytical data and development of electronic boring logs associated with the Supplemental Corrective Measures Investigation (SCMI) investigation.
- Drafted text, tables and figures for SCMI Work Plan Addendum No. 1.
- Completed SCMI investigation waste documentation, container inspections, and disposal.
- Began preparation for well development and transmissivity testing.

Task 3 - LNAPL Recovery Bench and Field - Scale Pilot Testing

- Performed the AOI 36-1/36-2 Multi-Phase Extraction (MPE) Pilot Test.
- Began coordination of upcoming vapor intrusion (VI) work based on the scope of work identified within the Vapor Intrusion Evaluation Memo.

Task 7 - Enhanced Groundwater Monitoring

- Review data received from the groundwater sampling of approximately 50 monitoring wells for the 1,4-Dioxane Investigation.

Task 8 - NPDES PLUS Monitoring

- Finalized the draft Outfall 001 NPMP Data Summary memo.
- Finalized the draft Outfall 006 NPMP Data Summary memo.
- Began drafting the budget for upcoming Factory 84 investigations.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Finalized and submitted the quarterly EPA report.
- Developed 2015 Buick City Change Order #2.

Task 19 – Remedy Design, Implementation and OM&M

- Complete field activities re-routing the Outfall 004 storm sewer into Outfall 013 storm sewer.
- Began Outfall 004 reroute monitoring.
- Continued coordination of Outfall 003 flow monitoring for potential reroute.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted snow events, and following snow events to ensure booms were functioning properly and identify when maintenance events were necessary
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.
- Completed the semi-annual Storm Water Pollution Prevention Plan (SWPPP) site inspection.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the March monthly POTW report to the City of Flint and March monthly air report to MDEQ for the AOI 09-B system.



Attachment 2

May 2014 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Tony Maffeo

Date:
June 15, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
May 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this May 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from May 1, 2015 through May 31, 2015.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Continued drafting revisions for SCMI Work Plan Addendum No. 1.
- Completed survey work for AOIs as part of SCMI.
- Performed well development and gauging of select wells.
- Continued preparation for transmissivity testing and VI investigations as part of SCMI.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Performed follow up events to the AOI 36-1/36-2 Pilot Test.

- Continue coordination of upcoming VI work based on the scope of work identified within the Vapor Intrusion Evaluation Memo.
- Begin drafting the BOD for AOI-36 area based on the Pilot Test performed.
- Begin preparing cross sections and performing hydraulic analysis for the AOI-36 BOD.

Task 7 - Enhanced Groundwater Monitoring

- Begin development of Annual Groundwater Sampling Memo and planning for the 2015 groundwater event.
- Review data from groundwater sampling and plan for phase 2 for the 1,4-Dioxane Investigation.

Task 8 - NPDES PLUS Monitoring

- Begin drafting work plan memo for Outfall 13 storm sewer sampling.
- Finalized the draft Outfall 006 NPMP Data Summary memo and submitted to RACER for review.
- Continue preparation for upcoming Factory 84 investigations, well installation and sampling.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Revise and submit administrative proposal to RACER.
- Review, compiled and summarized surface soil PCB data from AOI 81-2 area for potential property transaction.
- Begin preparing text, tables and figures for the AOI 86-1 Soil Memo.
- Begin preparing WMU #7 Summary Memo.
- Begin preparing text and tables for the Factory 84 Groundwater Memo.
- Begin preparing text and tables for the AOI 3-1 Summary Memo.

- Begin preparing text, figures and tables for the AOI 10-1/10-4 & AOI 05-1/05-5 LNAPL/PCB Delineation Memo.
- Begin drafting the AOI 36-1 Memo.
- Begin drafting the figures, text and tables for the AOI 83/84-2 Memo.
- Continue preparing text, figures and tables for the AOI 81-2 Memo.
- Begin preparing text, figures and tables for the AOI 02-B Memo.

Task 17 – Outfall 003A Weekly Sampling

- Finalize Hazardous Waste User Charge Form to submit to MDEQ.
- Finalize 2014 Yearly Trend Wet Weather Report and 2014 Yearly PMP Report.

Task 18 – Select Surface Cover Inspection

- Begin preparing AOI 40 Select Soil Work Plan.

Task 19 – Remedy Design, Implementation and OM&M

- Prepare and review traffic control plan for upcoming storm sewer flow meter installation.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted snow events, and

following snow events to ensure booms were functioning properly and identify when maintenance events were necessary

- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generate April monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the April monthly POTW report to the City of Flint and April monthly air report to MDEQ for the AOI 09-B system.



Attachment 3

June 2014 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Tony Maffeo

Date:
July 15, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
June 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this June 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from June 1, 2015 through June 30, 2015.

Non-Routine OMM Work

Task 2 - LNAPL Investigation

- Completed soil borings, well installation and sampling as part of SCMI Work Plan Addendum No. 1.
- Completed transmissivity testing and VI investigations as part of SCMI.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Performed SVMP installation and PCB delineation activities as part of VI investigations.
- Performed follow up events to the AOI 36-1/36-2 Pilot Test.
- Continued development of the Basis of Design/Summary for AOI-36 area based on the Pilot Test performed including the preparation of cross sections and hydraulic analysis.

Task 7 - Enhanced Groundwater Monitoring

- Continued development of the 2014 Annual Groundwater Sampling Memo and planning for the 2015 groundwater event.
- Continued preparation and planning of the phase 2 for the 1,4-Dioxane Investigation.

Task 8 - NPDES PLUS Monitoring

- Finalized and submitted the work plan memo for Outfall 13 storm sewer sampling to the EPA.
- Finalized and submitted the Outfall 001 and 006 data evaluation and request for removal from the NPDES Monitoring program memos to the EPA.
- Completed the Factory 84 investigations, including well installation and sampling.

Task 17 – Outfall 003A Weekly Sampling

- Identified that the Lagoon near James P Cole had substantially filled with water since the previous year. Discussions were held with the City of Flint to determine if any water line issues were present in the area.
- Began the annual review/update of the Storm Water Pollution Prevention Plan.

Task 18 – Select Surface Cover Inspection

- Submitted the draft AOI 40 Select Soil Work Plan to RACER for review.

Task 19 – Remedy Design, Implementation and OM&M

- Began development of the AOI-81-2 excavation work plan.
- Continued modeling and reroute analysis for evaluation of the Outfall 003 reroute option.
- Performed the 002 trench inspection.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted snow events, and following snow events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generate May monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the May monthly POTW report to the City of Flint and May monthly air report to MDEQ for the AOI 09-B system.



Attachment 4

3rd and 4th Quarter 2015 Field
Schedule

ID	Task Name	Duration	Start	Finish	Predecessor	July	3rd Quarter August	September	October	4th Quarter November	December
2	Task 1 - Outfall 003/004 Oil Removal Systems	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
3	Outfall 003/004 System OMM	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
4	Outfall 003/004 System Maintenance Event	10 days	Mon 9/7/15	Fri 9/18/15		[Gantt bar spanning Sept 7-18, 2015]					
6	Task 2 - Supplemental Investigations	65 days	Wed 7/1/15	Tue 9/29/15		[Gantt bar spanning July to Sept 29, 2015]					
7	SCM Investigation Field Work	25 days	Wed 7/1/15	Tue 8/4/15		[Gantt bar spanning July 1-4, 2015]					
8	Evaluate Data and Determine Next Steps	20 days	Wed 8/5/15	Tue 9/1/15	7	[Gantt bar spanning Aug 5-1, 2015]					
9	Prepare SCM Summary Memo	20 days	Wed 9/2/15	Tue 9/29/15	8	[Gantt bar spanning Sept 2-29, 2015]					
11	Vapor Intrusion Investigation	12 days	Wed 7/1/15	Thu 7/16/15		[Gantt bar spanning July 1-16, 2015]					
12	Evaluate Data and Determine Next Steps	20 days	Fri 7/17/15	Thu 8/13/15	11	[Gantt bar spanning July 17-13, 2015]					
14	Prepare Transmissivity Summary Memo	20 days	Wed 7/1/15	Tue 7/28/15		[Gantt bar spanning July 1-28, 2015]					
16	Task 3 - LNAPL Recovery Bench and Field Scale Pilot Testing	37 days?	Wed 7/1/15	Thu 8/20/15		[Gantt bar spanning July to Aug 20, 2015]					
17	AOI 36-1/36-2 Pilot Test Summary/Basis of Design (BOD) Report	17 days	Wed 7/1/15	Thu 7/23/15		[Gantt bar spanning July 1-23, 2015]					
18	EPA Approval of AOI 36-1 BOD Recommendations	20 days	Fri 7/24/15	Thu 8/20/15	17	[Gantt bar spanning July 24-Aug 20, 2015]					
20	Task 6 - Maintain Booms on Outfalls	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
21	Standard OMM	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
22	Oil Interceptor #2 Maintenance	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
24	Task 7 - Annual Groundwater Monitoring Event	77 days	Wed 7/1/15	Thu 10/15/15		[Gantt bar spanning July to Oct 15, 2015]					
25	Complete Annual Groundwater Plan development	17 days	Wed 7/1/15	Thu 7/23/15		[Gantt bar spanning July 1-23, 2015]					
26	EPA review and Approval Process	30 days	Fri 7/24/15	Thu 9/3/15	25	[Gantt bar spanning July 24-Sept 3, 2015]					
27	Coordinate and conduct event	30 days	Fri 9/4/15	Thu 10/15/15	26	[Gantt bar spanning Sept 4-Oct 15, 2015]					
29	Complete 1.4 Dioxane Plan development	20 days	Wed 7/1/15	Tue 7/28/15		[Gantt bar spanning July 1-28, 2015]					
30	EPA review and Approval Process	30 days	Fri 7/24/15	Thu 9/3/15	29	[Gantt bar spanning July 24-Sept 3, 2015]					
31	Coordinate and conduct event	30 days	Fri 9/4/15	Thu 10/15/15	30	[Gantt bar spanning Sept 4-Oct 15, 2015]					
33	Task 8 - NPDES Plus Monitoring	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
34	Address Metal Impact in Site Storm Sewers	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
36	Factory 84 Data Evaluation and Determine Next Steps	20 days	Mon 7/27/15	Fri 8/21/15		[Gantt bar spanning July 27-Aug 21, 2015]					
38	Outfall 013 Dry Weather Flow Sampling Events	20 days	Mon 8/3/15	Fri 8/28/15		[Gantt bar spanning Aug 3-28, 2015]					
39	Outfall 013 Dry Weather Flow Data Evaluation and Next St	20 days	Mon 8/31/15	Fri 9/25/15	38	[Gantt bar spanning Aug 31-Sept 25, 2015]					
41	Task 12 - Agency Coordination/Negotiation, Reporting, Project Management	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
42	Agency Meetings and Negotiations	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
43	Project Management and Administration	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
44	Reporting	89 days	Mon 8/3/15	Thu 12/3/15		[Gantt bar spanning Aug 3-Dec 3, 2015]					
45	Final Decision issued by EPA	1 day	Mon 8/3/15	Mon 8/3/15		[Gantt bar spanning Aug 3, 2015]					
46	OMI Work Plan	88 days	Tue 8/4/15	Thu 12/3/15	45	[Gantt bar spanning Aug 4-Dec 3, 2015]					
48	Task 17 - Compliance	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
49	Outfall 003A Weekly Sampling and eDMR's	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
50	SWPP annual review and inspections	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
51	Yearly Trend Monitoring and PMP	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
53	Task 18 - Addressing Soil Impacts	88 days	Wed 7/1/15	Fri 10/30/15		[Gantt bar spanning July to Oct 30, 2015]					
54	Surface Cover Installations	88 days	Wed 7/1/15	Fri 10/30/15		[Gantt bar spanning July to Oct 30, 2015]					
55	EPA Review and Approval Process	30 days	Wed 7/1/15	Tue 8/11/15		[Gantt bar spanning July 1-11, 2015]					
56	Remedy Implementation	30 days	Mon 9/21/15	Fri 10/30/15		[Gantt bar spanning Sept 21-Oct 30, 2015]					
58	Task 19 - Remedy Design, Implementation, and O&M	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
59	AOI 36-1/36-2 MPE System	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
60	Infrastructure Coordination	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
61	System Relocation and Installation Coordination	49 days	Mon 9/21/15	Thu 11/26/15		[Gantt bar spanning Sept 21-Nov 26, 2015]					
63	Outfall 003 Reroute	70 days	Wed 7/1/15	Tue 10/6/15		[Gantt bar spanning July to Oct 6, 2015]					
64	Outfall 003 Reroute Evaluation	19 days	Wed 7/1/15	Mon 7/27/15		[Gantt bar spanning July 1-27, 2015]					
65	Review Data and Reroute options with EPA	1 day	Tue 7/28/15	Tue 7/28/15	64	[Gantt bar spanning July 28, 2015]					
66	Outfall 003 Reroute Alignment Investigation	30 days	Wed 7/29/15	Tue 9/8/15	65	[Gantt bar spanning July 29-Sept 8, 2015]					
67	Review Data and Determine Next Steps	20 days	Wed 9/9/15	Tue 10/6/15	66	[Gantt bar spanning Sept 9-Oct 6, 2015]					
69	Outfall 004 Storm Sewer Reroute Monitoring	20 days	Wed 7/1/15	Tue 7/28/15		[Gantt bar spanning July 1-28, 2015]					
71	Outfall 002 Passive Recovery Trench O&M	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
72	Remedy Design and Implementation	132 days	Wed 7/1/15	Thu 12/31/15		[Gantt bar spanning July to Dec 2015]					
74	Restrictive Covenants	100 days	Wed 7/1/15	Tue 11/17/15		[Gantt bar spanning July to Nov 17, 2015]					
77	AOI 09-8 MPE System	20 days	Wed 7/1/15	Tue 7/28/15		[Gantt bar spanning July 1-28, 2015]					
78	EPA Review of AOI 09 Shut Down Memo	20 days	Wed 7/1/15	Tue 7/28/15		[Gantt bar spanning July 1-28, 2015]					
80	Task 20 - Outfall Exit	109 days	Sat 8/1/15	Thu 12/31/15		[Gantt bar spanning Aug 1-Dec 31, 2015]					
81	Outfall 005	109 days	Sat 8/1/15	Thu 12/31/15		[Gantt bar spanning Aug 1-Dec 31, 2015]					
82	Coord with MDEQ/City Of Flint	30 days	Sat 8/1/15	Thu 9/10/15		[Gantt bar spanning Aug 1-10, 2015]					
83	EPA Review and Approval Process	30 days	Fri 9/11/15	Thu 10/22/15	82	[Gantt bar spanning Sept 11-Oct 22, 2015]					
84	End Outfall 005 Inspections	50 days	Fri 10/23/15	Thu 12/31/15	83	[Gantt bar spanning Oct 23-Dec 31, 2015]					

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
Land and Chemicals Division
77 W. Jackson Blvd. DE-97
Chicago, IL 60604-3590

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis.com

Subject:

Third Quarter 2015 Progress Report (No. 17)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Reference:

B0064410.2015

Date:

10/14/2015

Dear Mr. Black:

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), Arcadis is submitting this Third Quarter 2015 Progress Report (No. 17) in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent (Consent Order), Docket Number RCRA-05-2011-0024 for the Buick City Site located in Flint, Michigan (the Site), which was effective on September 29, 2011.

Please note that in accordance with General Motors Corporation's Administrative Order on Consent Number R8H-5-00-02 for the North American Operations [NAO] Flint Operations Site (also known as Buick City) Quarterly Progress Reports No.1 through 46 were submitted to the United States Environmental Protection Agency (EPA) documenting Site activities from January 1, 2000 through June 30, 2011.

This Third Quarter 2015 Progress Report (No. 17) covers the period of July 1, 2015 through September 30, 2015.

The following briefly summarizes the work performed and data collected, problems encountered, project schedule, and estimated percent complete for a list of activities.

1. Data Collected This Quarter

The samples collected as part of Site investigation or monitoring activities during this quarter are discussed below. This data will be presented to the EPA in the 2015 Annual CMI Report, except as noted below.

1.1 Storm Sewer Water Samples

As required per Part 1, Section A 2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2015 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

1.2 Soil Samples

In July, August and September, Arcadis collected soil samples as part of the Supplemental Corrective Measures Investigation (SCMI) to delineate and characterize the impacts in soil. A total of 20 soil samples were collected from soil boring locations and submitted for laboratory analysis of PCBs.

1.3 LNAPL Samples

In July, August and September, Arcadis collected LNAPL samples as part of the Supplemental Corrective Measures Investigation (SCMI) to delineate and characterize PCB impacts in LNAPL. A total of three LNAPL samples were collected from temporary well locations and submitted for laboratory analysis of PCBs.

1.4 Groundwater Samples

Arcadis collected 53 samples as part of the annual groundwater sampling event and to characterize 1,4-dioxane in groundwater at the Site. The groundwater samples were submitted for laboratory analysis of VOCs, SVOCs, select metals and/or PCBs.

1.5 Vapor Intrusion Samples

One soil gas sample was collected to evaluate the vapor intrusion pathway along the Site property boundary. The sample was submitted for laboratory analysis of methane.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for July, August, and September that document the work performed this quarter.

3. Problems Encountered

No problems were encountered.

4. Project Schedule – Near-Term Milestone Activities Anticipated During the Next Quarter

A projected field work schedule for the fourth quarter of 2015 and first quarter of 2016 is included in Attachment 4.

4.1 Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Continue OMM inspections of system.

Task 6 Maintain Booms on Outfalls

- Continue to perform inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary.
- Continue to perform inspections of Oil Interceptor #2.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Continue to participate in regulatory agency calls.

- Prepare Quarterly Report for submittal to EPA.

Task 17 Outfall 003A Weekly Sampling

- Continue Outfall 003A weekly sample collection.
- Continue quarterly P-trap inspections.
- Continue semi-annual SWPPP inspections.

Task 19 Remedy Design, Implementation and OM&M

- Generate and submitted monthly POTW report to the City of Flint and monthly air report to MDEQ for the AOI-09B system.
- Continue OM&M phase of Outfall 002 passive recovery trench.

4.2 Non-Routine Work

Task 2 LNAPL Investigation

- Complete additional SCMI investigation of LNAPL areas and impacts.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Develop vapor intrusion work plan and conduct investigation activities.
- Finalize and submit the AOI 36 Pilot Test Summary Report.

Task 7 Enhanced Groundwater Monitoring

- Review data from 2015 annual groundwater sampling event and begin preparation of report.
- Develop a work plan for additional 1,4-Dioxane investigations and implement field activities.

Task 8 NPDES PLUS Monitoring

- Complete the evaluation of the Factory 84 investigation.
- Complete the Outfall 013 dry weather flow sampling.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Draft 2016 Annual Budget.

Task 18 Address Soil Impacts

- Complete the AOI 81-2 Impacted Soil Remedy Work Plan.

Task 19 Remedy Design, Implementation and OM&M

- Complete the Outfall 003 infiltration elimination options memo.

- Continue evaluation of Outfall 003 remedy options.
- Begin design of the downstream Outfall 004 infiltration elimination options.
- Continue evaluation of the AOI 83/84-5 remedy options.

5. Estimated Percent Complete

- Task 1 Outfall 003/004 Oil Removal Systems*
- Outfall 003/004 Oil removal System OM&M – Ongoing
- Task 2 LNAPL Investigation*
- LNAPL LIF Investigations – 100%
 - Southend Natural Source Zone Depletion Study – 100%
 - Southend Transmissivity Testing – 100%
 - Northend Natural Source Zone Depletion Study – 90%
 - Northend Transmissivity Testing – 85%
 - Additional LNAPL Investigation – 80%
- Task 3 LNAPL Recovery Bench and Field-Scale Testing*
- LNAPL Bench Scale Testing – 25%
 - LNAPL Pilot Scale Testing – 66%
- Task 7 Enhanced Groundwater Monitoring*
- Groundwater Monitoring – Ongoing
- Task 8 NPDES PLUS Monitoring*
- NPDES PLUS Monitoring – Ongoing
- Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues*
- Northend RCRA WMU Closures – 90%
 - Southend RCRA WMU Closures – 90%
 - Northend Restrictive Covenant – 0%
 - Southend Restrictive Covenant – 90%
 - Monitoring Well Abandonments – 5%
 - UST Issue Resolution – 100%

Task 10 Maintain Select Surface Covers

- Maintain Select Surface Covers – Ongoing
- Installation of Additional Surface Cover – Southend – 80%

Task 11 *Lead Soil Removal*

- Lead Soil Removal – 100%
- Northern Parcel Investigation – 100%
- Northern Parcel Soil Removal – 100%

Task 12 *Agency Coordination/Negotiation, Reporting, Project Management*

- RFI Phase I Report - 100%
- RFI Phase II Report - 100%
- Human Health Exposure Control EI Report - 100%
- CA 750 Report - 100%
- Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%
- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

Task 13 *Outfall 002/005 Oil Minimization & Investigation*

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 60%
- Outfall 004 Re-route into Outfall 013 Evaluation - 90%
- Outfall 005 Storm Sewer Evaluation – 100%
- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 30%
- Outfall 005 Final Measure Implementation – 90%

- Outfall 007 Final Measure Implementation – 100%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 7%
- AOI 09-B System Design, Permitting, and Construction – 100%

Task 15 LNAPL Recovery OM&M Followed by Secondary LNAPL Remediation

- LNAPL Recovery OM&M – 40%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2015 Budget – The 2015 Budget Request was approved by the EPA on December 12, 2014.
- 2015 Budget Modification #1 – The 2015 Budget Modification #1 was approved by the EPA on September 8, 2015.

If you have any questions, please contact me.

Sincerely,
Arcadis



Christi Kiker
Project Manager

Copies:

Peter Quackenbush, Michigan Department of Environmental Quality, (via email)
William Yocum, Michigan Department of Environmental Quality (via email)
Flint Public Library
Grant Trigger, RACER Trust (via email)
Dave Favero, RACER Trust (via email)

Attachments:

Attachment 1 – July 2015 Project Update - RACER Buick City Site

Attachment 2 – August 2015 Project Update - RACER Buick City Site

Attachment 3 – September 2015 Project Update - RACER Buick City Site

Attachment 4 – RACER Buick City Field Schedule –4th Quarter 2015 and 1st Quarter 2016.

Attachment 1

July 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki Maki

Date:
August 19, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
July 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this July 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from July 1, 2015 through July 31, 2015.

Non-Routine Work

Task 2 - LNAPL Investigation

- Developed electronic boring logs as part of SCMI Work Plan Addendum No. 1.
- Drafted a memo summarizing the transmissivity testing activities completed at the site.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Completed the Basis of Design/Summary Report for the pilot test completed in association with area of interest (AOI)-36-1/36-2.

Task 7 - Enhanced Groundwater Monitoring

- Finalized the 2014 Annual Groundwater Report.
- Began development of the 2015 Annual Groundwater Sampling plan.

Task 17 – Compliance

- Continued the annual review/update of the Storm Water Pollution Prevention Plan.

Task 18 – Select Surface Cover Inspection

- Finalized and submitted the AOI 40-A Impacted Soil Remedy Work Plan to the USEPA.

Task 19 – Remedy Design, Implementation and OM&M

- Continued modeling and reroute analysis for evaluation of the Outfall 003 reroute option.
- Continued to develop the Outfall 003 infiltration elimination options memo.
- Coordinated removal of meters installed for flow monitoring.
- Performed the 002 trench inspection.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.
- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.

- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Prepared for and attended meeting with EPA.
- Generated June monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Began drafting AOI 81-2 Interim Measure Work Plan.
- Generated and submitted the May monthly POTW report to the City of Flint and June monthly air report to MDEQ for the AOI 09-B system.

Attachment 2

August 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki Maki

Date:
October 8, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
August 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this August 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from August 1, 2015 through August 31, 2015.

Non-Routine Work

Task 2 - LNAPL Investigation

- Reviewed data collected during SMCI Work Plan Addendum No.1 investigation.
- Continued drafting transmissivity data evaluation and summary memo for the recent transmissivity testing activities completed at the site.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Drafted response to EPA comments on vapor intrusion (VI) work plan..
- Prepared Factory 36 LNAPL summary for in-depth evaluation of VI issues.
- Reviewed the Basis of Design/Summary Report for the pilot test completed in association with area of interest (AOI)-36-1/36-2.

Task 7 – Annual Groundwater Monitoring Event

- Completed 2014 Annual Groundwater Monitoring Report and submitted to RACER and the EPA.

Task 8 - NPDES Plus Monitoring

- Generated boring and well construction logs and database management as part of metals investigation.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Began drafting 2016 annual budget plan.
- Drafted 2015 Change Order No. 3 and submitted to RACER.
- Began drafting 2015 Change Order No.4 Budget Modification.

Task 18 – Select Surface Cover Inspection

- Drafted the AOI 81-2 Impacted Soil Remedy Work Plan to the EPA.

Task 19 – Remedy Design, Implementation and OM&M

- Continued to develop the Outfall 003 infiltration elimination options evaluation memo.
- Continued evaluation of Outfall 003 system potential re-route.
- Began drafting feasibility study for remedy options for the AOI 83/84-5 area.
- Began drafting the 004 reroute summary memo.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.

- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated July monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.
- Performed annual review of the Storm Water Pollution Prevention Plan (SWPPP).

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the July monthly POTW report to the City of Flint and June monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 3

September 2015 Project

Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki Maki

Date:
October 8, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
September 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this September 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from September 1, 2015 through September 30, 2015.

Non-Routine Work

Task 2 - LNAPL Investigation

- Completed LNAPL transmissivity testing on MW-83/84-15R at the Site.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Began draft figures for vapor intrusion (VI) delineation work plan for the Factory 36 Area.
- Review the Basis of Design/Summary Report for the pilot test completed in association with area of interest (AOI)-36-1/36-2.

Task 7 – Annual Groundwater Monitoring Event

- Coordinated and conducted the 2015 annual groundwater monitoring event.

Task 8 - NPDES Plus Monitoring

- Coordinated the Outfall 013 and Factory 84 sampling events.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Continued 2016 annual budget planning.
- Continued drafting Change Order No.4 Budget Modification and submitted to RACER.

Task 19 – Remedy Design, Implementation and OM&M

- Began coordinating design of Outfall 004 storm sewer down gradient remedy.
- Continued drafting feasibility study summary table for AOI 83/84-5 LNAPL Area remediation options.
- Reviewed results of Outfall 003 re-route flow study and began evaluation of additional remedy options.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.
- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.

- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated August monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the August monthly POTW report to the City of Flint and August monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 4

RACER Trust Buick City

Field Schedule 4th Quarter

2015 and 1st Quarter 2016

ID	Task Name	Duration	Start	Finish	Preced	October	4th Quarter November	December	January	1st Quarter February	March
1											
2	Task 1 - Outfall 003/004 Oil Removal Systems	131 days	Thu 10/1/15	Thu 3/31/16		[Task 1 Summary Bar]					
3	Outfall 003/004 System OMM	131 days	Thu 10/1/15	Thu 3/31/16		[Task 1 Summary Bar]					
4	Outfall 003/004 System Maintenance Event	10 days	Mon 10/26/15	Fri 11/6/15		[Task 1 Summary Bar]					
5											
6	Task 2 - Supplemental Investigations	62 days	Thu 10/1/15	Fri 12/25/15		[Task 2 Summary Bar]					
7	SCMI Investigation Field Work	25 days	Mon 10/26/15	Fri 11/27/15		[Task 2 Summary Bar]					
8	Evaluate Data and Determine Next Steps	20 days	Mon 11/30/15	Fri 12/25/15	7	[Task 2 Summary Bar]					
9	Prepare SCMI Summary Memo	20 days	Mon 12/28/15	Fri 1/22/16	8	[Task 2 Summary Bar]					
10											
11	Vapor Intrusion Investigation	12 days	Thu 10/15/15	Fri 10/30/15		[Task 2 Summary Bar]					
12	Evaluate Data and Determine Next Steps	20 days	Mon 11/2/15	Fri 11/27/15	11	[Task 2 Summary Bar]					
13											
14	Prepare Transmissivity Summary Memo	20 days	Thu 10/1/15	Wed 10/28/15		[Task 2 Summary Bar]					
15											
16	Task 3 - LNAPL Recovery Bench and Field Scale Pilot Testing	57 days?	Thu 10/1/15	Fri 12/18/15		[Task 3 Summary Bar]					
17	AOI 36-1/36-2 Subsurface soil gas sampling Work Plan Development	17 days	Thu 10/1/15	Fri 10/23/15		[Task 3 Summary Bar]					
18	EPA Approval of AOI 36-1 Subsurface Soil Gas Sampling Work Plan	20 days	Mon 10/26/15	Fri 11/20/15	17	[Task 3 Summary Bar]					
19	AOI 36-1 Subsurface Soil Gas Sampling Investigation	20 days	Mon 11/23/15	Fri 12/18/15	18	[Task 3 Summary Bar]					
20											
21	Task 6 - Maintain Booms on Outfalls	131 days	Thu 10/1/15	Thu 3/31/16		[Task 6 Summary Bar]					
22	Standard OMM	131 days	Thu 10/1/15	Thu 3/31/16		[Task 6 Summary Bar]					
23	Oil Interceptor #2 Maintenance	131 days	Thu 10/1/15	Thu 3/31/16		[Task 6 Summary Bar]					
24											
25	Task 7 - Annual Groundwater Monitoring Event	65 days	Thu 10/1/15	Wed 12/30/15		[Task 7 Summary Bar]					
26	Complete 1,4 Dioxane Plan development	20 days	Thu 10/1/15	Wed 10/28/15		[Task 7 Summary Bar]					
27	EPA review and Approval Process	20 days	Thu 10/29/15	Wed 11/25/15	26	[Task 7 Summary Bar]					
28	Coordinate and conduct event	25 days	Thu 11/26/15	Wed 12/30/15	27	[Task 7 Summary Bar]					
29											
30	Task 8 - NPDES Plus Monitoring	131 days	Thu 10/1/15	Thu 3/31/16		[Task 8 Summary Bar]					
31	Address Metal Impact in Site Storm Sewers	131 days	Thu 10/1/15	Thu 3/31/16		[Task 8 Summary Bar]					
32											
33	Factory 84 Data Evaluation and Determine Next Steps	20 days	Thu 10/1/15	Wed 10/28/15		[Task 8 Summary Bar]					
34											
35	Outfall 013 Dry Weather Flow Sampling Events	20 days	Thu 10/8/15	Wed 11/4/15		[Task 8 Summary Bar]					
36	Outfall 013 Dry Weather Flow Data Evaluation and Next Steps	20 days	Thu 11/5/15	Wed 12/2/15	35	[Task 8 Summary Bar]					
37											
38	Task 12 - Agency Coordination/Negotiation, Reporting, Project Management	131 days	Thu 10/1/15	Thu 3/31/16		[Task 12 Summary Bar]					
39	Agency Meetings and Negotiations	131 days	Thu 10/1/15	Thu 3/31/16		[Task 12 Summary Bar]					
40	Project Management and Administration	131 days	Thu 10/1/15	Thu 3/31/16		[Task 12 Summary Bar]					
41	Reporting	89 days	Mon 11/2/15	Thu 3/3/16		[Task 12 Summary Bar]					
42	Final Decision Issued by EPA	1 day	Mon 11/2/15	Mon 11/2/15		[Task 12 Summary Bar]					
43	CMI Work Plan	88 days	Tue 11/3/15	Thu 3/3/16	42	[Task 12 Summary Bar]					
44											
45	Task 17 - Compliance	131 days	Thu 10/1/15	Thu 3/31/16		[Task 17 Summary Bar]					
46	Outfall 003A Weekly Sampling and eDMR's	131 days	Thu 10/1/15	Thu 3/31/16		[Task 17 Summary Bar]					
47	SWPP annual review and Inspections	131 days	Thu 10/1/15	Thu 3/31/16		[Task 17 Summary Bar]					
48	Yearly Trend Monitoring and PMP	131 days	Thu 10/1/15	Thu 3/31/16		[Task 17 Summary Bar]					
49											
50	Task 18 - Addressing Soil Impacts	30 days	Thu 10/1/15	Wed 11/11/15		[Task 18 Summary Bar]					
51	Surface Cover Installations	30 days	Thu 10/1/15	Wed 11/11/15		[Task 18 Summary Bar]					
52	EPA Review and Approval Process	30 days	Thu 10/1/15	Wed 11/11/15		[Task 18 Summary Bar]					
53											
54	Task 19 - Remedy Design, Implementation, and OM&M	131 days	Thu 10/1/15	Thu 3/31/16		[Task 19 Summary Bar]					
55	Outfall 003 Reroute	70 days	Thu 10/1/15	Wed 1/6/16		[Task 19 Summary Bar]					
56	Outfall 003 Reroute Evaluation	19 days	Thu 10/1/15	Tue 10/27/15		[Task 19 Summary Bar]					
57	Review Data and Reroute options with EPA	1 day	Wed 10/28/15	Wed 10/28/15	56	[Task 19 Summary Bar]					
58	Outfall 003 Reroute Alignment Investigation	30 days	Thu 10/29/15	Wed 12/9/15	57	[Task 19 Summary Bar]					
59	Review Data and Determine Next Steps	20 days	Thu 12/10/15	Wed 1/6/16	58	[Task 19 Summary Bar]					
60											
61	Outfall 002 Passive Recovery Trench OM&M	131 days	Thu 10/1/15	Thu 3/31/16		[Task 19 Summary Bar]					
62											
63	Remedy and Targeted Excavation Design	131 days	Thu 10/1/15	Thu 3/31/16		[Task 19 Summary Bar]					
64											
65	Restrictive Covenants	100 days	Mon 11/2/15	Fri 3/18/16		[Task 19 Summary Bar]					
66											
67	AOI 09-B MPE System	131 days	Thu 10/1/15	Thu 3/31/16		[Task 19 Summary Bar]					
68	Continue System Maintenance	131 days	Thu 10/1/15	Thu 3/31/16		[Task 19 Summary Bar]					
69											
70	Task 20 - Outfall Exit	109 days	Sun 11/1/15	Thu 3/31/16		[Task 20 Summary Bar]					
71	Outfall 005	109 days	Sun 11/1/15	Thu 3/31/16		[Task 20 Summary Bar]					
72	Coord with MDEQ/City Of Flint	30 days	Sun 11/1/15	Thu 12/10/15		[Task 20 Summary Bar]					
73	EPA Review and Approval Process	30 days	Fri 12/11/15	Thu 1/21/16	72	[Task 20 Summary Bar]					
74	End Outfall 005 Inspections	50 days	Fri 1/22/16	Thu 3/31/16	73	[Task 20 Summary Bar]					
75											
76	Outfall 002	44 days	Mon 2/1/16	Thu 3/31/16		[Task 20 Summary Bar]					
77	Coord with MDEQ/City Of Flint	30 days	Mon 2/1/16	Fri 3/11/16		[Task 20 Summary Bar]					
78	EPA Review and Approval Process	14 days	Mon 3/14/16	Thu 3/31/16	77	[Task 20 Summary Bar]					

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
Land and Chemicals Division
77 W. Jackson Blvd. DE-97
Chicago, IL 60604-3590

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis.com

Subject:

Fourth Quarter 2015 Progress Report (No. 18)
Revitalizing Auto Communities Environmental Response (RACER) Trust
Buick City Site, Flint, Michigan

Reference:

B0064410.2015

Date:

January 18, 2016

Dear Mr. Black:

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), Arcadis is submitting this Fourth Quarter 2015 Progress Report (No. 18) in accordance with Section VI (18b) of the RACER Trust's Administrative Order on Consent (Consent Order), Docket Number RCRA-05-2011-0024 for the Buick City Site located in Flint, Michigan (the Site), which was effective on September 29, 2011.

Please note that in accordance with General Motors Corporation's Administrative Order on Consent Number R8H-5-00-02 for the North American Operations [NAO] Flint Operations Site (also known as Buick City) Quarterly Progress Reports No.1 through 46 were submitted to the United States Environmental Protection Agency (EPA) documenting Site activities from January 1, 2000 through June 30, 2011.

This Fourth Quarter 2015 Progress Report (No. 18) covers the period of October 1, 2015 through December 31, 2015.

The following briefly summarizes the work performed and data collected, problems encountered, project schedule, and estimated percent complete for a list of activities.

1. Data Collected This Quarter

The samples collected as part of Site investigation or monitoring activities during this quarter are discussed below. This data will be presented to the EPA in the Corrective Measures Implementation Work Plan, except as noted below.

1.1 Storm Sewer Water Samples

In October, November, and December, ARCADIS conducted Outfall 013 sampling to characterize mercury impacts following the completion of the Outfall 004 reroute. A total of 13 samples were collected along from five manholes along the Outfall 013 storm sewer and submitted for laboratory analysis of Mercury. The samples were also submitted for analysis of total metals, PAL VOCs, TSS and/or cyanide.

As required per Part 1, Section A 2 in the current National Pollution Discharge Elimination System (NPDES) Permit No. MI0001597, weekly composite samples were collected from Monitoring Point 003A. This data will be included in the 2015 Yearly Pollutant Minimization Plan (PMP) for PCBs report, which will be submitted to the Michigan Department of Environmental Quality (MDEQ) as required in the NPDES permit.

1.2 Soil Samples

In December, Arcadis collected soil samples as part of the Supplemental Corrective Measures Investigation (SCMI) to delineate and characterize the impacts in soil. A total of 96 soil samples were collected from soil boring locations and submitted for laboratory analysis of PCBs.

1.3 LNAPL Samples

In December, Arcadis collected LNAPL samples as part of the SCMI to characterize PCB impacts in LNAPL. A total of 19 LNAPL samples were collected from temporary well locations and submitted for laboratory analysis of PCBs.

1.4 Groundwater Samples

In October, Arcadis collected 53 groundwater samples as part of the annual groundwater sampling event and to characterize 1,4-dioxane in groundwater at the Site. The groundwater samples were submitted for laboratory analysis of VOCs, SVOCs, select metals and/or PCBs.

In December, Arcadis collected 44 groundwater samples as part of a vertical aquifer profiling investigation to characterize groundwater quality along two transects located downgradient of the Factory 36 and Factory 10 areas of the Site.

1.5 Vapor Intrusion Samples

In November, Arcadis collected 36 soil gas samples as part evaluating the vapor intrusion concerns at the Site. The samples were submitted for laboratory analysis of VOCs and/or methane.

2. Work Performed This Quarter

Attachments 1, 2, and 3 present the monthly Site progress reports for October, November, and December that document the work performed this quarter.

3. Problems Encountered

No problems were encountered.

4. Project Schedule – Near-Term Milestone Activities Anticipated During the Next Quarter

A projected field work schedule for the first and second quarter of 2016 is included in Attachment 4.

4.1 Routine Work

Task 1 *Outfall 003/004 Oil Removal Systems*

- Continue OMM inspections of system.
- Continue inspection of the Leith Street retaining wall.

Task 6 Maintain Booms on Outfalls

- Continue to perform inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Dispose of waste as necessary.
- Continue to perform inspections of Oil Interceptor #2.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Continue to participate in regulatory agency calls.
- Prepare Quarterly Report for submittal to EPA.
- Generate Monthly Reports for submittal to EPA.

Task 17 Compliance

- Continue Outfall 003A weekly sample collection.
- Continue quarterly P-trap inspections.
- Continue semi-annual SWPPP inspections.

Task 19 Remedy Design, Implementation and OM&M

- Generate and submitted monthly POTW report to the City of Flint and monthly air report to MDEQ for the AOI-09B system.
- Continue OM&M phase of Outfall 002 passive recovery trench.

4.2 Non-Routine Work

Task 1 Outfall 003/004 Oil Removal Systems

- Began coordinating annual cleaning and maintenance for Outfall 003/004 System.
- Performed line jet cleaning of 003/004 system.

Task 2 LNAPL Investigation

- Completed additional SCMI investigation of LNAPL areas and impacts.

Task 3 LNAPL Recovery Bench and Field-Scale Testing

- Completed survey, installation and sampling for vapor intrusion (VI) investigation.

Task 6 Maintain Booms on Outfalls

- Completed a maintenance event of Oil Interceptor #2 including removal of wastes.

Task 7 Enhanced Groundwater Monitoring

- Performed hydraulic profiling tool (HPT) and vertical aquifer profile (VAP) sampling events at two transect locations to investigate exceedances of GSI criteria and the presence of 1, 4-Dioxane.
- Completed the 2015 annual groundwater sampling event and begin preparation of report.

Task 8 NPDES PLUS Monitoring

- Completed the evaluation of the Factory 84 investigation.
- Completed three sampling events along the Outfall 013 storm sewer to evaluate post re-route conditions.

Task 12 Agency Coordination/Negotiation, Reporting, Project Management

- Finalized 2016 Annual Budget with RACER and EPA approval.
- Submitted the Semi-Annual Environmental Status Report to RACER.

Task 19 Remedy Design, Implementation and OM&M

- Continued evaluation of Outfall 003 remedy options.
- Continued coordinating design of the downstream Outfall 004 infiltration elimination options.

5. Estimated Percent Complete

Task 1 Outfall 003/004 Oil Removal Systems

- Outfall 003/004 Oil removal System OM&M – Ongoing

Task 2 LNAPL Investigation

- LNAPL LIF Investigations – 100%
- Southend Natural Source Zone Depletion Study – 100%
- Southend Transmissivity Testing – 100%
- Northend Natural Source Zone Depletion Study – 90%
- Northend Transmissivity Testing – 85%
- Additional LNAPL Investigation – 80%

- Task 3 LNAPL Recovery Bench and Field-Scale Testing*
- LNAPL Bench Scale Testing – 25%
 - LNAPL Pilot Scale Testing – 66%
- Task 7 Enhanced Groundwater Monitoring*
- Groundwater Monitoring – Ongoing
- Task 8 NPDES PLUS Monitoring*
- NPDES PLUS Monitoring – Ongoing
- Task 9 RCRA Closures, Well Abandonment, Restrictive Covenants, Resolve UST Issues*
- Northend RCRA WMU Closures – 90%
 - Southend RCRA WMU Closures – 90%
 - Northend Restrictive Covenant – 0%
 - Southend Restrictive Covenant – 90%
 - Monitoring Well Abandonments – 5%
 - UST Issue Resolution – 100%
- Task 10 Maintain Select Surface Covers*
- Maintain Select Surface Covers – Ongoing
 - Installation of Additional Surface Cover – Southend – 80%
- Task 11 Lead Soil Removal*
- Lead Soil Removal – 100%
 - Northern Parcel Investigation – 100%
 - Northern Parcel Soil Removal – 100%
- Task 12 Agency Coordination/Negotiation, Reporting, Project Management*
- RFI Phase I Report - 100%
 - RFI Phase II Report - 100%
 - Human Health Exposure Control EI Report - 100%
 - CA 750 Report - 100%
 - Revised Corrective Measures Proposal (CMP), May 1, 2008 – 100%

- Revised CMP Addendum No. 1 – 100%
- Southend Corrective Measures Implementation (CMI) Work Plan – 100%
- Revised CMP Addendum No. 2 – Northend and Site-wide Groundwater - 100%
- Revised CMP Addendum No. 2-1 – Response to EPA Comments - 100%
- 2012 CMI Annual Report – 100%
- 2013 CMI Annual Report – 100%

Task 13 Outfall 002/005 Oil Minimization & Investigation

- Outfall 002 Storm Sewer Evaluation - 100%
- Outfall 003 Storm Sewer Evaluation – 60%
- Outfall 004 Re-route Phase I – Re-route Outfall 004 into Outfall 013 - 100%
- Outfall 004 Re-route Phase II – Bulkhead Installation – 5%
- Outfall 005 Storm Sewer Evaluation – 100%
- Outfall 002 Final Measure Implementation– 90%
- Outfall 003 Final Measure Implementation – 30%
- Outfall 005 Final Measure Implementation – 90%
- Outfall 007 Final Measure Implementation – 100%

Task 14 Address 15 Areas of Subsurface LNAPL

- Address 15 Areas of LNAPL – 7%
- AOI 09-B System Design, Permitting, and Construction – 100%

Task 15 LNAPL Recovery OM&M Followed by Secondary LNAPL Remediation

- LNAPL Recovery OM&M – 40%
- Secondary LNAPL Remediation – 0%

6. Budget Status

- 2015 Budget – The 2015 Budget Request was approved by the EPA on December 12, 2014.
- 2015 Budget Modification #1 – The 2015 Budget Modification #1 was approved by the EPA on September 8, 2015.

- 2015 Budget Modification #2 – The 2015 Budget Modification #2 was approved by the EPA on December 17, 2015.

If you have any questions, please contact me.

Sincerely,
Arcadis

Micki Maki
Project Manager

Copies:

Peter Quackenbush, Michigan Department of Environmental Quality, (via email)

William Yocum, Michigan Department of Environmental Quality (via email)

Flint Public Library

Grant Trigger, RACER Trust (via email)

Dave Favero, RACER Trust (via email)

Attachments:

Attachment 1 – October 2015 Project Update - RACER Buick City Site

Attachment 2 – November 2015 Project Update - RACER Buick City Site

Attachment 3 – December 2015 Project Update - RACER Buick City Site

Attachment 4 – RACER Buick City Field Schedule –1st Quarter 2016 and 2nd Quarter 2016.

Attachment 1

October 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki Maki

Date:
December 28, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
October 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this October 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from October 1, 2015 through October 31, 2015.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Began planning, coordination, and sampling for the annual 003/004 interceptor maintenance event.

Task 2 - Outfall 003/004 Oil Removal Systems

- Began planning for an upcoming additional SCMI investigation event.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Finalized draft Vapor intrusion (VI) work plan for Client review.
- Developed work plan document for VI sampling on CSX property.

- Began planning for an upcoming additional VI investigation event.

Task 7 – Annual Groundwater Monitoring Event

- Completed the 2015 annual groundwater monitoring event.
- Reviewed annual groundwater data and coordinating data validation.
- Planned the survey of proposed locations for GSI and 1,4-Dioxane investigation event.
- Continued development of the GSI and 1,4-Dioxane investigation work plan.

Task 8 - NPDES Plus Monitoring

- Completed the initial Outfall 013 storm sewer sampling event.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Attended a status update meeting with the EPA.
- Continued development of the 2016 annual budget.
- Continued drafting Change Order No.4 Budget Modification and submitted to RACER.

Task 17 – Compliance

- Continued reviewing and revising the SWPPP.
- Completed SWPPP Inspections.

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer down gradient remedy.
- Continued the evaluation of additional Outfall 003 remedy options.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.
- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated September monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the October monthly POTW report to the City of Flint and October monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 2

November 2015 Project Update



ARCADIS of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

MEMO

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

From:
Micki Maki

Date:
December 30, 2015

ARCADIS Project No.:
B0064410.2015.01202

Subject:
November 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this November 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from November 1, 2015 through November 30, 2015.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Performed a line jet cleaning of 003/004 system to improve flow.
- Continued waste disposal coordination for the Annual 003/004 maintenance event.

Task 2 - LNAPL Investigation

- Completed the survey of previously completed SCMI Investigation locations.
- Reviewed the results of the previous SCMI investigation.
- Continued development of the Transmissivity Memo.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Completed the survey, installation, and sampling for the vapor intrusion (VI) investigation.
- Began development of the VI Summary Memo.

Task 6 - Maintain Booms on Outfalls

- Completed a maintenance event of Oil Interceptor #2 including the removal of wastes.

Task 7 – Annual Groundwater Monitoring Event

- Reviewed the 2015 groundwater elevation data to assess presence of water table in relation to GSI investigation.
- Began evaluating annual groundwater sampling data to determine if notices of migration need to be completed.
- Began preparing data transmittal letters to City of Flint, Consumers Energy, CSX, and Howell Farms.
- Continued developing the GSI Investigation work plan and event preparation.

Task 8 - NPDES Plus Monitoring

- Completed the second Outfall 013 storm sewer sampling event.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Attended a status update meeting with the EPA.
- Finalized the 2016 annual budget.

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer down gradient remedy.
- Reviewed results of Outfall 003 re-route flow study and continued evaluation of additional remedy options.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.
- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.
- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated November monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the November monthly POTW report to the City of Flint and August monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 3

December 2015 Project Update

To:
Chris Black, USEPA

Copies:
Grant Trigger, RACER
Dave Favero, RACER
Christi Kiker, ARCADIS

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241

From:
Micki Maki

Date:
January 15, 2015

Arcadis Project No.:
B0064410.2015 01202

Subject:
December 2015 Project Update - RACER Buick City Site, Flint, Michigan

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, ARCADIS is submitting this December 2015 Project Update to provide a brief summary of work performed at the Buick City Site (the Site) from December 1, 2015 through December 31, 2015.

Non-Routine Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Coordinating annual cleaning efforts for Annual 003/004 maintenance event.

Task 2 - LNAPL Investigation

- Reviewed the results of the previous SCMI investigation and identified delineation sampling locations.
- Planned, coordinated and completed soil boring and soil sample collection at SCMI delineation Investigation locations.
- Completed the survey of the additional SCMI Investigation locations.
- Performed LNAPL sampling at select wells as part of SCMI Investigations.

Task 3 - LNAPL Recovery Bench and Field-Scale Pilot Testing

- Coordinated upload of vapor intrusion data into database.

Task 7 – Annual Groundwater Monitoring Event

- Completed Hydraulic Profiling Tool borings and vertical aquifer profile sampling along two transects located on east of the Site to investigate exceedances of GSI criteria and the presence of 1, 4-Dioxane.

Task 8 - NPDES Plus Monitoring

- Completed the third Outfall 013 storm sewer sampling event.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Submitted the Semi-Annual Environmental Status Report to the RACER.
- Received EPA approval of Budget Amendment #2 on December 17, 2015

Task 19 – Remedy Design, Implementation and OM&M

- Continued coordinating design of Outfall 004 storm sewer downgradient remedy.

Routine OMM Work

Task 1 - Outfall 003/004 Oil Removal Systems

- Continued OMM activities on the 003/004 system. Activities included inspection of the 003/004 interceptor, weekly gauging, and weekly sampling. Inspections are being performed once per week to ensure that the system is running properly and to determine if any system modifications are warranted to optimize system performance.
- Continued inspection of the Leith Street retaining wall to monitor for any movement.

Task 6 - Maintain Booms on Outfalls

- Completed inspections and maintenance (as necessary) of Outfalls 002, 003, 004, and 005. Inspections of the outfalls were performed once per week, prior to forecasted rain events, and following rain events to ensure booms were functioning properly and identify when maintenance events were necessary.

- Completed inspections at Oil Interceptor #2 once a week to ensure that the booms are in good order and identify when maintenance events are necessary.

Task 12 – Agency Coordination/Negotiation, Reporting and Project Management

- Generated December monthly EPA summary memo.

Task 17 – Outfall 003A Weekly Sampling

- Collected weekly NPDES permit samples from the Outfall 003A monitoring point.

Task 19 – Remedy Design, Implementation and OM&M

- Generated and submitted the December monthly POTW report to the City of Flint and December monthly air report to MDEQ for the AOI 09-B system.
- Performed the 002 trench inspection.

Attachment 4

RACER Trust Buick City

Field Schedule 1st Quarter

and 2nd Quarter 2016

ATTACHMENT 2

2015 Outfall 003 Dry and Wet Weather Storm Water Sampling Results



**2015 Outfall 003A Dry Weather Storm Water Sampling Data
2015 Yearly PMP Report**

RACER Trust
Buick City Site
Flint, Michigan

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 01/02/15	OUTFALL 003A 01/07/15	OUTFALL 003A 01/16/15	OUTFALL 003A 01/20/15	OUTFALL 003A 01/27/15	OUTFALL 003A 02/06/15	OUTFALL 003A 02/13/15	OUTFALL 003A 02/27/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 03/03/15	OUTFALL 003A 03/11/15	OUTFALL 003A 03/17/15	OUTFALL 003A 03/28/15	OUTFALL 003A 04/02/15	OUTFALL 003A 04/09/15	OUTFALL 003A 04/17/15	OUTFALL 003A 04/24/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 04/30/15	OUTFALL 003A 05/07/15	OUTFALL 003A 05/16/15	OUTFALL 003A 05/22/15	OUTFALL 003A 05/27/15	OUTFALL 003A 06/06/15	OUTFALL 003A 06/12/15	OUTFALL 003A 06/20/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

**2015 Outfall 003A Dry Weather Storm Water Sampling Data
2015 Yearly PMP Report**

RACER Trust
Buick City Site
Flint, Michigan

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 01/02/15	OUTFALL 003A 01/07/15	OUTFALL 003A 01/16/15	OUTFALL 003A 01/20/15	OUTFALL 003A 01/27/15	OUTFALL 003A 02/06/15	OUTFALL 003A 02/13/15	OUTFALL 003A 02/27/15
Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 06/25/15	OUTFALL 003A 06/30/15	OUTFALL 003A 07/10/15	OUTFALL 003A 07/17/15	OUTFALL 003A 07/24/15	OUTFALL 003A 07/30/15	OUTFALL 003A 08/07/15	OUTFALL 003A 08/13/15

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 08/20/15	OUTFALL 003A 08/25/15	OUTFALL 003A 09/03/15	OUTFALL 003A 09/09/15	OUTFALL 003A 09/17/15	OUTFALL 003A 09/25/15	OUTFALL 003A 10/02/15	OUTFALL 003A 10/09/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 10/14/15	OUTFALL 003A 10/24/15	OUTFALL 003A 10/27/15	OUTFALL 003A 11/05/15	OUTFALL 003A 11/13/15	OUTFALL 003A 11/20/15	OUTFALL 003A 11/25/15	OUTFALL 003A 12/04/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

PCB									
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

**2015 Outfall 003A Dry Weather Storm Water Sampling Data
2015 Yearly PMP Report**

**RACER Trust
Buick City Site
Flint, Michigan**

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 01/02/15	OUTFALL 003A 01/07/15	OUTFALL 003A 01/16/15	OUTFALL 003A 01/20/15	OUTFALL 003A 01/27/15	OUTFALL 003A 02/06/15	OUTFALL 003A 02/13/15	OUTFALL 003A 02/27/15
--	-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 12/11/15	OUTFALL 003A 12/18/15	OUTFALL 003A 12/22/15	OUTFALL 003A 12/29/15
PCB					
Aroclor-1016 (PCB-1016)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Total PCBs	ug/L	0.1 U	0.1 U	0.1 U	0.1 U

2015 Outfall 003A Wet Weather Storm Water Sampling Data
2015 Yearly PMP Report

RACER Trust
Buick City Site
Flint, Michigan

Location ID: Sample Depth(): Date Collected:	Units	OUTFALL 003A 05/27/15
PCB		
Aroclor-1016 (PCB-1016)	ug/L	0.1 U
Aroclor-1221 (PCB-1221)	ug/L	0.1 U
Aroclor-1232 (PCB-1232)	ug/L	0.1 U
Aroclor-1242 (PCB-1242)	ug/L	0.1 U
Aroclor-1248 (PCB-1248)	ug/L	0.1 U
Aroclor-1254 (PCB-1254)	ug/L	0.1 U
Aroclor-1260 (PCB-1260)	ug/L	0.1 U
Total PCBs	ug/L	0.1 U

ATTACHMENT 3

2015 Field Inspection Notes – Outfall 003/004 BaySaver Separation System



DATE	WEATHER		OUTFALL 003										SYSTEM COMPONENTS												OUTFALL 004							
	Temp (-F)	Conditions (rain, etc.)	MH 3-3		Obstructions (Y/N)	Quantity of Debris	MH 3-6		Cresting Weir (Y/N)	Pooling Oil (Y/N)	Bay Saver Primary MH				Bay Saver Storage MH				Oil Water Separator				MH 4-6			MH 4-5						
			Obstructions (Y/N)	Flow (Y/N)			Flow (Y/N)	To Water			To Bottom	Obstructions (Y/N)	Qty. of Debris	Flow (Y/N)	Depths		Obstructions (Y/N)	Flow (Y/N)	Type of debris	Depths		Obstructions (Y/N)	Depths		Visible Obstructions (Y/N)		Debris Quantity	Flow (Y/N)				
															To LNAPL	To Water				To LNAPL	To Water		To LNAPL	To Water					To LNAPL	To Water		
1/7/2015	7	snow	no	yes	no	none	yes	11.19	12.40	no	no	no	none	yes	NA	11.50	19.00	No	Yes	EO	NA	11.69	19.26	No	NA	10.01	No	None	Yes	7.24	9.15	No
1/15/2015	20	cloudy	no	yes	no	none	yes	11.17	12.40	no	no	no	none	yes	NA	11.47	19.91	No	Yes	EO	NA	11.71	19.3	No	NA	10.02	No	None	Yes	7.25	9.14	No
1/20/2015	27	snow	no	yes	no	none	yes	11.19	12.42	no	no	no	none	yes	NA	11.49	19.91	No	Yes	EO	NA	11.61	19.26	No	NA	10.01	No	None	Yes	7.21	9.17	No
1/27/2015	25	clear	no	yes	no	none	yes	11.15	12.40	no	no	no	none	yes	NA	11.47	19.92	No	Yes	EO	NA	11.59	19.27	No	NA	10.01	No	None	Yes	7.22	9.12	No
2/6/2015	20	cloudy	no	yes	no	none	yes	11.16	12.40	no	no	no	none	yes	NA	11.47	19.91	No	Yes	EO	12.49	12.55	NA	NA	10.01	No	None	Yes	7.22	9.12	No	
2/12/2015	10	cloudy	no	yes	no	none	yes	11.19	12.40	no	no	no	none	yes	NA	11.45	19.91	No	Yes	EO	12.51	NA	NA	NA	10.01	No	None	Yes	7.22	9.12	No	
2/18/2015	15	overcast	no	yes	no	none	yes	11.19	12.41	no	no	no	none	yes	NA	11.49	19.92	No	Yes	EO	12.48	NA	NA	NA	10.01	No	None	Yes	7.21	9.11	No	
2/26/2015	15	snow	no	yes	no	none	yes	11.15	12.40	no	no	no	none	yes	NA	11.49	19.92	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.2	9.13	No	
3/2/2015	30	snow	no	yes	no	none	yes	11.17	12.39	no	no	no	none	yes	NA	11.45	19.90	No	Yes	EO	12.48	NA	NA	NA	10.01	No	None	Yes	7.2	9.11	No	
3/9/2015	45	clear	no	yes	no	none	yes	11.19	12.41	no	no	no	none	yes	NA	11.45	19.90	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.21	9.11	No	
3/19/2015	45	cloudy	no	yes	no	none	yes	11.14	12.41	no	no	no	none	yes	NA	11.45	19.88	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.21	9.12	No	
3/24/2015	45	clear	no	yes	no	none	yes	11.15	12.40	no	no	no	none	yes	NA	11.45	19.89	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.21	9.12	No	
3/31/2015	38	overcast	no	yes	no	none	yes	11.12	12.40	no	no	no	none	yes	NA	11.45	19.89	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.22	9.13	No	
4/7/2015	45	overcast	no	yes	no	none	yes	11.15	12.40	no	no	no	none	yes	NA	11.45	19.88	No	Yes	EO	12.49	NA	NA	NA	10.01	No	None	Yes	7.21	9.11	No	
4/14/2015	50	cloudy	no	yes	no	none	yes	11.51	12.40	no	no	no	none	yes	NA	11.41	19.89	No	Yes	EO	12.47	NA	NA	NA	10.01	No	None	Yes	7.58	9.12	No	
4/20/2015	60	overcast	no	yes	no	none	yes	11.76	12.41	no	no	no	none	yes	NA	11.38	19.88	No	Yes	EO	12.49	NA	NA	NA	10.02	No	None	Yes	7.55	9.11	No	
4/27/2015	50	cloudy	no	yes	no	none	yes	11.74	12.40	no	no	no	none	yes	NA	11.22	19.86	No	Yes	EO	12.45	NA	NA	NA	10.01	No	None	Yes	7.57	9.12	No	
5/6/2015	80	overcast/rain	no	yes	no	none	yes	11.69	12.42	no	no	no	none	yes	NA	11.24	19.84	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Yes	7.46	9.1	No	
5/13/2015	70	overcast/rain	no	yes	no	none	yes	11.65	12.42	no	no	no	none	yes	NA	11.24	19.84	No	Yes	EO	12.47	NA	NA	NA	10	No	None	Yes	7.46	9.1	No	
5/18/2015	74	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.24	19.84	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.46	9.1	No	
5/26/2015	70	clear	no	yes	no	none	yes	11.68	12.42	no	no	no	none	yes	NA	11.24	19.84	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.45	9.1	No	
6/2/2015	70	clear	no	yes	no	none	yes	11.69	12.42	no	no	no	none	yes	NA	11.25	19.84	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.47	9.1	No	
6/8/2015	65	rain	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.23	19.83	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.46	9.1	No	
6/20/2015	70	overcast	no	yes	no	none	yes	11.68	12.42	no	no	no	none	yes	NA	11.24	19.84	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.46	9.1	No	
6/22/2015	80	rain	no	yes	no	none	yes	11.65	12.42	no	no	no	none	yes	NA	11.23	19.82	No	Yes	EO	12.36	NA	NA	NA	10	No	None	Appears to be reduced	7.46	9.1	No	
7/7/2015	70	rain	no	yes	no	none	yes	11.65	12.42	no	no	no	none	yes	NA	11.23	19.82	No	Yes	EO	12.34	NA	NA	NA	10	No	None	No	7.46	9.1	No	
7/14/2015	75	cloudy/rain	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	NA	10	No	None	No	7.47	9.1	No	
7/23/2015	85	clear	no	yes	no	none	yes	11.69	12.41	no	no	no	none	yes	NA	11.22	19.82	No	Yes	EO	12.35	NA	NA	NA	10.02	No	None	No	7.46	9.2	No	
7/27/2015	87	clear	no	yes	no	none	yes	11.68	12.41	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	NA	10.01	No	None	No	7.46	9.1	No	
8/3/2015	75	overcast	no	yes	no	none	yes	11.68	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	NA	10.01	No	None	No	7.46	9.1	No	
8/7/2015	75	rain	no	yes	no	none	yes	11.65	12.42	no	no	no	none	yes	NA	11.19	19.82	No	Yes	EO	12.34	NA	NA	NA	10	No	None	No	7.46	9.1	No	
8/11/2015	75	rain	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.82	No	Yes	EO	12.35	NA	NA	NA	10.01	No	None	No	7.47	9.1	No	

Note:
NA indicates data not applicable
EO indicates emulsified oil

DATE	WEATHER		OUTFALL 003										SYSTEM COMPONENTS												OUTFALL 004							
	Temp (°F)	Conditions (rain, etc.)	MH 3-3		Obstructions (Y/N)	Quantity of Debris	MH 3-6		Cresting Weir (Y/N)	Pooling Oil (Y/N)	Bay Saver Primary MH				Bay Saver Storage MH				Oil Water Separator				MH 4-6			MH 4-5 Flow (Y/N)						
			Obstructions (Y/N)	Flow (Y/N)			Flow (Y/N)	Depths			Obstructions (Y/N)	Qty. of Debris	Flow (Y/N)	Depths		Obstructions (Y/N)	Flow (Y/N)	Type of Debris	Depths		Obstructions (Y/N)	Depths		Visible Obstructions (Y/N)	Debris Quantity		Flow (Y/N)					
								To Water						To Bottom	To LNAPL				To Water	To Bottom		To LNAPL	To Water					To Bottom	To LNAPL	To Water		
8/18/2015	72	overcast	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
8/27/2015	65	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.46	9.1	No
8/31/2015	80	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.81	No	Yes	EO	12.34	NA	NA	No	NA	10.02	No	None	No	7.46	9.1	No
9/10/2015	75	overcast	no	yes	no	none	yes	11.66	12.40	no	no	no	none	yes	NA	11.22	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
9/18/2015	75	rain	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
9/22/2015	75	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.02	No	None	No	7.47	9.1	No
9/30/2015	62	cloudy	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
10/6/2015	60	overcast	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.36	NA	NA	No	NA	10.01	No	None	No	7.46	9.1	No
10/13/2015	60	overcast	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
10/22/2015	62	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.82	No	Yes	EO	12.36	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
10/29/2015	48	rain	no	yes	no	none	yes	11.65	12.42	no	no	no	none	yes	NA	11.19	19.82	No	Yes	EO	12.35	NA	NA	No	NA	9.99	No	None	No	7.47	9.1	No
11/4/2015	28	clear	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
11/13/2015	45	rain	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.20	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
11/20/2015	40	overcast	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10	No	None	No	7.47	9.1	No
11/24/2015	38	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10	No	None	No	7.47	9.1	No
12/4/2015	45	snow	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
12/11/2015	48	cloudy	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
12/15/2015	45	rain	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
12/21/2015	48	overcast	no	yes	no	none	yes	11.66	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.01	No	None	No	7.47	9.1	No
12/28/2015	30	rain/snow	no	yes	no	none	yes	11.67	12.42	no	no	no	none	yes	NA	11.21	19.82	No	Yes	EO	12.35	NA	NA	No	NA	10.02	No	None	No	7.47	9.1	No

Note:
NA indicates data not applicable
EO indicates emulsified oil