SUMITOMO RUBBER USA, LLC

DUNLOP FALKEN

Mr. Brian Sadowski
New York State Dept. of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2915

August 2, 2019

Revised Periodic Review Report and Institutional Controls Certification - Site No. 915018

Dear Mr. Sadowski,

Please find attached the revised Periodic Review Report (PRR) and Institutional and Engineering Controls (IC/EC) Certification Forms. The PRR and IC/EC Certification Forms were originally submitted on July 24, 2019 in accordance with the Site Management Plan (SMP) for the Dunlop Tire and Rubber Site (Site No. 915018). NYSDEC issued an email response on July 29, 2019 requesting corrections to the PRR. The corrected document is attached.

Please contact Joseph Hinkle if you have any questions or if you need any additional information.

Thank you,

Joseph Hinkle
Environmental, Health and Safety Manager
(716) 879-8546

Cc: Mr. Glenn May (NYSDEC)

PO Box 1109, Buffalo, NY 14240-1109
10 Sheridan Drive, Tonawanda, NY 14150
716-879-8200

August 2, 2019

SUMITOMO RUBBER USA, LLC
TONAWANDA, NEW YORK
LANDFILL CAP MANAGEMENT
SITE MANAGEMENT PERIODIC REVIEW REPORT (PRR)

I. Introduction

The former Goodyear Dunlop Tires North America facility (Facility), now owned and operated by Sumitomo Rubber USA, LLC (Sumitomo), is located in Tonawanda, New York (see Figure 1). The Facility is approximately 128 acres in size and consists of two parcels of land addressed as 3333 and 3337 River Road. Sumitomo manages three historical waste disposal areas located on the 3333 River Road parcel, which together consist of approximately 25 acres. These three historical waste disposal areas are individually referred to as Disposal Site A, B, and C, and are hereinafter collectively referred to as the "Site". Figure 1 shows the approximate Site location and boundaries. Dunlop Tire Corporation (Dunlop) entered into an Order on Consent (Consent Order) on April 23, 1991 with the NYSDEC to determine the nature and extent of contamination at the Site resulting from historical disposal of industrial wastes. The Site boundaries coincide with the estimated limits of fill as depicted by URS Consultants, Inc. in their April 1992 report[1], and as shown in the March 1993 Record of Decision (ROD)[2]. The Site is currently in the New York State (NYS) State Superfund Program (Site No. 915018), which is administered by the New York State Department of Environmental Conservation (NYSDEC). The Site is listed as a Class 4 site, indicating that it has been properly closed but requires continued Site management consisting of operation, maintenance, and/or monitoring.

A Site Management Plan (SMP) has been prepared for the Site to ensure implementation and management of the institutional controls (ICs) and engineering controls (ECs) in place for the Site. This Periodic Review Report (PRR) is being prepared to certify that site management activities are being conducted in accordance with the SMP.

II. Disposal Site Overview

Disposal Site A

Disposal Site A is located on the northwestern portion of the Facility (Figure 1). The surface of Site A consists of grass, trees, brush, and asphalt parking lot. Site A was reportedly used to dispose of various wastes including fly ash, slag, carbon black, asphalt, foam, tires, coal, and construction and demolition (C/D) debris until 1970, and C/D debris until 1979. The primary area of disposal, consisting of thicker fill, is located within the central and northern portions of Site A.

[1] URS Consultants, Inc., April 1992, Report of Field Investigation and Data Analysis, Inactive Disposal Site Nos. 915018 A, B, C, submitted to the NYSDEC.

[2] New York State Department of Environmental Conservation, March 1993, Record of Decision, Dunlop Tire and Rubber, Site No. 915018A, Site No. 915018B, Site No. 915018C.

As indicated above, the boundaries of Disposal Site A coincide with the estimated limits of fill as depicted by URS in their April 1992 report (Figure 2). The southern boundary (lateral extent of fill) was determined through excavation of eight test trenches by URS in 1991. The eastern and western boundaries were defined based on surface topography and configuration of waste piles. The northern extent of the fill could not be determined, as the presence of the parking lot prevented completion of test trenches in this area. As a result, the northern boundary was defined by the northwestern corner of Building 1 and a perimeter fence east of a 10,000-gallon water tank present at that time. Fill materials identified in the trenches included black and brown silt, reworked reddish/brown silty clay, ash, slag, carbon black, C/D debris, asphalt, foam, rubber tires, and coal. Three test holes were completed by Conestoga-Rovers & Associates (CRA) in 1983, and two test pits were excavated by URS in 1991, which contributed to the delineation of Disposal Site A.

Disposal Site B

Disposal Site B is located on the southwestern portion of the Facility (Figure 1). The surface of Site B consists of grass and asphalt parking lot and driveway. Site B was reportedly used to dispose of various solid wastes, including scrap rubber (natural and synthetic), golf balls, plastics, carbon black, fly ash, amines, antioxidants, and general refuse until 1970.

The boundaries of Disposal Site B coincide with the estimated limits of fill as depicted by URS in their April 1992 report (Figure 2). The southern and western boundaries (lateral extent of fill) were determined through excavation of seven test trenches by URS in 1991. The eastern extent of the fill count not be determined, as the presence of the parking lot prevented completion of test trenches in this area. However, aerial photographs reportedly confirm waste disposal eastward into the parking lot. The northern extent of the fill could not be determined due to the presence of the settling pond. Fill materials identified in the trenches included black and brown silt, C/D debris, asphalt, coal, and rubber. Seventeen test holes were completed by CRA in 1983, and five test pits were excavated by URS in 1991, which contributed to the delineation of Disposal Site B.

Disposal Site C

Disposal Site C is located on the eastern portion of the Facility (Figure 1). The surface of Site C consists of grass. Site C was reportedly used as a coal ash landfill until 1973. Interviews with several Dunlop retirees in the early 1980s indicated that it was common practice to dispose of all types of waste at this Site, including drums of waste solvents and degreasers.

The boundaries of Disposal Site C coincide with the estimated limits of fill as depicted by URS in their April 1992 report (Figure 3). The southern and eastern boundaries (lateral extent of fill) were determined through excavation of six test trenches by URS in 1991. The northern boundary was defined by a scrap along the outer toe of the fill where it contacted the original surface. The berm-like area between the fence and railroad tracks constituting the western portion of Disposal Site C was defined based on topography. Fill

materials identified in the trenches included black and brown silt, ash, slag, sand and gravel, C/D debris, and rubber. Five test holes were completed by CRA in 1983, and six test pits were excavated by URS in 1991, which contributed to the delineation of Disposal Site C.

III. Institutional and Engineering Control Plan

Since remaining contamination exists at the Site, ICs and ECs are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the Site.

Institutional Controls

A series of ICs are required by the ROD to:

1. Implement, maintain and monitor EC systems
2. Prevent future exposure to remaining contamination

Adherence to these ICs on the Site is required by the ROD and the Consent Order and will be implemented under the Site's Long-Term Monitoring Plan. ICs may not be discontinued without an amendment to the Consent Order. The IC boundaries are the same as the Site boundaries.

The ICs, as described in the March 1993 ROD, consist of the following:

- Post-closure maintenance and monitoring will be conducted for 30 years, starting in 1995, to ensure the long-term effectiveness of the remedy and provide early detection should failure occur.
- The Order on Consent signed by Dunlop, effective April 23, 1991, is a legally binding agreement that requires the company to inspect the final cover quarterly (the frequency has been reduced to semi-annually) and maintain it for 30 years. This maintenance program, in combination with the post-closure monitoring program, will help ensure the long-term effectiveness of the cap. If during that time the Department concludes that any element of the cover fails to perform as predicted, or otherwise fails to protect human health or the environment, the Department can require Sumitomo to make modifications or repairs as required.
- If Sumitomo closes the Facility, the Order on Consent requires the company to continue its maintenance and monitoring programs.
- If the property is sold, Sumitomo must notify the Department within 60 days of closing and furnish the name(s) of the prospective new owner(s) of the property. In addition, Sumitomo must inform the new owner(s) about the landfills and that an Order on Consent is in effect.

Engineering Controls

The purpose of the ECs is to prevent direct human contact with on-Site waste, prevent the erosion and transport of contaminated soil from the Site into surrounding wetland areas, control the migration of contaminated groundwater form the Site, and reduce

environmental risk to wildlife living in the surrounding wetlands. The ECs, as described in the March 1993 ROD, include the following:

- The three landfills were capped with 18 inches of clay compacted to a minimum permeability (hydraulic conductivity) of $1x10^{-7}$ cm/sec. The caps were covered with 6 inches of soil amenable to plant growth, seeded, and mulched. Areas overlying the three landfills associated with vehicle traffic were paved in the fall of 1992.
- Surface water runoff is directed to catch basins that discharge to the plant settling pond. Monitoring of this pond occurs semi-annually as a SPDES permit condition.
- The Site is fenced.

The Site cap is a permanent control and the quality and integrity of the cap is inspected semi annually.

IV. Inspections and Monitoring Activities

Semi-annual Cap Inspection

The cap at the Site is intended to prevent contact between Site visitors and workers and the remaining contamination. The cap consists of low permeability clay covered by soil capable of sustaining vegetation, and by areas of asphalt pavement over portions of the Site subject to vehicle traffic (no confirmed clay cap). An inspection of the cap at all three disposal Sites is performed on a semi-annual basis in accordance with the SMP schedule, regardless of the frequency of the Periodic Review Report (PRR).

Each cap inspection includes a walkover and visual assessment of the cap. The inspection does not include any areas where work is being performed. The following items are evaluated to ascertain the need for corrective action:

- Soil cover system – The presence of desiccation cracks, freeze/thaw damage, and the presence of seeps or leachate breakouts.
- Asphalt – The quality of the pavement for cracking or other deterioration
- Landscaping – The vigor and density of the vegetative cover both on the cap and in grass-lined drainage ways as well as bare, sparse, and undernourished areas
- Erosion – The presence of any erosion.
- Settlement – Visual evidence of differential settlement and its impact on either the cap integrity or required drainage patterns
- Drainage features – Ditches, culverts, piping, and structures for siltation, ponding, or erosion damage.
- Ancillary features – The integrity of other remedial action features such as fences and access roads and any items in need of repair.

The semi-annual cap inspections were completed on October 10, 2018 and June 19, 2019. Both inspections showed that the caps on all three disposals areas are in good condition. The inspection forms are provided in Appendix A.

No corrective actions are required at this time.

Groundwater Monitoring

Groundwater monitoring is performed annually to monitor the long-term effectiveness of the Site closure and provide for early detection should failure occur, as outlined in the SMP. Trends in contaminant concentrations in groundwater are evaluated to determine if the ICs and ECs in place at the Site continue to be effective in protecting public health and the environment. Wells downgradient of the capped areas are monitored to evaluate the effectiveness of the closure action. Wells upgradient of the capped areas will be monitored, as needed based on the downgradient results, to determine if upgradient groundwater, rather than the disposal areas, might be a source of downgradient impacts. In this case, the effectiveness of the closure would not be questioned.

The Groundwater monitoring well network includes the following seven wells (Figures 2 and 3):

- Upgradient wells: OMW-A6 and OMW-C1 (could not be located)
- Downgradient wells: OMW-B3, OMW-B4, OMW-A4, OMW-C5, and OMW-C7

Contaminants to be analyzed during each sampling event are defined as Analytical Schedule A analytes and Analytical Schedule B analytes and are listed on Table 1.

If turbidity in a groundwater sample is above 50 nephelometric turbidity unit (NTU), then both filtered and unfiltered samples are analyzed for metals in order to determine if suspended solids are contributing to the reported concentrations and, therefore, potentially giving a false indication of groundwater concentrations.

The wells requiring sampling this year (year 25) were all down gradient wells OMW-A4, OMW-B3, OMW-B4, OMW-C5 and OMW-C7. The samples were analyzed for Schedule B analytes.

Groundwater sampling was completed May 24, 2019. All parameters in all wells were below the action levels identified in Table 2. A summary of the samples results is shown on Table 3. The laboratory data report is provide as Appendix B.

No corrective actions are required at this time.

Visual Inspections of Monitoring Wells

All seven monitoring wells are visually inspected as part of the annual monitoring event, regardless of which wells are to be sampled. The wells are inspected for protective covers, well locks, water-tight locking caps, and cement pads or flush mount conditions.

The monitoring well inspections were completed on October 10, 2018 and June 19, 2019. The inspection forms are provided in Appendix C. Well OMW-C1 could not be located. The inspections show that all other monitoring wells are in good shape. The protective covers, water-tight locking caps, and cement pads for stick-up wells OMW-B4, OMW-B3, OMW-A4, OMW-C5, and OMW-C7 and the flush mount road box for well OMW-A6 are all in good condition. Will inspection forms are provided in Appendix C.

No corrective actions are required at this time.

Hydraulic Monitoring

Groundwater measurements are taken at all monitoring wells to assess groundwater flow conditions during the annual monitoring event. Table 4 summarizes the water level measurements taken during the May 24, 2019 sample event. Figure 4 shows the updated groundwater contour map with groundwater flow direction.

V. Compliance and Corrective Actions

Sumitomo is currently in compliance with the Long-Term Monitoring Plan year 24 of the 30-year plan requirements and the SMP. No issues of non-compliance were noted during this reporting year.

There are no recommendations or corrective actions based on the current conditions. The next landfill cap and monitoring well visual inspection will be completed in October 2019. The next groundwater monitoring event is scheduled to be completed in spring 2020.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 915018

Site Name Dunlop Tire and Rubber

Site Address: 3333 River Road Zip Code: 14150
City/Town: Tonawanda
County: Erie
Site Acreage: 25.000 (Landfill Areas)

Reporting Period: June 30, 2018 to June 30, 2019

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	X	
7. Are all ICs/ECs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. 915018

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
65.17-2-1.111	Sumitomo Rubber USA, LLC	Monitoring Plan O&M Plan

The March 1993 Record of Decision contained a general Institutional Control described as follows:

- Post-closure maintenance and monitoring for thirty years to ensure the long-term effectiveness of the remedy and provide early detection should failure occur;

and described more specifically as:

- Compliance with this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater monitoring must be performed as defined in this SMP; and
- Data and information pertinent to Site Management must be reported at the frequency and in a manner defined in this SMP.

There are no use restrictions on this site.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
65.17-2-1.111	Cover System Fencing/Access Control Monitoring Wells

Three seperate landfills are capped with modified 360 caps. Groundwater quality is monitored annually.

Under the requirements of the Order on Consent, Dunlop submitted a Conceptual IRM Closure Plan in November 1992 that detailed the closure of the three landfills. The landfills were closed in accordance with the plan;

Each landfill was capped with eighteen inches of clay compacted to a minimum permeability of 1 x 10-7 cm/sec and covered with six inches of soil amenable to plant growth. Due to the low concentrations of volatile organic compounds detected at the sites, and the absence of volatile readings above background levels during intrusive activities, gas venting systems were not required for any of the landfills. In addition, due to the presence of the impermeable underlying silty clay, groundwater/leachate collection and treatment was not required. Slopes of the final landfill cover systems ranged from approximately 4% to 33%.

There are no demarcation layers between the caps and underlying fill material.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 915018

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Joseph Hinkle (print name) at 10 Sheridan Drive Tonawanda, NY 14150 (print business address)

am certifying as Environmental, Health + Safety Manager (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

7/24/19
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard J. Snyder (print name) at 2055 Niagara Falls Blvd Niagara Falls NY (print business address),

am certifying as a Qualified Environmental Professional for the Owner (Owner or Remedial Party)

STATE OF NEW YORK
RICHARD J. SNYDER
LICENSED PROFESSIONAL ENGINEER

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

7-24-19
Date

Tables

Table 1
Sumitomo Rubber USA, LLC
Sampling Schedule
Inactive Waste Sites 915018 A, B and C

Year	Analytical Schedule	Number of Sampling Events Per Year							Sampling Season
		Upgradient		Downgradient					
		A6	C1	B3	B4	A4	C5	C7	
1	A	2	2	2	2	2	2	2	Spring/Fall
2, 3	B			2	2	2	2	2	Spring/Fall
4, 5	B			1	1	1	1	1	Spring
6-9	B			1	1			1	Spring
10	B			1	1	1	1	1	Spring
11-14	B			1	1			1	Spring
15	B			1	1	1	1	1	Spring
16-19	B			1	1			1	Spring
20	B			1	1	1	1	1	Spring
21-24	B			1	1			1	Spring
25	B			1	1	1	1	1	Spring
26-29	B			1	1			1	Spring
30	B			1	1	1	1	1	Spring

Notes:

Starting year was 1994. 1st Sampling Year was 1995.

Table 2
Sumitomo Rubber USA, LLC
Groundwater Action Levels for Downgradient Wells

Parameter	Type	NYSDEC Criteria[1] (ppb)	OMW-B3 (ppb)	OMW-B4[2] (ppb)	OMW-A4 (ppb)	OMW-C5 (ppb)	OMW-C7 (ppb)
2-Butanone (MEK)	VOC	50	50	50	50	50	50
Benzene	VOC	1	0.7	2	0.7	0.7	0.7
1,1-Dichloroethane	VOC	5	5	5	5	5	5
1,2-Dichloroethene (total)	VOC	5	5	5	5	5	5
1,1,1-Trichloroethane	VOC	5	5	5	5	5	5
Arsenic	MET	25	25	25	25	25	25
Cadmium	MET	5	10	28	16	16	10
Chromium	MET	50	50	178	66	66	50
Lead	MET	25	32	52	50	50	25
Total Phenols	SEMI	1	1	1	1	1	1

Notes:

VOC = Volatile Organic Compounds

MET = Metals

SEMI = Semivolatile Organic Compound

[1] NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2004

[2] Determined using existing data from OMW-B2

Table 3
Sumitomo Rubber USA, LLC
Annual Landfill Well Monitoring
Groundwater Analytical Results

Well ID		B3		B4		C7		A4		C5	
Date		Action Levels	5/24/2019	Action Levels	5/24/2019	Action Levels	5/24/2019	Action Levels	5/24/2019	Action Levels	5/24/2019
Parameters	**Units**										
Volatile Organic Compounds	µg/L										
1,1-Dichloroethane	µg/L	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)
1,2-Dichloroethane	µg/L	5	ND(0.50)	5	ND(0.50)	5	ND(0.50)	5	ND(0.50)	5	ND(0.50)
1,1,1-Trichloroethane	µg/L	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)	5	ND (2.5)
Benzene	µg/L	0.7	ND (0.50)	2	ND (0.50)	0.7	ND (0.50)	0.7	ND (0.50)	0.7	ND (0.50)
2-Butanone	µg/L	50	ND (5.0)	50	ND (5.0)	50	ND (5.0)	50	ND (5.0)	50	ND (5.0)
Total Metals											
Arsenic	µg/L	25	3.15	25	0.6	25	0.53	25	1.52	25	0.42 J
Cadmium	µg/L	10	0.07	28	0.13 J	10	0.11 J	16	0.08 J	16	0.11
Chromium	µg/L	50	7.06	178	11.51	50	10.36	66	29	66	39.46
Lead	µg/L	32	0.82	52	1.61	25	1	50	2.53	50	0.94
Dissolved Metals											
Dissolved Arsenic	µg/L	-	0.97	-	-	-	-	-	0.29 J	-	-
Dissolved Cadmium	µg/L	-	ND (5.0)	-	-	-	-	-	ND (0.2)	-	-
Dissolved Chromium	µg/L	-	0.49	-	-	-	-	-	0.73 J	-	-
Dissolved Lead	µg/L	-	ND (1.0)	-	-	-	-	-	ND(1.0)	-	-
Inorganics & Miscellaneous											
Turbidity	NTU	-	140	-	34	-	27	-	120	-	13
Specific Conductance	umhos/cm	-	1000	-	3200	-	4100	-	4600	-	3200
Total Phenolics	µg/L	1	ND (3.0)	1	ND (3.0)	1	ND (3.0)	1	ND (3.0)	1	ND (3.0)

Notes:

ND = Nondetect

J = Estimated value. The target analyte concentration is below the quantitation limit, but above the method detection limit.

Yellow highlighted results are above action levels

Table 4
Sumitomo Rubber USA, LLC
Annual Landfill Well Monitoring
Groundwater Elevations
May 2019

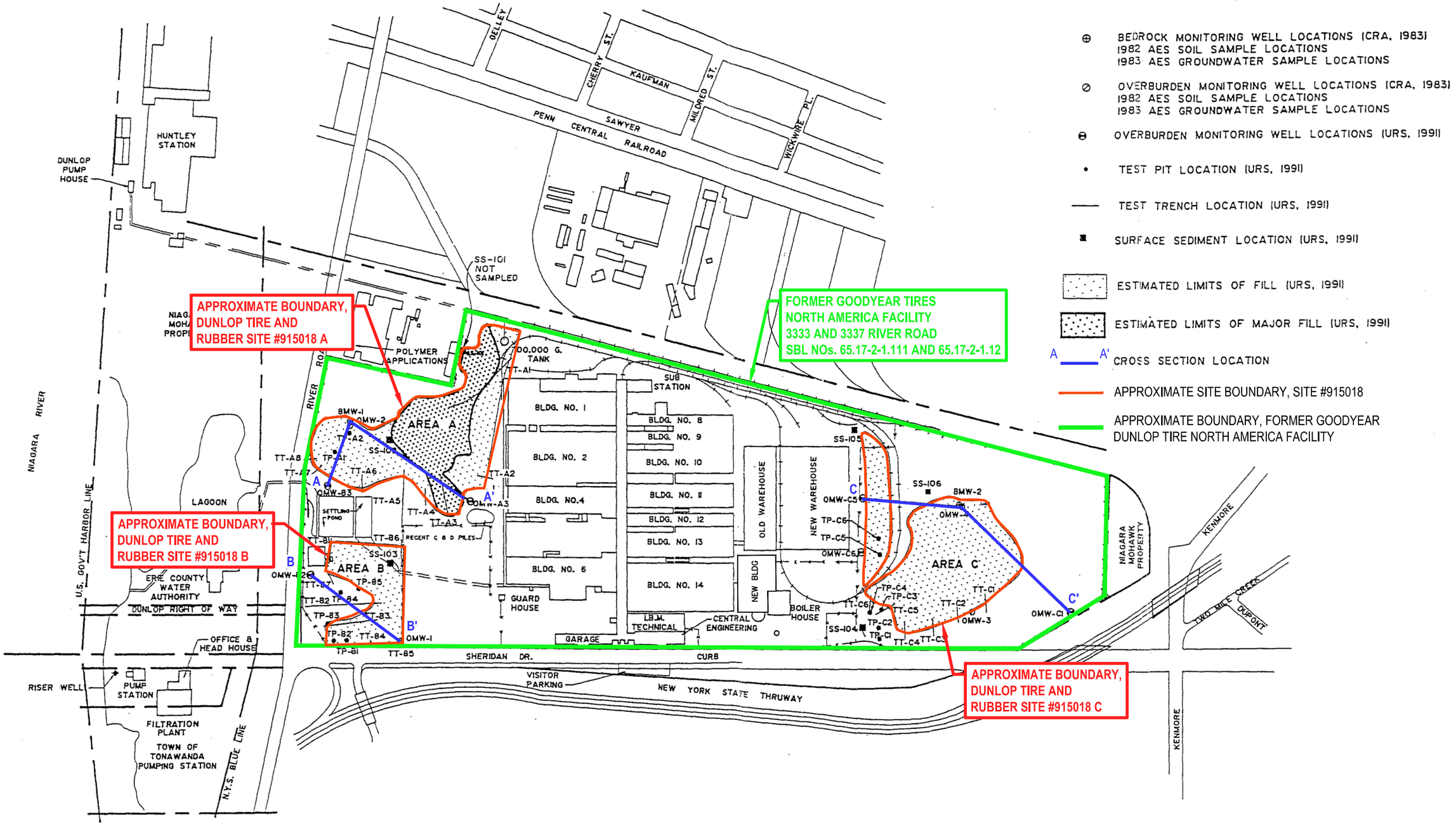
	Northing	Easting	Latitude	Longitude	Ground Elevation (FAMSL)	Top Riser Elevation (FAMSL)	Depth to Water (feet)	Groundwater Elevation (FAMSL)
Well ID								
OMW-A4	1081783.969	1056815.907	N 42º58'06.6290"	W 078º55'30.4211"	581.6	587.02	6.61	580.41
OMW-B3	1081634.987	1057041.513	N 42º58'05.1664"	W 078º55'27.3786"	577.0	579.85	5.2	574.65
OMW-B4	1081143.389	1057439.298	N 42º58'00.3265"	W 078º55'22.0014"	585.3	587.37	4.8	582.57
OMW-A6	1082260.545	1057691.331	N 42º58'11.3714"	W 078º55'18.6720"	593.84 (rim)	593.29	6.61	586.68
OMW-C5	1083560.949	1059089.490	N 42º58'24.2716"	W 078º54'59.9349"	602.5	603.87	4.15	599.72
OMW-C7	1083147.785	1059628.405	N 42º58'20.2115"	W 078º54'52.6637"	599.2	602.06	4.25	597.81

Notes:

Coordinate System based on NAD83 (2011) NY West

Elevations shown are referenced to NAVD88 NGS Monument Designation-TOM TTWTP USLS / PID-NC0305

Figures



SOURCE: URS CONSULTANTS, INC., APRIL 1992, REPORT OF FIELD INVESTIGATION AND DATA ANALYSIS, INACTIVE DISPOSAL SITES NOS. 915018 A, B, C, SUBMITTED TO THE NYSDEC.

0 500'

GHD

DUNLOP TIRE AND RUBBER SITE, SITE #915018
3333 RIVER RD TONAWANDA, NEW YORK
SITE MANAGEMENT PLAN

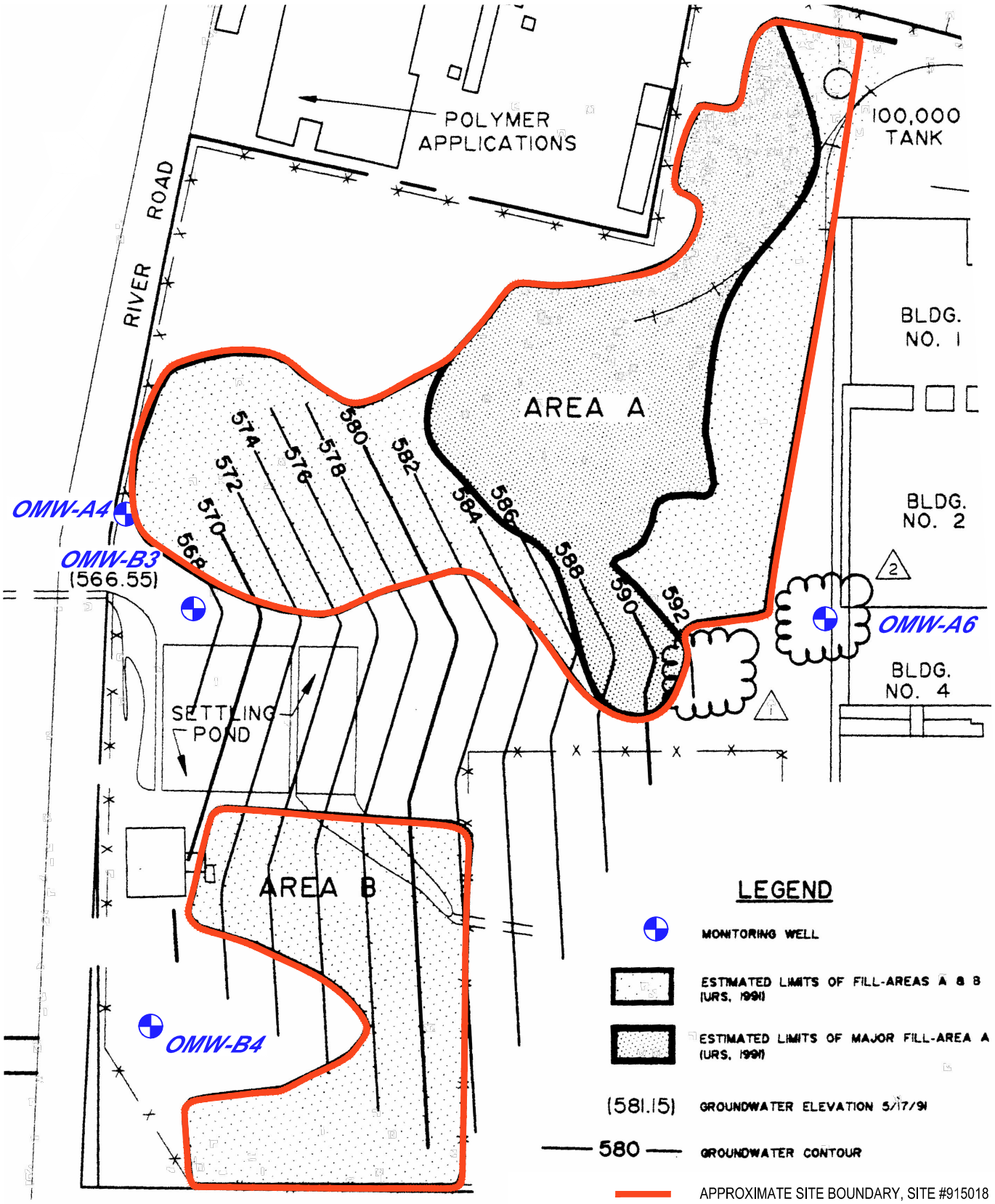
SITE PLAN

Project No. **11137137**
Report No. **2019 PRR**
Date **JUN 19**

FIGURE 1

Filename: P:\Drawings\10000000s\11137137 - Dunlop\2019 PRR\Figures\11137137 - Figure 1.dwg
Plot Date: 27 June 2019 - 12:17 PM

Source:



SOURCE: URS CONSULTANTS, INC., JULY 1994, LONG-TERM MONITORING PLAN, CLOSURE OF INACTIVE WASTE SITES, NYSDEC NOs. 915018 A, B, C, PREPARED FOR DUNLOP TIRE CORPORATION.

0 200'

GHD

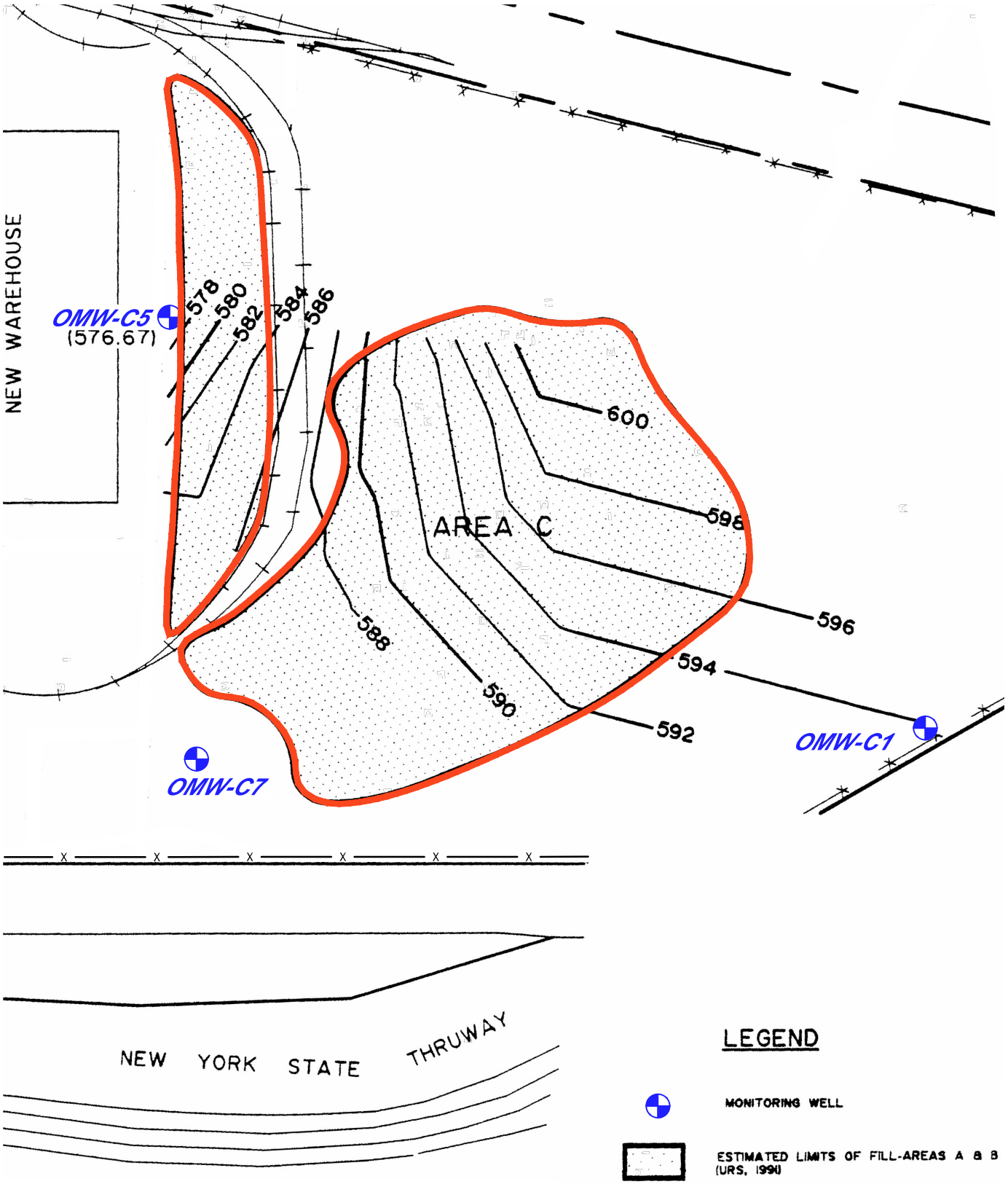
DUNLOP TIRE AND RUBBER SITE, SITE #915018
3333 RIVER RD TONAWANDA, NEW YORK
SITE MANAGEMENT PLAN

LOCATIONS OF WELLS FOR LONG-TERM MONITORING
DISPOSAL SITES A AND B

Project No. 11137137
Report No. 2019 PRR
Date JUN 19

FIGURE 2

Filename: P:\Drawings\10000000s\11137137 - Dunlop\2019 PRR\Figures\11137137 - Figure 2.dwg
Plot Date: 27 June 2019 - 12:18 PM



LEGEND

MONITORING WELL

ESTIMATED LIMITS OF FILL-AREAS A & B (URS, 1990)

(591.42) GROUNDWATER ELEVATION 5/17/91

590 GROUNDWATER CONTOUR

APPROXIMATE SITE BOUNDARY, SITE #915018

SOURCE: URS CONSULTANTS, INC., JULY 1994, LONG-TERM MONITORING PLAN, CLOSURE OF INACTIVE WASTE SITES, NYSDEC NOs. 915018 A, B, C, PREPARED FOR DUNLOP TIRE CORPORATION.

0 200'

N

GHD

DUNLOP TIRE AND RUBBER SITE, SITE #915018
3333 RIVER RD TONAWANDA, NEW YORK
SITE MANAGEMENT PLAN

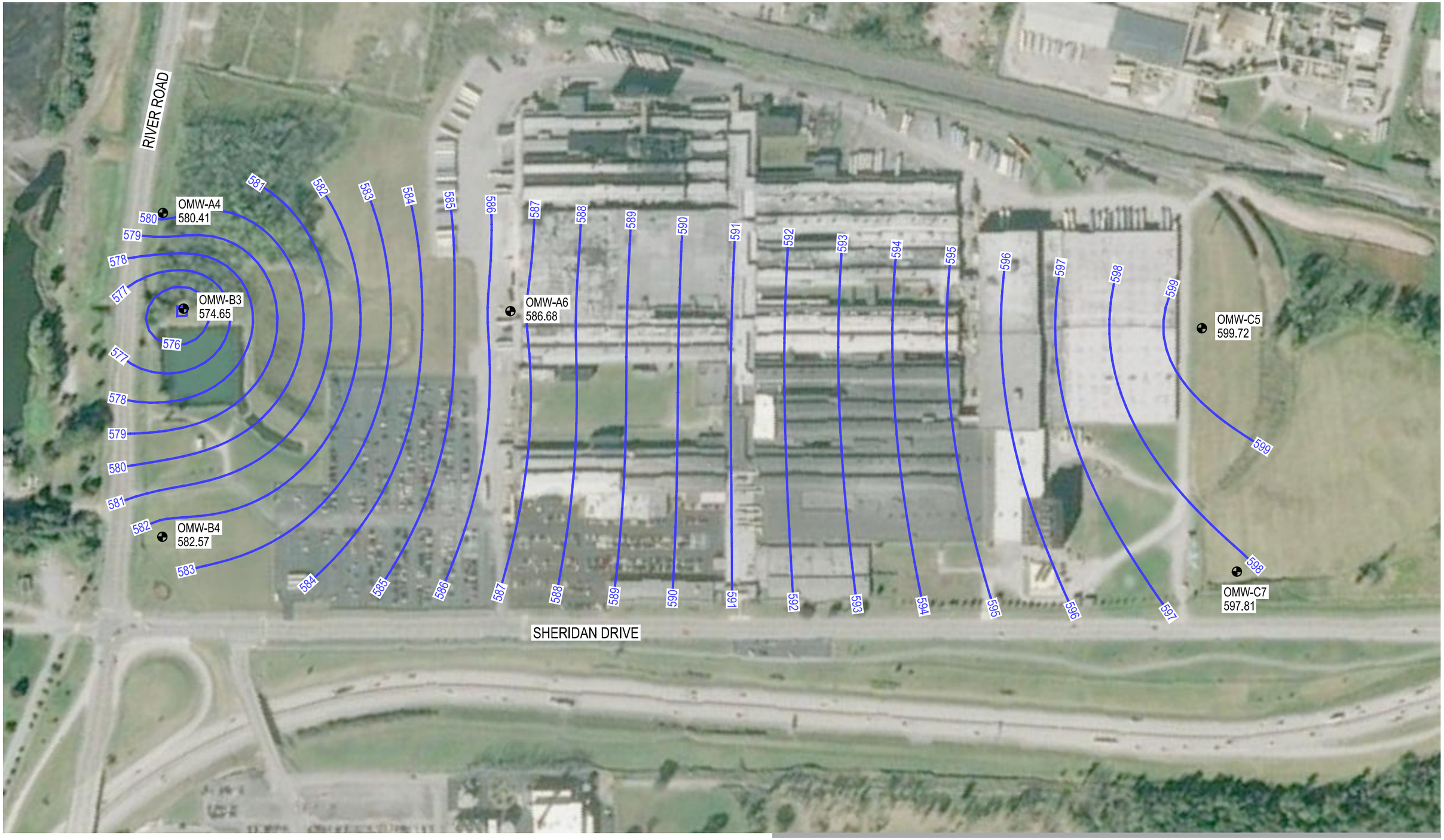
LOCATIONS OF WELLS FOR LONG-TERM MONITORING

DISPOSAL SITE C

Project No. 11137137
Report No. 2019 PRR
Date JUN 19

FIGURE 3

Filename: P:\Drawings\10000000s\11137137 - Dunlop\2019 PRR\Figures\11137137 - Figure 3.dwg
Plot Date: 27 June 2019 - 12:18 PM



0 250'

N

GHD

DUNLOP TIRE AND RUBBER SITE, SITE #915018
3333 RIVER RD TONAWANDA, NEW YORK
SITE MANAGEMENT PLAN

GROUNDWATER CONTOUR MAP

Project No. **11137137**
Report No. **2019 PRR**
Date **JUN 19**

FIGURE 4

Filename: P:\Drawings\10000000s\11137137 - Dunlop\2019 PRR\Figures\11137137 - Figure 4.dwg
Plot Date: 27 June 2019 - 12:18 PM

Source:

Appendix A
Landfill Cap Inspection Forms

Appendix I

Sumitomo Rubber USA, LLC
Landfill Condition - Semiannual Inspection Report

Site No.: 915018 A, B, C
Date of Inspection: 10/10/18

Name of Inspector: Christa Bucior

Management or Maintenance Activities Occurring During Inspection: None

	Topsoil Erosion Occurring?	Clay Cap Erosion Occurring?	Desiccation Cracks or Freeze/Thaw Damage Present?	Any Seeps or Leachate Breakouts Present?	Ditches Free of Obstruction?	Any Siltation, Ponding, or Erosion Damage in Drainage Features*?	Grass Cover Adequate?	Any Bare, Sparse, or Undernourished Areas Present?	Any Settlement Observed in Cover System?	Paved Areas Intact?	Any Cracking, Deterioration, or Settlement in Pavement?	Note Any Damage
AREA "B"												
Southeast Area	No	No	No	No	Yes	No	Yes	No	No	Yes	No	
Southern Area	No	No	No	No	Yes	No	Yes	No	No			
Northern Area	No	No	No	No	Yes	No	Yes	No	No			
River Road Ditch	No	No	No	No	Yes	No	Yes	No	No			
Describe any issues with ancillary features in this area (e.g., fencing, access):												
BORROW PIT												
AREA "A"												
Central Area	No	No	No	No	Yes	No	Yes	No	No			
Northeast Area	No	No	No	No	Yes	No	Yes	No	No	Yes	No	Damage discovered in June inspection was repaired and grass has grown over.
Describe any issues with ancillary features in this area (e.g., fencing, access):												
AREA "C"												
Outlying Area	No	No	No	No	Yes	No	Yes	No	No			
Major Area	No	No	No	No	Yes	No	Yes	No	No			
Ditch at Toe of Slope	No	No	No	No	Yes	No	Yes	No	No			
Sheridan Drive Ditch	No	No	No	No	Yes	No	Yes	No	No			
Stockpile Area	No	No	No	No	Yes	No	Yes	No	No			
Warehouse Ditch	No	No	No	No	Yes	No	Yes	No	No			
Describe any issues with ancillary features in this area (e.g., fencing, access):												
Paved Areas												
Parking Lot										Yes	No	
Driveway										Yes	No	
Describe any issues with ancillary features in this area (e.g., fencing, access):												

WEATHER CONDITIONS:

Temperature	73°F
Wind Direction	South
Wind Speed	8 mph
Precipitation Amount	0
Sky Conditions	Clear + Sunny
Inches of Snow Cover	0

Describe Any Corrective Action Required:
None

Describe Any Corrective Action Taken:
N/A

Are Site Records Up-To-Date? Check One: [X] YES [ ] NO

If Site Records are Not Up-To-Date, Describe the Deficiencies:
N/A

* Includes ditches, culverts, piping, and other structures associated with drainage features

DEO -00011 / 0-1 Semi-Annual Landfill Cap and Monitoring Well Visual Inspection Form
See PPS -00431

Appendix I

Sumitomo Rubber USA, LLC
Landfill Condition - Semiannual Inspection Report

Site No.: 915016 A, B, C
Date of Inspection: 10/19/17

Name of Inspector: Chris Barton
Brian Sadowski - NYSDEC

Management or Maintenance Activities Occurring During Inspection: Filling Borrow Pit

	Topsoil Erosion Occurring?	Clay Cap Erosion Occurring?	Desiccation Cracks or Freeze/Thaw Damage Present?	Any Seeps or Leachate Breakouts Present?	Ditches Free of Obstruction?	Any Siltation, Ponding, or Erosion Damage in Drainage Features*?	Grass Cover Adequate?	Any Bare, Sparse, or Undernourished Areas Present?	Any Settlement Observed in Cover System?	Paved Areas Intact?	Any Cracking, Deterioration, or Settlement in Pavement?	Note Any Damage
AREA "B"												
Southeast Area	N	N	N	N	Y	N	Y	N	N	Y	Y Minor	
Southern Area					Y		Y					
Northern Area					Y		Y					
River Road Ditch					Y		Y					
Describe any issues with ancillary features in this area (e.g., fencing, access):												
BORROW PIT												
AREA "A"												
Central Area	N	N	N	N	Y	N	Y	N	N	Y	Y - Minor	
Northeast Area	N	N	N	N	Y	N	Y	N	N			
Describe any issues with ancillary features in this area (e.g., fencing, access):												
AREA "C"												
Outlying Area	N	N	N	N	Y	N	Y	N	N			
Major Area					Y		Y					
Ditch at Toe of Slope					Y		Y					
Sheridan Drive Ditch					Y		Y					
Stockpile Area					X		Y					
Warehouse Ditch					Y		Y					
Describe any issues with ancillary features in this area (e.g., fencing, access):												
Paved Areas												
Parking Lot										Y	Y - Minor	
Driveway										Y	Y - Minor	
Describe any issues with ancillary features in this area (e.g., fencing, access):												

WEATHER CONDITIONS:

Temperature	75°
Wind Direction	West
Wind Speed	Light 3-5 mph
Precipitation Amount	Clear + Sunny
Sky Conditions	
Inches of Snow Cover	0

Describe Any Corrective Action Required:

None

Describe Any Corrective Action Taken:

NA

Are Site Records Up-To-Date? Check One: ☒ YES ☐ NO

If Site Records are Not Up-To-Date, Describe the Deficiencies:

NA

* Includes ditches, culverts, piping, and other structures associated with drainage features

Appendix B
Alpha Analytical Laboratory Report and Groundwater Measurements

ANALYTICAL REPORT

Lab Number:	L1922044
Client:	Sumitomo Rubber USA, LLC PO BOX 1109 Buffalo, NY 14240
ATTN:	Mark Craft
Phone:	(716) 879-8497
Project Name:	WELL SAMPLING
Project Number:	Not Specified
Report Date:	06/07/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1922044-01	WELL B3	WATER	BUFFALO, NY	05/24/19 10:55	05/24/19
L1922044-02	WELL B4	WATER	BUFFALO, NY	05/24/19 10:40	05/24/19
L1922044-03	WELL C7	WATER	BUFFALO, NY	05/24/19 10:10	05/24/19
L1922044-04	WELL A4	WATER	BUFFALO, NY	05/24/19 11:10	05/24/19
L1922044-05	WELL C5	WATER	BUFFALO, NY	05/24/19 10:25	05/24/19
L1922044-06	TRIP BLANK	WATER	BUFFALO, NY	05/24/19 00:00	05/24/19

Project Name:	WELL SAMPLING	**Lab Number:**	L1922044
Project Number:	Not Specified	**Report Date:**	06/07/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	WELL SAMPLING	**Lab Number:**	L1922044
Project Number:	Not Specified	**Report Date:**	06/07/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Please note that this report format does not contain typical QC parameters that were performed with these samples. As such, any QC outliers or non-conformances can only be reviewed by accessing your Alpha Customer Center account at www.alphalab.com and building a Data Usability table (format 11) in our Data Merger tool.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Cripps

Title: Technical Director/Representative Date: 06/07/19

VOLATILES

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-01
Client ID: WELL B3
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:55
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 09:00
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-02
Client ID: WELL B4
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:40
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 09:25
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-03
Client ID: WELL C7
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:10
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 09:51
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	96		70-130

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-04
Client ID: WELL A4
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 11:10
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 10:16
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	97		70-130

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-05
Client ID: WELL C5
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:25
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 10:42
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-06
Client ID: TRIP BLANK
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 00:00
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/04/19 11:07
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

METALS

Project Name: WELL SAMPLING
Project Number: Not Specified
Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-01
Client ID: WELL B3
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 05/24/19 10:55
Date Received: 05/24/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00315		mg/l	0.00050	0.00016	1	06/05/19 15:50	06/06/19 05:22	EPA 3005A	1,6020B	MG
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	06/05/19 15:50	06/06/19 05:22	EPA 3005A	1,6020B	MG
Chromium, Total	0.00706		mg/l	0.00100	0.00017	1	06/05/19 15:50	06/06/19 05:22	EPA 3005A	1,6020B	MG
Lead, Total	0.00082	J	mg/l	0.00100	0.00034	1	06/05/19 15:50	06/06/19 05:22	EPA 3005A	1,6020B	MG
Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.00097		mg/l	0.00050	0.00016	1	06/06/19 22:15	06/07/19 14:49	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	06/06/19 22:15	06/07/19 14:49	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00049	J	mg/l	0.00100	0.00017	1	06/06/19 22:15	06/07/19 14:49	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	06/06/19 22:15	06/07/19 14:49	EPA 3005A	1,6020B	AM

Project Name: WELL SAMPLING
Project Number: Not Specified
Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-02
Client ID: WELL B4
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 05/24/19 10:40
Date Received: 05/24/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00060		mg/l	0.00050	0.00016	1	06/05/19 15:50	06/06/19 05:26	EPA 3005A	1,6020B	MG
Cadmium, Total	0.00013	J	mg/l	0.00020	0.00005	1	06/05/19 15:50	06/06/19 05:26	EPA 3005A	1,6020B	MG
Chromium, Total	0.01151		mg/l	0.00100	0.00017	1	06/05/19 15:50	06/06/19 05:26	EPA 3005A	1,6020B	MG
Lead, Total	0.00161		mg/l	0.00100	0.00034	1	06/05/19 15:50	06/06/19 05:26	EPA 3005A	1,6020B	MG

Project Name: WELL SAMPLING
Project Number: Not Specified
Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-03
Client ID: WELL C7
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 05/24/19 10:10
Date Received: 05/24/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00053		mg/l	0.00050	0.00016	1	06/05/19 15:50	06/06/19 05:30	EPA 3005A	1,6020B	MG
Cadmium, Total	0.00011	J	mg/l	0.00020	0.00005	1	06/05/19 15:50	06/06/19 05:30	EPA 3005A	1,6020B	MG
Chromium, Total	0.01036		mg/l	0.00100	0.00017	1	06/05/19 15:50	06/06/19 05:30	EPA 3005A	1,6020B	MG
Lead, Total	0.00100		mg/l	0.00100	0.00034	1	06/05/19 15:50	06/06/19 05:30	EPA 3005A	1,6020B	MG

Project Name: WELL SAMPLING
Project Number: Not Specified
Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-04
Client ID: WELL A4
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 05/24/19 11:10
Date Received: 05/24/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00152		mg/l	0.00050	0.00016	1	06/05/19 15:50	06/06/19 05:34	EPA 3005A	1,6020B	MG
Cadmium, Total	0.00008	J	mg/l	0.00020	0.00005	1	06/05/19 15:50	06/06/19 05:34	EPA 3005A	1,6020B	MG
Chromium, Total	0.02900		mg/l	0.00100	0.00017	1	06/05/19 15:50	06/06/19 05:34	EPA 3005A	1,6020B	MG
Lead, Total	0.00253		mg/l	0.00100	0.00034	1	06/05/19 15:50	06/06/19 05:34	EPA 3005A	1,6020B	MG
Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.00029	J	mg/l	0.00050	0.00016	1	06/06/19 22:15	06/07/19 15:06	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	06/06/19 22:15	06/07/19 15:06	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00073	J	mg/l	0.00100	0.00017	1	06/06/19 22:15	06/07/19 15:06	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	06/06/19 22:15	06/07/19 15:06	EPA 3005A	1,6020B	AM

Project Name: WELL SAMPLING
Project Number: Not Specified
Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-05
Client ID: WELL C5
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 05/24/19 10:25
Date Received: 05/24/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.00042	J	mg/l	0.00050	0.00016	1	06/05/19 15:50	06/06/19 05:39	EPA 3005A	1,6020B	MG
Cadmium, Total	0.00011	J	mg/l	0.00020	0.00005	1	06/05/19 15:50	06/06/19 05:39	EPA 3005A	1,6020B	MG
Chromium, Total	0.03946		mg/l	0.00100	0.00017	1	06/05/19 15:50	06/06/19 05:39	EPA 3005A	1,6020B	MG
Lead, Total	0.00094	J	mg/l	0.00100	0.00034	1	06/05/19 15:50	06/06/19 05:39	EPA 3005A	1,6020B	MG

INORGANICS
&
MISCELLANEOUS

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-01
Client ID: WELL B3
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:55
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	140		NTU	1.0	0.30	5	-	05/25/19 09:53	121,2130B	MA
Specific Conductance @ 25 C	1000		umhos/cm	10	10.	1	-	05/25/19 08:42	1,9050A	MA
Phenolics, Total	ND		mg/l	0.030	0.006	1	05/30/19 04:30	05/31/19 05:22	4,420.1	GD

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-02
Client ID: WELL B4
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:40
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	34		NTU	0.20	0.06	1	-	05/25/19 09:53	121,2130B	MA
Specific Conductance @ 25 C	3200		umhos/cm	10	10.	1	-	05/25/19 08:42	1,9050A	MA
Phenolics, Total	ND		mg/l	0.030	0.006	1	05/30/19 04:30	05/31/19 05:23	4,420.1	GD

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-03
Client ID: WELL C7
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:10
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	27		NTU	0.20	0.06	1	-	05/25/19 09:53	121,2130B	MA
Specific Conductance @ 25 C	4100		umhos/cm	10	10.	1	-	05/25/19 08:42	1,9050A	MA
Phenolics, Total	ND		mg/l	0.030	0.006	1	05/30/19 04:30	05/31/19 05:24	4,420.1	GD

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-04
Client ID: WELL A4
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 11:10
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	120		NTU	1.0	0.30	5	-	05/25/19 09:53	121,2130B	MA
Specific Conductance @ 25 C	4600		umhos/cm	10	10.	1	-	05/25/19 08:42	1,9050A	MA
Phenolics, Total	ND		mg/l	0.030	0.006	1	05/30/19 04:30	05/31/19 05:25	4,420.1	GD

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

SAMPLE RESULTS

Lab ID: L1922044-05
Client ID: WELL C5
Sample Location: BUFFALO, NY

Date Collected: 05/24/19 10:25
Date Received: 05/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Turbidity	13		NTU	0.20	0.06	1	-	05/25/19 09:53	121,2130B	MA
Specific Conductance @ 25 C	3200		umhos/cm	10	10.	1	-	05/25/19 08:42	1,9050A	MA
Phenolics, Total	ND		mg/l	0.030	0.006	1	05/30/19 04:30	05/31/19 05:26	4,420.1	GD

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1922044-01A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-01B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-01C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-01D	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		TURB-2130(2),COND-9050(28)
L1922044-01E	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		-
L1922044-01F	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1922044-01G	Amber 1000ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NY-TPHENOL-420(28)
L1922044-01X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.6	Y	Absent		CR-6020S(180),PB-6020S(180),AS-6020S(180),CD-6020S(180)
L1922044-02A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-02B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-02C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-02D	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		TURB-2130(2),COND-9050(28)
L1922044-02E	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		-
L1922044-02F	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1922044-02G	Amber 1000ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NY-TPHENOL-420(28)
L1922044-02X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.6	Y	Absent		HOLD-METAL-DISSOLVED(180)
L1922044-03A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-03B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-03C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-03D	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		TURB-2130(2),COND-9050(28)
L1922044-03E	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		-
L1922044-03F	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)

*Values in parentheses indicate holding time in days

Project Name: WELL SAMPLING
Project Number: Not Specified

Lab Number: L1922044
Report Date: 06/07/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1922044-03G	Amber 1000ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NY-TPHENOL-420(28)
L1922044-03X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.6	Y	Absent		HOLD-METAL-DISSOLVED(180)
L1922044-04A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-04B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-04C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-04D	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		TURB-2130(2),COND-9050(28)
L1922044-04E	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		-
L1922044-04F	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1922044-04G	Amber 1000ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NY-TPHENOL-420(28)
L1922044-04X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.6	Y	Absent		CR-6020S(180),PB-6020S(180),AS-6020S(180),CD-6020S(180)
L1922044-05A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-05B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-05C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-05D	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		TURB-2130(2),COND-9050(28)
L1922044-05E	Plastic 250ml unpreserved	A	7	7	4.6	Y	Absent		-
L1922044-05F	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180)
L1922044-05G	Amber 1000ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NY-TPHENOL-420(28)
L1922044-05X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.6	Y	Absent		HOLD-METAL-DISSOLVED(180)
L1922044-06A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L1922044-06B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	WELL SAMPLING	**Lab Number:**	L1922044
Project Number:	Not Specified	**Report Date:**	06/07/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report - No QC w/'J' Qual

Project Name:	WELL SAMPLING	**Lab Number:**	L1922044
Project Number:	Not Specified	**Report Date:**	06/07/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report - No QC w/'J' Qual

Project Name:	WELL SAMPLING	**Lab Number:**	L1922044
Project Number:	Not Specified	**Report Date:**	06/07/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 5/24/19

ALPHA Job #: L19 22044

Client Information

Client: Sumitomo (GOODYR-ISLE)
Address: PO Box 1109
Buffalo, NY 14240
Phone: 716-879-8497
Fax: 716-879-8400
Email: mcraft@sumitomorubber-usa.com

Project Information

Project Name: Well Sampling
Project Location: Buffalo, NY
Project #
(Use Project name as Project #) ☐
Project Manager: Mark Craft
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☑ Same as Client Info
PO # 4600032598

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Total and Dissolved Metals List: As,Cd,Cr,Pb (Lab to filter dissolved metals & Only analyze if turb is >50)
Volatiles List: MEK, Benzene, 1,1-dichloroethane, 1,2-dichloroethane and 1,1,1-trichloroethane-

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☑ Lab to do
Preservation
☑ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC (2175)- Site Specific	Total Phenols	Total Metals	*Dissolved Metals*	Specific Conductance	Turbidity			Sample Specific Comments	Total Bottle
22044-01	Well B3	05/24/19	1055	GW	AH	X	X	X	X	X	X				7
-02	Well B4		1040	GW		X	X	X	X	X	X				7
-03	Well C7		1010	GW		X	X	X	X	X	X				7
-04	Well A4		1110	GW		X	X	X	X	X	X				7
-05	Well C5		1025	GW		X	X	X	X	X	X				7
-06	Trip Blank			DI Water		X									2

Container Type	V	A	P	P	P	P		
Preservative	H	D	C	A	A	A		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
AH			
Patrick J. Doherty	05/24/19 1730		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ALPHA ANALYTICAL

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Purge

Monitoring Well ID: A4

Sampling Date: 05/24/19

Well Structure Data

Evacuation Date: 5/23/19

Water Elevation: ES ~~6.61ft~~

Top of Inner Casing Elevation: _____

Bottom of Well: 28.30ft

Monitoring Well Diameter: 2.5inch

Volume of Standing Water: ~~21.69~~ 3.535 gallons ~~7.37 1/2 gallons~~

Water Level: 6.61ft

Volume of Evacuated Water: 10.6gal

Appearance/Observation: Clear/No Oder

Well Field Parameter Data

pH - Standard Units: 7.58

Specific Conductance: _____

Temperature - deg C/deg F 13.1°C

Turbidity: Moderate

% Recharge: 21.69 − 4.05 = 27%

Misc. Well Information

Was Well Locked? Yes

Physical Condition of Well: Good

Was Well ID Easily Visible? Yes

Solids Content: ~~Moderate~~

Weather on Sampling Day Clear

Purging Method: ISCO pump

Purge Rain

Patrick Hayes — Technician

05/24/19 — Date

ALPHA ANALYTICAL

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Purge

Monitoring Well ID: B3

Sampling Date: 05/24/19

Well Structure Data

Evacuation Date: 05/23/19

Water Elevation: _____

Top of Inner Casing Elevation: _____

Bottom of Well: 17.20

Monitoring Well Diameter: 2 inch

Volume of Standing Water: +2 1.956 gallons

Water Level: 5.20 ft

Volume of Evacuated Water: 5.8

Appearance/Observation: Clear / No Oder

Well Field Parameter Data

pH - Standard Units: 6.97

Specific Conductance: _____

Temperature - deg C/deg F 11.5

Turbidity: Cloudy orange

% Recharge: 1200 9.45 78%

Misc. Well Information

Was Well Locked? Yes

Physical Condition of Well: Good

Was Well ID Easily Visible? Yes

Solids Content: Minimal

Weather on Sampling Day Purge rain Sample Clear

Purging Method: Isco Pump

Patrick J Hogerty — Technician

05/24/19 — Date

ALPHA ANALYTICAL

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Purge

Monitoring Well ID: C-7

Sampling Date: 05/24/19

Well Structure Data

Evacuation Date: 05/23/19

Water Elevation: _____

Top of Inner Casing Elevation: _____

Bottom of Well: 23.55

Monitoring Well Diameter: 2.5 "

19.3' Volume of Standing Water: ~~9.4377 gallons~~ 3.14 gallons

Water Level: 4.25'

Volume of Evacuated Water: 10.0 gallons

Appearance/Observation: Clear/No odor

Well Field Parameter Data

pH - Standard Units: 7.35

Specific Conductance: _____

Temperature - deg C/deg F 12.0°C

Turbidity: _____

% Recharge: 19.3 - 12.65 = 65%

Misc. Well Information

Was Well Locked? Yes

Physical Condition of Well: OK

Was Well ID Easily Visible? Yes

Solids Content: Clear

Weather on Sampling Day Purge Rain/Clear sample

Purging Method: Peristaltic Pump

Patricia Haggerty
Technician

05/24/19
Date

ALPHA

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Purge

Monitoring Well ID: C-5

Sampling Date: 05/24/19

Well Structure Data

Evacuation Date: 05/23/19

Water Elevation: _____

Top of Inner Casing Elevation: _____

Bottom of Well: 29.50

Monitoring Well Diameter: 2.5 "

Volume of Standing Water: 25.35 ~~42.15~~ 4.132 Gallons

Water Level: 4.15

Volume of Evacuated Water: 12 gallons

Appearance/Observation: Clear no Odor

Well Field Parameter Data

pH - Standard Units: 7.11

Specific Conductance: _____

Temperature - deg C/deg F 12.0°C

Turbidity: _____

% Recharge: 25.35 - 22.40 = 85%

Misc. Well Information

Was Well Locked? Yes

Physical Condition of Well: good

Was Well ID Easily Visible? Yes

Solids Content: moderate

Weather on Sampling Day: Rain/Clear sample

Purging Method: Peristaltic Pump

Patricia Hagerty — Technician

05/24/19 — Date

ALPHA ANALYTICAL

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Purge

Monitoring Well ID: B4

Sampling Date: 05/24/19 Sample

Well Structure Data

Evacuation Date: 05/23/19

Water Elevation: _____

Top of Inner Casing Elevation: _____

Bottom of Well: 22.50

Monitoring Well Diameter: 2.5inch

Volume of Standing Water: ~~17.70~~ 2.885/gallons

Water Level: 4.80

Volume of Evacuated Water: 8.6

Appearance/Observation: Clear/No Oder

Well Field Parameter Data

pH - Standard Units: 7.68

Specific Conductance: _____

Temperature - deg C/deg F 11.8°C

Turbidity: Clear

% Recharge: 17.7 − 7.95 = 45%

Misc. Well Information

Was Well Locked? Yes

Physical Condition of Well: Good

Was Well ID Easily Visible? Yes

Solids Content: Clear

Weather on Sampling Day rain Purge Clear Sampling

Purging Method: ISCO pump

Patrick Hagerty — Technician

05/24/19 — Date

ALPHA

275 Cooper Ave
Tonawanda, NY 14150
716-427-5225
alphalab.com

Groundwater Monitoring Information Sheet

Site Name: Goodyear Dunlop Tire

Sampling Date: 05/23/19 Record data only

Monitoring Well ID: A-6

Sampling Date: _____

Well Structure Data

Evacuation Date: _____ Water Elevation: _____

Top of Inner Casing Elevation: _____ Bottom of Well: _____

Monitoring Well Diameter: _____" Volume of Standing Water: _____

Water Level: 6.61' From casing Volume of Evacuated Water: _____

Appearance/Observation: OK

Well Field Parameter Data

pH - Standard Units: _____ Specific Conductance: _____

Temperature - deg C/deg F _____ Turbidity: _____

% Recharge: _____

Misc. Well Information

Was Well Locked? No Physical Condition of Well: OK

Was Well ID Easily Visible? No Solids Content: _____

Weather on Sampling Day Rain Purging Method: _____

_____ _____

Technician Date

Appendix C

Well Condition Inspection Forms

Appendix I

Sumitomo Rubber USA, LLC
Well Inspection Form

										NA if Stick-up (SU)												
Well Number	Installation Type	Inspector Initials	Inspection Date	Access	Installed Depth (Ft. BTOR)	Sounded Depth (Ft. BTOR)	Exterior ID	Interior ID	Condition of Well Casing	Flushmount (FM) - Surface Water	FM - Water in Curb Box	Condition of Curb Box	Gasket	Bolts	Lid	Concrete Base or Cement Pad	J-plug or Slip Cap	Locks	NAPL Present	NAPL Thickness (feet)	Notes	List Corrective Actions Required to Repair Deficiencies
OMW-A6	Steel	CLB	10/10/18	G	(23.5 ft. bgs)	6.6'	A6	A6	G	5 gal	1 gal	G	G	G	G	G	G	G	N	—	No lock required. Cover is held down by bolts that are in good condition	
OMW-C1					19.84																This well is not found. will locate once vegetation dies off	
OMW-B3	Steel	CLB	10/10/18	G	17.28	13.5'	B3	B3	G	5gal	1.63 gal	G	G	G	G	G	G	G	N	—	Lock replaced Sept. 2018	
OMW-B4	Steel	CLB	10/10/18	G	(20.5 ft. bgs)	5.7'	B4	B4	G	5.5 gal	2.78 gal	G	G	G	G	G	G	G	N	—	Lock replaced Sept. 2018	
OMW-A4	Steel	CLB	10/10/18	G	(23.0 ft. bgs)	7.1'	A4	A4	G	8 gal	3 gal	G	G	G	G	G	G	G	N	—	Lock replaced July 2018 Concrete Base is deteriorating	
OMW-C5	Steel	CLB	10/10/18	G	28.97	8.3'	C5	C5	G	7 gal	2.41 gal	G	G	G	G	G	G	G	N	—	Locks replaced July 2018	
OMW-C7	Steel	CLB	10/10/18	G	(21.0 ft. bgs)	7.1'	C5	C5	G	8 gal	3 gal	G	G	G	G	G	G	G	N	—	Lock replaced July 2018	

Notes:

Ft. BTOR	- Feet below top of riser
ft. bgs	- Feet below ground surface
NAPL	- Non-aqueous Phase Liquid
P	- Poor
G	- Good
NA	- Not Applicable
N	- No
Y	- Yes
EW	- Extraction Well

DEO -00011 / 0-1 Semi-Annual Landfill Cap and Monitoring Well Visual Inspection Form
See PPS -00431

Appendix I

Sumitomo Rubber USA, LLC
Well Inspection Form

											NA if Stick-up (SU)													
Well Number	Installation Type	Inspector Initials	Inspection Date	Access	Installed Depth (Ft. BTOR)	Sounded Depth (Ft. BTOR)	Exterior ID	Interior ID	Condition of Well Casing	Flushmount (FM) - Surface Water	FM - Water in Curb Box	Condition of Curb Box	Gasket	Bolts	Lid	Concrete Base or Cement Pad	J-plug or Slip Cap	Locks	NAPL Present	NAPL Thickness (feet)	Notes	List Corrective Actions Required to Repair Deficiencies
OMW-A6	S	CMB	6/19/19	G	(23.5 ft. bgs)	NM	A6	A6	G	N	N	G	G	G	G	G	G	G	NO	NA		
OMW-C1					19.84																Not Located	
OMW-B3	S	CMB	6/19/19	G	17.28	17.2	B3	B3	G	NA	NA	NA	NA	NA	NA	G	G	G	NO	NA		
OMW-B4	S	CMB	"	"	(20.5 ft. bgs)	22.5	B4	B4	G	"	"	"	"	"	"	G	G	G	"	"		
OMW-A4	S	CMB	"	"	(23.0 ft. bgs)	28.3	A4	A4	G	"	"	"	"	"	"	G	G	G	"	"		
OMW-C5	S	CMB	"	"	28.97	29.5	C5	C5	G	"	"	"	"	"	"	G	G	G	"	"		
OMW-C7	S	CMB	"	"	(21.0 ft. bgs)	23.55	C7	C7	G	"	"	"	"	"	"	G	G	G	"	"		

Notes:

Ft. BTOR - Feet below top of riser
ft. bgs - Feet below ground surface
NAPL - Non-aqueous Phase Liquid
P - Poor
G - Good
NA - Not Applicable
N - No
Y - Yes
EW - Extraction Well