

Transmitted via Electronic Mail

Mr. Chris Black
U.S. Environmental Protection Agency – Region 5
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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



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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



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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

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Tel 248 994 2240
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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

