



Wisconsin Public Service Corporation

Environmental Department
333 W. Everett St.
Milwaukee, WI 53203

August 23, 2024

Mr. Anthony Peterson
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, WI 53188

via electronic submittal

**RE: PLAN OF OPERATION MODIFICATION; REVISED SUBMITTAL
WISCONSIN PUBLIC SERVICE WESTON DISPOSAL SITE #3 ASH LANDFILL
LICENSE #3067 - FID# 737054120**

Dear Mr. Peterson

Please find enclosed an updated Plan of Operation Modification (POM) for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 (WDS#3) Ash Landfill (License #3067) referenced above.

On August 1, 2022, Wisconsin Administrative Code NR 500 was updated to include changes to new and existing Coal Combustion Residual (CCR) Landfills in Wisconsin. On January 31, 2023, an updated POM for this CCR landfill was submitted to the Wisconsin Department of Natural Resources (WDNR) as required in NR 514.045.

Since the January 31, 2023 POM submittal, the WDNR has provided two Incompleteness Determination letters regarding the contents of the documents. The responses were dated April 26, 2023 and March 18, 2024, respectively.

To ensure an accurate record of the POM issues and concerns raised by the Department and addressed herein by our consultants, GEI Consultants, Inc. (GEI) and Ramboll Americas Engineering Solutions, Inc. (Ramboll), I am electronically providing the following two documents (attached as Sections 1 and 2).

1. This section includes the March 18, 2024 WDNR Incompleteness Determination letter along with the specific responses prepared by Ramboll and GEI to address to each of the various issues and concerns highlighted within the letter.
2. This section includes the revised POM dated December 19, 2023. This document was updated to include baseline groundwater data and address other concerns expressed in the Department's April 26, 2023 Incompleteness Determination letter. The December 19, 2023 POM was a complete revision/update of the original January 31, 2023 POM document.

Please contact me at 414.221.2457 or eric.kovatch@wecenergygroup.com with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric P. Kovatch". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Eric P. Kovatch
Facility Manager – Senior Environmental Consultant

cc: Matt Bachman (WDNR)
Eric Tlachac & Nate Keller (Ramboll)
John Trast & Andrew Schwoerer (GEI)

Attachments (identified above):

Section 1: Response to March 18, 2024 WDNR Incompleteness Determination letter.

Section 2: December 19, 2023 Plan of Operation Modification,
Wisconsin Public Service Weston Disposal Site #3 Ash Landfill

[File:\2024-08-23 WDS3 Plan of Operation Mod Submittal Cover Letter Draft]

ATTACHMENT - SECTION 1

**RESPONSE TO MARCH 18, 2024
WDNR INCOMPLETENESS DETERMINATION LETTER.**

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W Clairemont Ave.
Eau Claire, WI 54701

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



March 18, 2024

FID #737054120
Marathon County
SW/Correspondence

Mr. Eric Kovatch, P.G. – Facility Manager
WEC Energy Group – Business Services
333 W. Everett St
Milwaukee, WI 53203

Subject: Incompleteness Determination for the Plan of Operation Approval Modification for Initial Permitting of Coal Combustion Residuals (CCR) Landfill for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash Landfill (License #3067)

Dear Mr. Kovatch:

The Department of Natural Resources (department) has reviewed for completeness the plan of operation modification for initial permitting of a CCR Landfill (the plan), dated January 31, 2023, along with the addendum to the plan dated December 19, 2023, both submitted on behalf of Wisconsin Public Service Corporation (WPSC), by GEI Consultants, Inc. and Ramboll Americas Engineering Solutions, Inc. for the WPSC Weston Disposal Site No. 3 Ash Landfill.

The department has determined the plan is not complete since the minimum requirements of chs. NR 500 to 520, Wis. Adm. Code, have not been met in accordance with s. NR 514.045, Wis. Adm. Code. The department understands the complexity of the new CCR rules and its implementation and will be available to discuss the following items while you work to prepare the addenda to your initial submittal.

The following information must be provided in order for the department to issue a determination that the plan is complete:

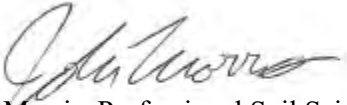
1. **Section NR 500.05(4)(b), Wis. Adm. Code:** Provide a Professional Geologist seal and certification statement that certifies the entire report.
2. **Section NR 507.15(3)(b), Wis. Adm. Code:** Provide site-specific technical data on the below listed items and provide additional discussion on how that information was considered when deciding the number, spacing, and depths of monitoring wells that are part of the proposed CCR groundwater monitoring system.
 - a. Seasonal and temporal groundwater flow.
 - b. Porosities, and effective porosities for the saturated and unsaturated geologic units overlying the uppermost aquifer and materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer.

3. **Sections NR 514.045(1)(c)1. through 3., Wis. Adm. Code:** Provide a demonstration addressing the stability items of this section that includes a discussion on overburden soil type and depth, differences in soil type across the approved landfill, and the slope of the underlying bedrock and their impact on the unstable area determination for the site.
4. **Sections NR 520.07(1), Wis. Adm. Code:** Provide justification, including supporting documentation, for the closure and long-term care cost estimates and provide an updated long-term care cost estimate table that includes the estimated cost for video inspection of the leachate collection system every five years.
5. Provide supporting justification for an NR 140 exemption and provide a discussion on the potential source of boron at downgradient monitoring well LS-106.

This incompleteness determination is not a denial of the plan, but merely indicates that additional information is needed for the department to determine the plan is complete. Submittal of this information does not ensure approval, nor does it preclude the department from requiring additional information if continued review indicates it is needed.

If you have any question regarding this letter, please contact Tony Peterson at (715) 491-8546 or anthony.peterson@wisconsin.gov, or Matthew Bachman at (608) 512-3233 or matthew.bachman@wisconsin.gov.

Sincerely,



John Morris, Professional Soil Scientist, Regional Supervisor
Northern and West Central Regions
Waste and Materials Management Program

cc: John Trast – GEI Consultants (jtrast@geiconsultants.com)
Andrew Schwoerer – GEI Consultants (aschwoerer@geiconsultants.com)
Nate Keller – Ramboll (nate.keller@ramboll.com)
Eric Tlachac – Ramboll (eric.tlachac@ramboll.com)
Tony Peterson – DNR/WA (anthony.peterson@wisconsin.gov)
Matthew Bachman – DNR/WA (matthew.bachman@wisconsin.gov)
Joseph Lourigan – DNR/WA (joseph.lourigan@wisconsin.gov)
Malena Grimm - DNR/WA (malena.grimm@wisconsin.gov)

Eric Kovatch
Senior Environmental Consultant – Waste, Recycling & Disposal
WEC Energy Group – Business Services
333 W Everett St,
Milwaukee, WI 53203

**Responses to WDNR March 18, 2024 Incompleteness
Determination for the Plan of Operation Approval Modification for
Initial Permitting of Coal Combustion Residuals (CCR) Landfill for
the Wisconsin Public Service Corporation (WPSC) Weston Disposal
Site No. 3 (WDS3) Ash Landfill (License #3067)**

August 23, 2024

Dear Eric:

Per your request, Ramboll Americas Engineering Solutions, Inc. (Ramboll) has drafted the following responses to the subject letter from the Wisconsin Department of Natural Resources' (WDNR's) dated March 18, 2024.

Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

T 414-837-3607
F 414-837-3608
www.amboll.com

WDNR Comment:

The following information must be provided in order for the department to issue a determination that the plan is complete:

Ref. 1940102327

- 2. Section NR 507.15(3)(b), Wis. Adm. Code: Provide site-specific technical data on the below listed items and provide additional discussion on how that information was considered when deciding the number, spacing, and depths of monitoring wells that are part of the proposed CCR groundwater monitoring system.**
- a. Seasonal and temporal groundwater flow.**
 - b. Porosities, and effective porosities for the saturated and unsaturated geologic units overlying the uppermost aquifer and materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer.**

Responses:

- 2.a. To provide insight into seasonal and/or temporal variation in groundwater flow, we have prepared the attached groundwater elevation contour maps for observations in June, September, and October 2023 to supplement the one contained in the Environmental Sampling and Analysis Plan (ESAP) Addendum (Appendix O of the December 19, 2023 submittal) for April 2023 (Figure 2-2).*

Note that the June and September sampling events were solely for collection & analysis of baseline parameters for the CCR wells, which are focused around the waste boundary of active Cells 1 and 2 as required by

both Title 40 of the Code of Federal Regulations (CFR) § 257.91(a)(2) and Ch. NR 507.15(3)(L)(4), Wisconsin Administrative Code (Wisc Adm Code). Consequently, we do not have data for the non-CCR wells for those events, as was collected for the April and October 2023 sampling events. Also note that the maps for the June and September events have a smaller contour interval (2 feet) than the maps for the April and October events.

The groundwater elevation contour maps for April and October 2023 depict consistent groundwater flow patterns. Groundwater elevations were lower during the October sampling event relative to the April sampling event, likely due to October being a dryer time of year than April with less precipitation and snow melt.

The groundwater elevation contour maps for April, June, September, and October 2023 all depict consistent groundwater flow patterns in the area of Cells 1 and 2. Groundwater elevations were lower during the September and October sampling events relative to the April and June sampling events, again, likely due to September and October being a dryer time of the year than April and June with less precipitation and snow melt.

As stated in both the ESAP Addendum and previous incompleteness Response letter (dated Dec 19, 2023), the bedrock surface, as depicted in the associated AECOM contour map included in Appendix B of the ESAP Addendum, is the primary driver for groundwater flow. The groundwater elevation contour maps referenced above demonstrate that there is little variation in seasonal and/or temporal groundwater flow direction, other than slight changes in groundwater elevations, and the number, spacing, and depths of the proposed CCR wells do not need to account for changes in seasonal and/or temporal groundwater flow.

- 2.b. As stated in Section 2 of the ESAP Addendum, the uppermost aquifer at this site is comprised of a thin (0.5-20 ft thick) and somewhat discontinuous unit of glacial till and weathered bedrock that is generally a silty sand underlying topsoil and overlying the igneous Precambrian granite, quartz diorite and/or amphibole bedrock. Since the uppermost aquifer is granular in nature, porosity testing was not conducted when this material was characterized, as this testing is commonly only done on fine-grained soils as part of consolidation testing. Since porosity and effective porosity of granular materials are basically the same, hydraulic conductivity is the most significant characteristic affecting groundwater flow through this material. Hydraulic conductivity of both the uppermost aquifer and the underlying bedrock was evaluated, as summarized in Section 2 of the ESAP Addendum.*

WDNR Comment:

5. Provide supporting justification for an NR 140 exemption and provide a discussion on the potential source of boron at downgradient monitoring well LS-106.

Response:

Boron concentrations at LS-106 have never exceeded the Ch. NR 140, Wisc Adm Code, Enforcement Standard (ES) of 1.0 milligram per liter (mg/L), and only occasionally exceed the PAL of 0.2 mg/L. PAL exceedances have occurred three times since 2016, twice during the baseline monitoring period for monitoring under 40 CFR § 257 (2016-2017), and once during compliance monitoring (October 2019). However, only two PAL exceedances are required by WDNR publication PUB-WA 1105 to qualify for an exemption if groundwater is unaffected by a release from the facility.

WDS3 is not the source of elevated boron concentrations at LS-106 based upon the lines of evidence presented in the technical memorandum provided in **Attachment A**.

Further, WDS3 will not cause future releases of boron into the uppermost aquifer because the landfill is designed to achieve the lowest possible concentration that is technically and economically feasible. As stated in Section 5.3 of the Plan of Operation Modification submitted December 19, 2023, the landfill has a groundwater gradient control system beneath the base liner system consisting of a one-foot thick layer of select granular fill having a minimum hydraulic conductivity of 1×10^{-3} cm/sec with a network of perforated- and solid-wall six-inch diameter, standard dimension ratio (SDR) 11 high-density polyethylene (HDPE) or Schedule 80 polyvinyl chloride (PVC) drainage pipe (see red lines on attached groundwater elevation contour maps) bedded in two-foot wide collection trenches filled with gravel meeting the Ch. NR 504, Wisc Adm Code, requirements for leachate collection systems and wrapped in geotextile filter fabric. As stated in Section 5.4 of the Plan of Operation Modification submitted December 19, 2023, the landfill also has a base liner system comprised of a two-foot thick compacted clay layer having a maximum hydraulic conductivity of 1×10^{-7} cm/sec, geosynthetic clay liner with a hydraulic conductivity of 5×10^{-9} cm/sec, 60-mil textured high-density polyethylene (HDPE) geomembrane, 12-ounce per square yard nonwoven geotextile cushion layer placed in leachate collection system pipe trenches, and a one-foot thick leachate collection layer meeting the requirements of Ch. NR 504.06(5)(a), Wisc Adm Code. The groundwater gradient control system will divert groundwater away from the base liner system when elevations are high enough to encounter the gradient control system, and the base liner system will create a barrier between leachate and groundwater and minimize leachate levels within the landfill to limits specified by Ch. NR 504.06(5)(a), Wisc Adm Code.

In addition, we are providing with these comment responses Preventative Action Levels (PALs) for alkalinity, hardness, lithium, pH, and specific conductance (**Table 1**) calculated using analytical results from baseline sampling completed in 2023 and submitted to WDNR in June and December 2023. All calculations were completed in accordance with the methodology presented in WDNR publication PUB-WA 1105. Specifically, PALs were calculated as follows; all calculated values were rounded up to two significant figures:

- For alkalinity and hardness, the selected PAL is the higher of the mean plus three times the standard deviation or the mean plus the minimum increase specified in Table 3 of Ch. NR 140, Wisconsin (Wis) Administrative (Adm) Code
- For lithium, the PAL was calculated as the mean plus three times the standard deviation in accordance with Ch. NR 507.18(5)(d), Wis Adm Code, and rounded up to the laboratory reporting limit if the calculated PAL was less than the reporting limit
- For pH and field temperature, PALs were calculated in accordance with Ch. NR 140.20(2)(a) and (b), Wis Adm Code, respectively; lower field temperature limits were set at 0.0 degrees Celsius if the calculated lower limit was less than 0.0 degrees

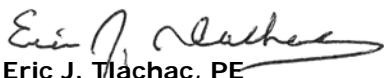
All sample analyses were completed by laboratories certified by WDNR using acceptable methods that are the basis of the certification. Data were evaluated for outliers via the Grubb's¹ test, but not excluded from the PAL calculations unless there was corroborating evidence (e.g., apparent sampling or analysis error) that the outlier result was not representative of actual field conditions or the outlier increased the PAL by greater than 20 percent.

¹ Grubbs, F. E. Procedures for detecting outlying observations in samples. *Technometrics* 11, 1–21 (1969).

No additional ACLs beyond those referenced in Section 4.6 of the ESAP Addendum are requested because the parameters for which baseline sampling was completed in 2023 are either indicator parameters, as defined in Ch. NR 140.20, Wisc Adm Code, or PALs are specified by Ch. NR 507.18(5)(d), Wis Adm Code, to be calculated in a similar manner (lithium).

We sincerely appreciate this continued opportunity to support WEC Energy Group with CCR Initial Permitting for the WDS3 Ash Landfill. If you have any questions or comments on the above responses, please contact us.

Sincerely,



Eric J. Tlachac, PE
Senior Project Manager

D +1 414 837 3541
M +1 262 719 4526
eric.tlachac@ramboll.com



Nathaniel R. Keller, PG
Senior Technical Manager

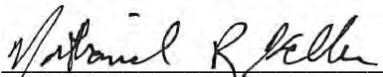
M +1 262 424 6560
nate.keller@ramboll.com

- Enclosures:
- Licensed Professional Certifications**
 - Groundwater Elevation Contour Map** – June 7, 2023
 - Groundwater Elevation Contour Map** – September 20, 2023
 - Groundwater Elevation Contour Map** – October 30, 2023
 - Attachment A** - Lines of Evidence Supporting that the Weston Disposal Site No. 3 Ash Landfill Is Not the Source of Elevated Boron Concentrations at Monitoring Well LS-106
 - Table 1** – Calculated Preventative Action Limits

LICENSED PROFESSIONAL CERTIFICATIONS

LICENSED PROFESSIONAL CERTIFICATIONS

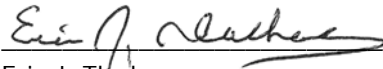
I, Nathaniel R. Keller, hereby certify that I am a licensed professional geologist in the State of Wisconsin in accordance with the requirements of Ch. GHSS 2, Wis. Adm. Code; that the preparation of this document has not involved any unprofessional conduct as detailed in Ch. GHSS 5, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chs. NR 500 to 538, Wis. Adm. Code.



Nathaniel R. Keller
Professional Geologist
1283-13
Wisconsin
Date: August 23, 2024



I, Eric J. Tlachac, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of Ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in Ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chs. NR 500 to 538, Wis. Adm. Code.

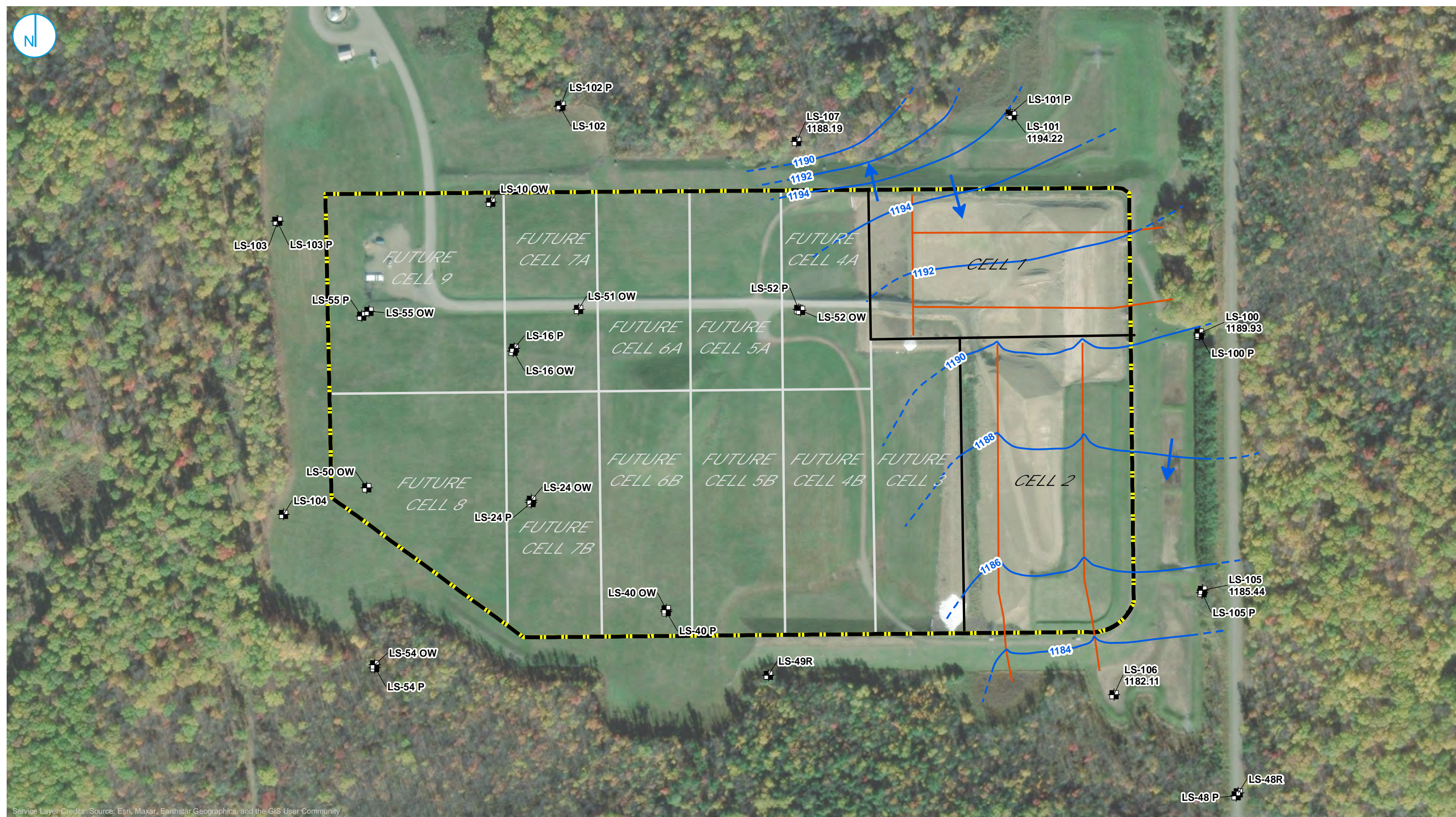


Eric J. Tlachac
Professional Engineer
36088-6
Wisconsin
Date: August 23, 2024



GROUNDWATER ELEVATION CONTOUR MAPS

Y:\GIS\Projects\161660\Weston_Power_Plant\XWD\GEMS\Figure_1_Potentiometric_Surface_20230607.mxd
 PROJECT: 71202 | DATED: 7/26/2024 | DESIGNER: STOLZSD



- MONITORING WELL OR PIEZOMETER LOCATION
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- - - INFERRED GROUNDWATER ELEVATION CONTOUR
- ➔ GROUNDWATER FLOW DIRECTION

- GROUNDWATER GRADIENT CONTROL SYSTEM
- ▭ WESTON DISPOSAL SITE NO. 3 LANDFILL
- ▭ CELL BOUNDARY

Notes
 1. GROUNDWATER ELEVATIONS IN FEET NORTH AMERICAN VERTICAL DATUM OF 1988 (FT NAVD88)
 2. GROUNDWATER ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING



**POTENTIOMETRIC SURFACE MAP
 JUNE 7, 2023**

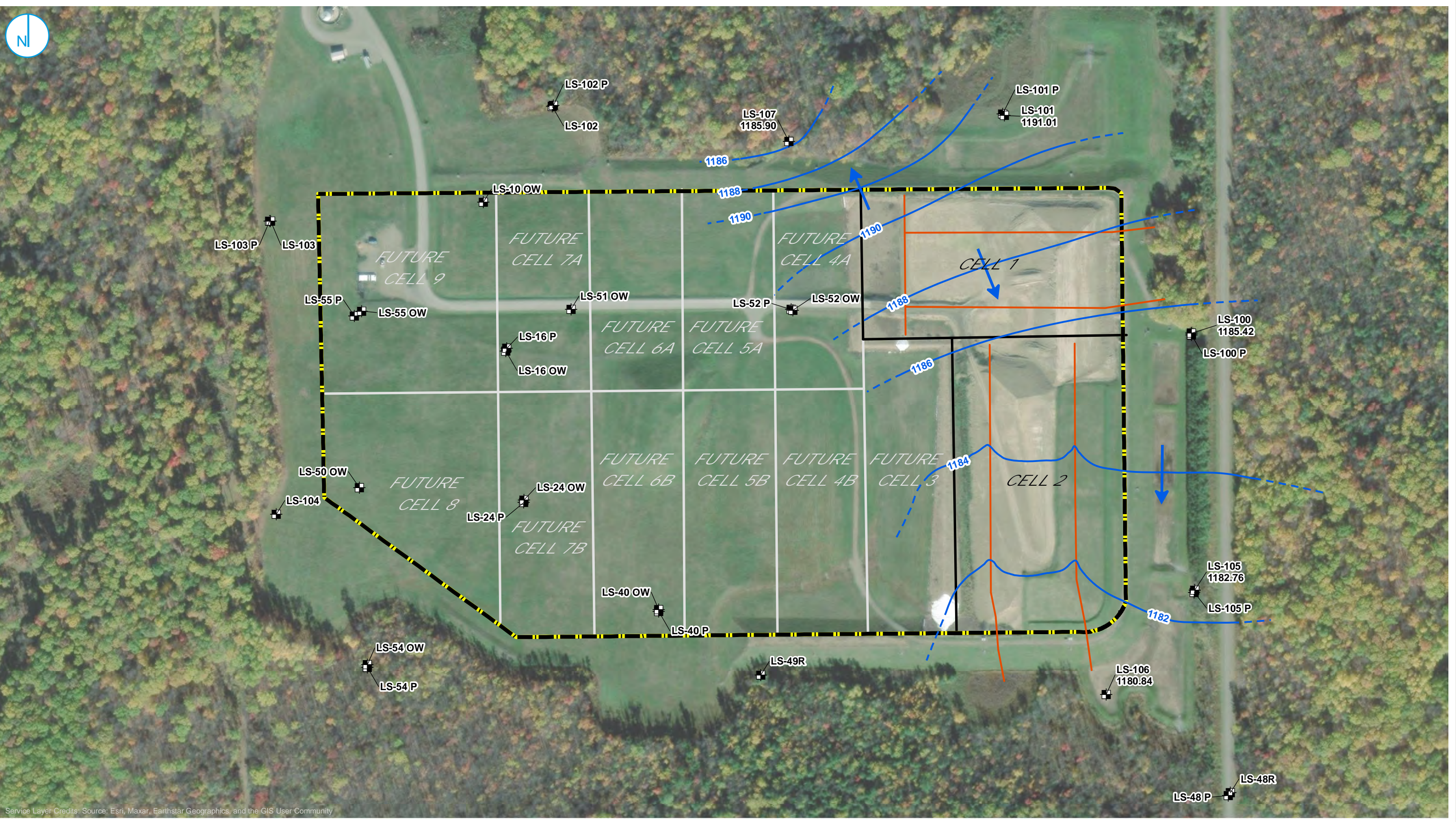
**WESTON DISPOSAL SITE NO. 3 LANDFILL
 TOWN OF KNOWLTON, WISCONSIN**

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

PROJECT: 71202 | DATED: 7/26/2024 | DESIGNER: STOLZSD



- MONITORING WELL OR PIEZOMETER LOCATION
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER GRADIENT CONTROL SYSTEM
- WESTON DISPOSAL SITE NO. 3 LANDFILL
- CELL BOUNDARY

Notes
 1. GROUNDWATER ELEVATIONS IN FEET NORTH AMERICAN VERTICAL DATUM OF 1988 (FT NAVD88)
 2. GROUNDWATER ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING



**POTENTIOMETRIC SURFACE MAP
 SEPTEMBER 20, 2023**

**WESTON DISPOSAL SITE NO. 3 LANDFILL
 TOWN OF KNOWLTON, WISCONSIN**

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



- MONITORING WELL OR PIEZOMETER LOCATION
- GROUNDWATER GRADIENT CONTROL SYSTEM
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD 88)
- WESTON DISPOSAL SITE NO. 3 LANDFILL
- INFERRED GROUNDWATER ELEVATION CONTOUR
- CELL BOUNDARY
- GROUNDWATER FLOW DIRECTION

Notes
 1. GROUNDWATER ELEVATIONS IN FEET NORTH AMERICAN VERTICAL DATUM OF 1988 (FT NAVD88)
 2. GROUNDWATER ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING



**POTENTIOMETRIC SURFACE MAP
 OCTOBER 30, 2023**

**WESTON DISPOSAL SITE NO. 3 LANDFILL
 TOWN OF KNOWLTON, WISCONSIN**



ATTACHMENT A

TECHNICAL MEMORANDUM

To: Eric Kovatch, WEC Energy Group – Business Services
From: Eric Tlachac and Nate Keller
cc:
Re: Lines of evidence supporting that the Weston Disposal Site No. 3 Ash Landfill is not the source of elevated boron concentrations at monitoring well LS-106

The following lines of evidence (LOEs) demonstrate that the Weston Disposal Site No. 3 (WSD3) Ash Landfill is not the source of elevated boron concentrations at monitoring well LS-106:

August 23, 2024

1. Presence of a groundwater gradient control system, composite liner, and leachate collection system
2. The ionic composition of groundwater samples from LS-106 is similar to that of background groundwater and distinct from that of WSD3 leachate
3. Sampling bias due to the presence of iron bacteria

Ramboll
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 Fifth Floor
 Milwaukee, WI 53204
 USA

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 F 414-837-3608
www.ramboll.com

Concentrations of boron greater than the Ch. NR 140, Wisconsin Administrative Code (Wisc Adm Code), Preventative Action Level (PAL) of 0.2 milligrams per liter (mg/L) have been occasionally observed in monitoring well LS-106.

Ref. 1940102327

Additional information pertaining to these LOEs is provided below.

LOE #1: Presence of a Groundwater Gradient Control System, Composite Liner, and Leachate Collection System

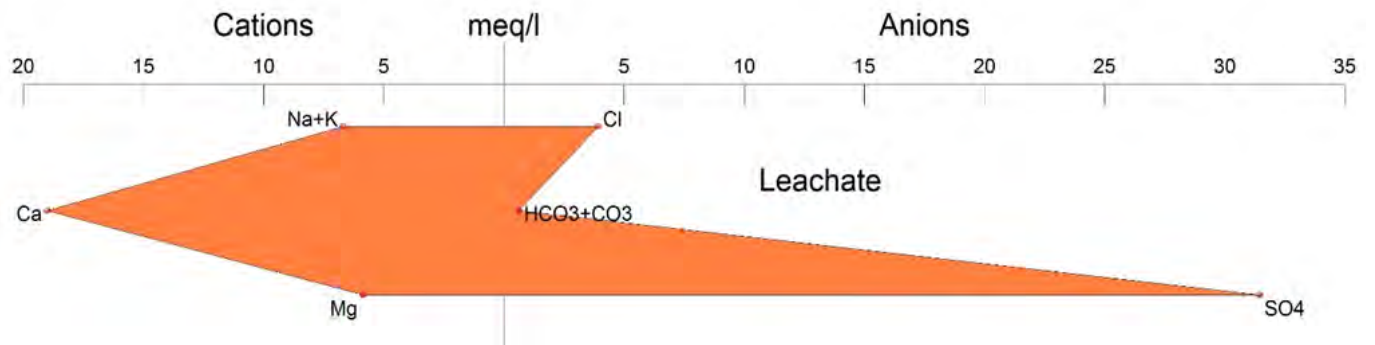
As stated in Section 5.3 of the Plan of Operation Modification submitted December 19, 2023, WSD3 has a groundwater gradient control system beneath the base liner system consisting of a one-foot thick layer of select granular fill having a minimum hydraulic conductivity of 1×10^{-3} cm/sec with a network of perforated- and solid-wall six-inch diameter, standard dimension ratio (SDR) 11 high-density polyethylene (HDPE) or Schedule 80 polyvinyl chloride (PVC) drainage pipe bedded in two-foot wide collection trenches filled with gravel meeting the Ch. NR 504, Wisc Adm Code, requirements for leachate collection systems and wrapped in geotextile filter fabric.

As stated in Section 5.4 of the Plan of Operation Modification submitted December 19, 2023, WSD3 also has a base liner system is comprised of a two-foot thick compacted clay layer having a maximum hydraulic conductivity of 1×10^{-7} cm/sec, geosynthetic clay liner with a hydraulic conductivity of 5×10^{-9} cm/sec, 60-mil textured high-density polyethylene (HDPE) geomembrane, 12-ounce per square yard nonwoven geotextile cushion layer placed in leachate collection system pipe trenches, and a one-foot thick leachate collection layer meeting the requirements of Ch. NR 504.06(5)(a), Wisc Adm Code.

The groundwater gradient control system will divert groundwater away from the base liner system when elevations are high enough to encounter the gradient control system, and the base liner system will create a barrier between leachate and groundwater and minimize leachate levels within the landfill to limits specified by Ch. NR 504.06(5)(a), Wisc Adm Code.

LOE #2: The Ionic Composition of Groundwater Samples From LS-106 Are Similar to That of Background Groundwater And Distinct From That of WSD3 Leachate

The Stiff diagrams on the following page (**Figure A**) depict ionic composition of samples of background (brown) and downgradient (blue) groundwater collected in October 2023 and WSD3 leachate (orange) collected from the leachate tank in 2017. Dominant anions in the WSD3 Landfill leachate are chloride and sulfate and the dominant cation is calcium. The resulting Stiff diagram for WSD3 leachate is different in both overall shape and size from the Stiff diagrams for background and downgradient groundwater due to the pronounced presence of calcium and sulfate in the leachate diagram. The Stiff diagrams indicate that the ionic composition of groundwater is not influenced by WSD3 leachate.



WDS3 - October 2023

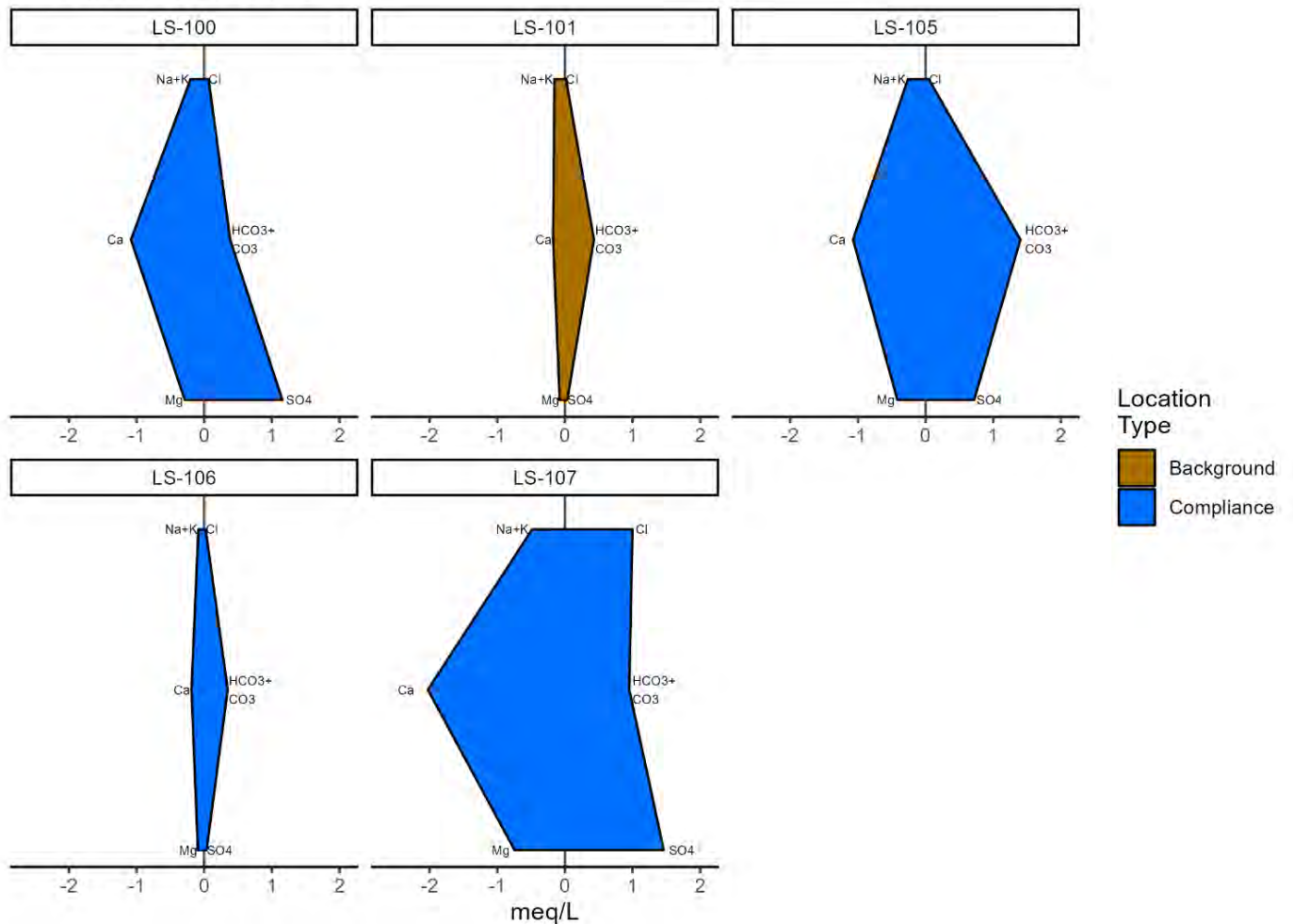


Figure A. Stiff Diagrams of WDS3 Landfill Leachate and Groundwater

LOE#3: Sampling Bias Due to the Presence of Iron Bacteria

Field observations during purge and sampling of monitoring well LS-106 have identified rust-colored precipitation from iron bacteria in groundwater obtained from this well. Similar observations have been made in surface water in this area of WDS3 (east side and southeast corner) when groundwater elevations have been high enough to cause groundwater seeps and related surface water flow (see the attached memorandum). The precipitation is an iron hydroxide, to which boron is known to adsorb in aqueous solutions^{1,2}, and there are naturally occurring trace concentrations of boron in the background groundwater; the calculated upper prediction limit concentration is 0.043 mg/L. These iron hydroxide precipitates dissolve into the samples collected for analysis of total metals as the samples are acidified for preservation in accordance with sampling and analysis methods approved by the United States Environmental Protection Agency (USEPA) and Wisconsin Department of Natural Resources (WDNR). The iron hydroxide precipitates and sorbed boron elevate the concentrations of iron and boron in groundwater samples, as demonstrated by the comparison of total and dissolved boron concentrations in **Figure B** on the following page. Dissolved concentrations are lower because they are filtered in the field, which prevents the majority of the iron hydroxide precipitate and sorbed boron from entering the sample.

¹ Goldberg, S., Glaubig, R.A., 1985, Boron Adsorption on Aluminum and Iron Oxide Minerals, Soil Science Society of America Journal, November-December 1985, pp. 1374-1379.

² Demetriou, A., Pashalidis, I., 2012, Adsorption of Boron on Iron-Oxide in Aqueous Solutions, Desalination and Water Treatment, Volume 37, Issues 1-3, pp. 315-320.

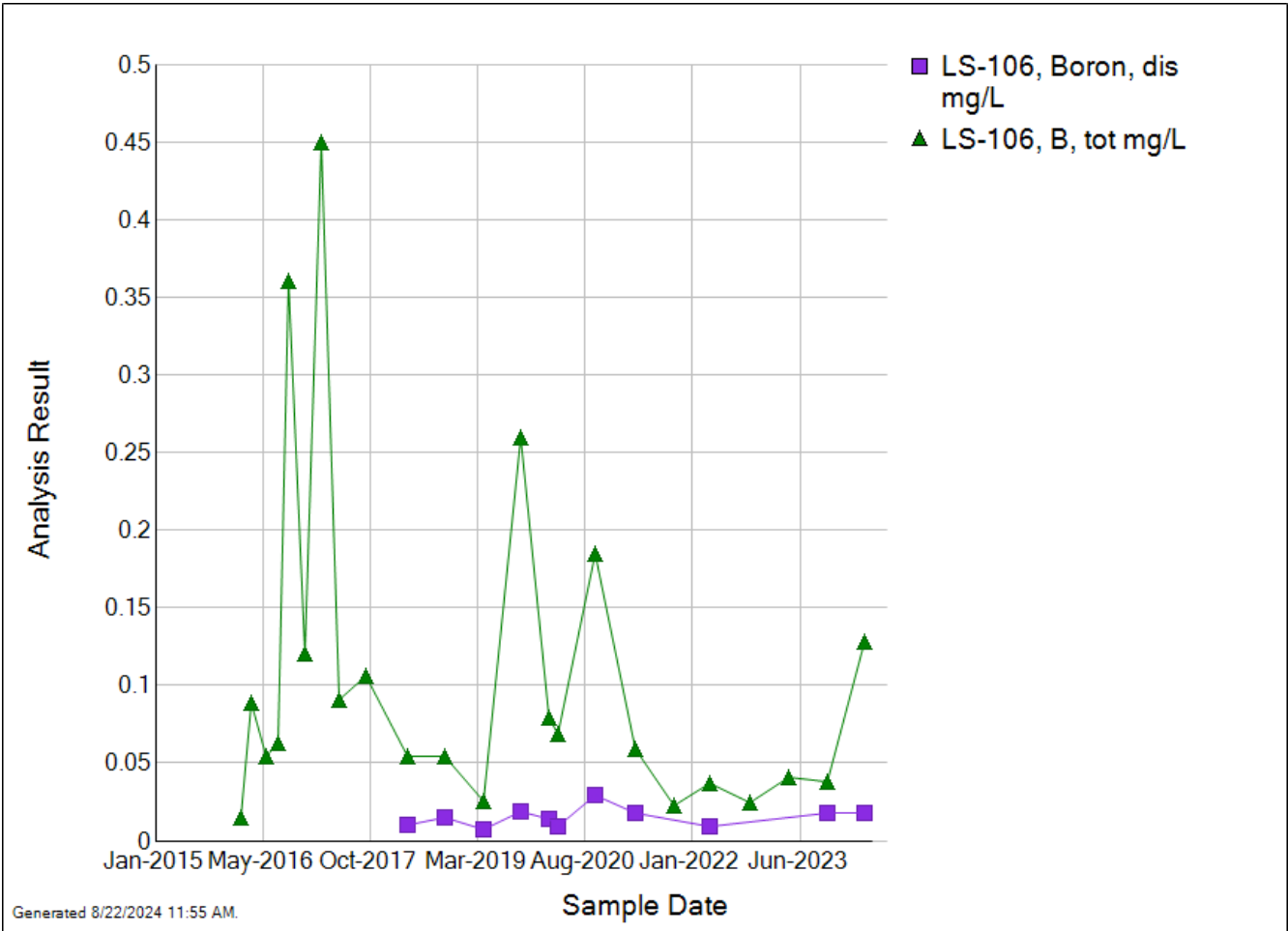


Figure B. Total and dissolved boron concentrations observed at LS-106.

Attachment

Memorandum: WSD3 Landfill Complaint – Legner Road Sheen, June 24, 2019

ATTACHMENT

TO: Tom Jansen, PE – WEC Energy Group
Business Services (representing
Wisconsin Public Service)

FROM: Nate Keller, PG – OBG, Part of Ramboll

RE: WDS3 Landfill Complaint – Legner
Road Sheen

DATE: June 24, 2019

Cc: Tim Muehlfeld, PE – WEC Energy Group
Business Services
Glenn Luke, PE - OBG

BACKGROUND AND OBJECTIVES

On May 24, 2019 Wisconsin Public Service (WPS) was notified of a complaint received by the Wisconsin Department of Natural Resources (WDNR) regarding the Weston Disposal Site No. 3 Landfill (WDS3, Site) (Figure 1) in the Town of Knowlton, WI. A citizen reported that water in the drainage ditch along Legner Road, adjacent to the WDS3 property, appeared to be discolored and a sheen was present on the surface of standing water in the ditch. Carson Pethan of Riverview Construction (the landfill operator) visited the site with WDNR Conservation Warden Joshua Litvinoff on May 24, 2019 to evaluate the complaint. While onsite, Carson identified the locations of concern, collected photographic documentation (Attachment 1) and qualitative water samples to evaluate staining and sheen observed in the drainage ditch.

The purpose of this memorandum is to summarize the information collected to evaluate the complaint and document that the discolored surfaces and vegetation in the water and sheen is a result of natural high groundwater table, which produces wetland conditions that contain standing water and iron bacteria. The source of the sheen and discoloration is naturally occurring, and not indicative of a release from WDS3.

RESULTS OF INVESTIGATION

The photographs included in Attachment 1 illustrate the staining and sheen observed in the water accumulated in the drainage areas near the southeast corner of the Site. To evaluate whether WDS3 was a source of the observed staining and sheen a sample was collected from the groundwater gradient control system. The standing water within the drainage ditch was not sampled because the limited depth of water made sampling without disturbing the underlying soil unfeasible and recent rainfall may have resulted in runoff from Legner Road accumulating in the drainage ditch.

WDS3 has a leachate control system and groundwater gradient control system which lowers the water table under the landfill so that groundwater does not come in contact with the liner. Leachate from within the landfill and above the liner is collected and managed in accordance with the Plan of Operation. Regular groundwater monitoring is performed in compliance with the WDNR and federal (CCR Rule) rules. There is no evidence that leachate is being released from the landfill, however, if migration occurred the groundwater gradient control system would provide evidence that a release occurred since it collects groundwater immediately below the liner. The discharge pipe from the groundwater gradient control system was sampled on May 28, 2019 by a technician from Robert E. Lee & Associates and analyzed for iron, manganese, diesel range organics (DRO), and gasoline range organics (GRO) to determine if WDS3 was a potential source for the observed sheen and staining. The results are provided in Attachment 2.

The laboratory test results from Pace Analytical had no detections of DRO or GRO thus indicating that the observed sheens were not related to petroleum impacts. The concentration of iron and manganese (2.37 and 3.1 mg/L, respectively) indicate that there is iron present at concentrations in the water which promotes the growth of iron bacteria.

SUMMARY OF GROUNDWATER ELEVATIONS AND FLOW DIRECTION

The groundwater flow direction in the southeast area of the Site is generally to the south and groundwater elevations are below the land surface. Following increased precipitation in April and May, 2019, the groundwater elevations increased and there was a component of groundwater flow to the southeast toward Legner Road. Groundwater seeps appeared along Legner Road where the land surface elevation dips below the groundwater elevation (Figure 1).

Groundwater samples collected from LS-105, which is located near the observed staining and sheens, have been analyzed for coal combustion residual indicator parameters since the landfill was constructed. Results from the samples have not indicated that a release has occurred from the landfill (Attachment 3). Based on the lack of impact, the occurrence of staining and sheens in the groundwater seeps is unrelated to the landfill.

ADDITIONAL EVIDENCE

Iron bacteria and the resulting orange/brown slime and sheens they create are well documented and their occurrence widespread throughout the U.S. The State of Wisconsin has acknowledged the occurrence of iron bacteria in a publication for water wells in Wisconsin (WDNR, PUB-DG-004-2015):

Detecting iron bacteria

Water containing iron bacteria can have a red, yellow or orange color and can produce an oily sheen on the surface. The water may have an odor that resembles rotten eggs, fuel oil, cucumber or occasionally even sewage. The smell may be noticeable only in the morning or after long periods of time when the well has not been used. You may also notice slimy chunks of material on faucet screens or in your bathtub. If the water yield of your well decreases unexplainably, it may be the result of a significant growth of iron bacteria and the slimes they produce.

A quick and easy way to check for the presence of iron and other slime-producing bacteria is to look in the water closet tank of your toilet. If you see an oily sheen on the surface of the water and can feel a slimy residue on the inside of the tank, at the air/water interface, slime-producing bacteria are likely present in your water system.

The State of Minnesota (Minnesota Pollution Control Agency) has developed a publication for concerned citizens, to help them identify these sheens in surface water to reduce the number of reports they receive (Attachment 4).

Each year the Minnesota Pollution Control Agency (MPCA) receives calls from concerned citizens who have discovered apparent color sheens on water in ditches, ponds, wetlands, lakes and other areas with stagnant, standing water.

Often these sheens have an iridescent or rainbow-like appearance similar to what one sees when a small amount of oil, gasoline or other petroleum product is spilled on water. In some cases, a reddish precipitate can be seen also in the water where these sheens occur.

If there is no obvious source of petroleum that could have been spilled, the sheen may be an organic nonpetroleum, or humic, sheen caused by bacteria.

Both of these publications describe the observation made at the Site regarding the staining and sheens. Tom Jansen visited the Site on May 28, 2019 with Carson Pethan and observed that when the pools of water with sheens were agitated, the sheens were brittle and would break up and not immediately coalesce into a single sheen. The sheens fractured into geometric shapes and did not react like sheens from petroleum which have a continuous fluid-like quality and quickly recombine after agitation. Jansen visited the site again on June 4, 2019 with Sally Hronek from WDNR and observed the same conditions.

CONCLUSION

Based on the samples collected, the groundwater information, field observations and the supporting evidence, the source of the staining and sheens is related to iron bacteria and there has not been a release from WDS3.

FIGURES

Figure 1 Observation and Groundwater Monitoring Locations

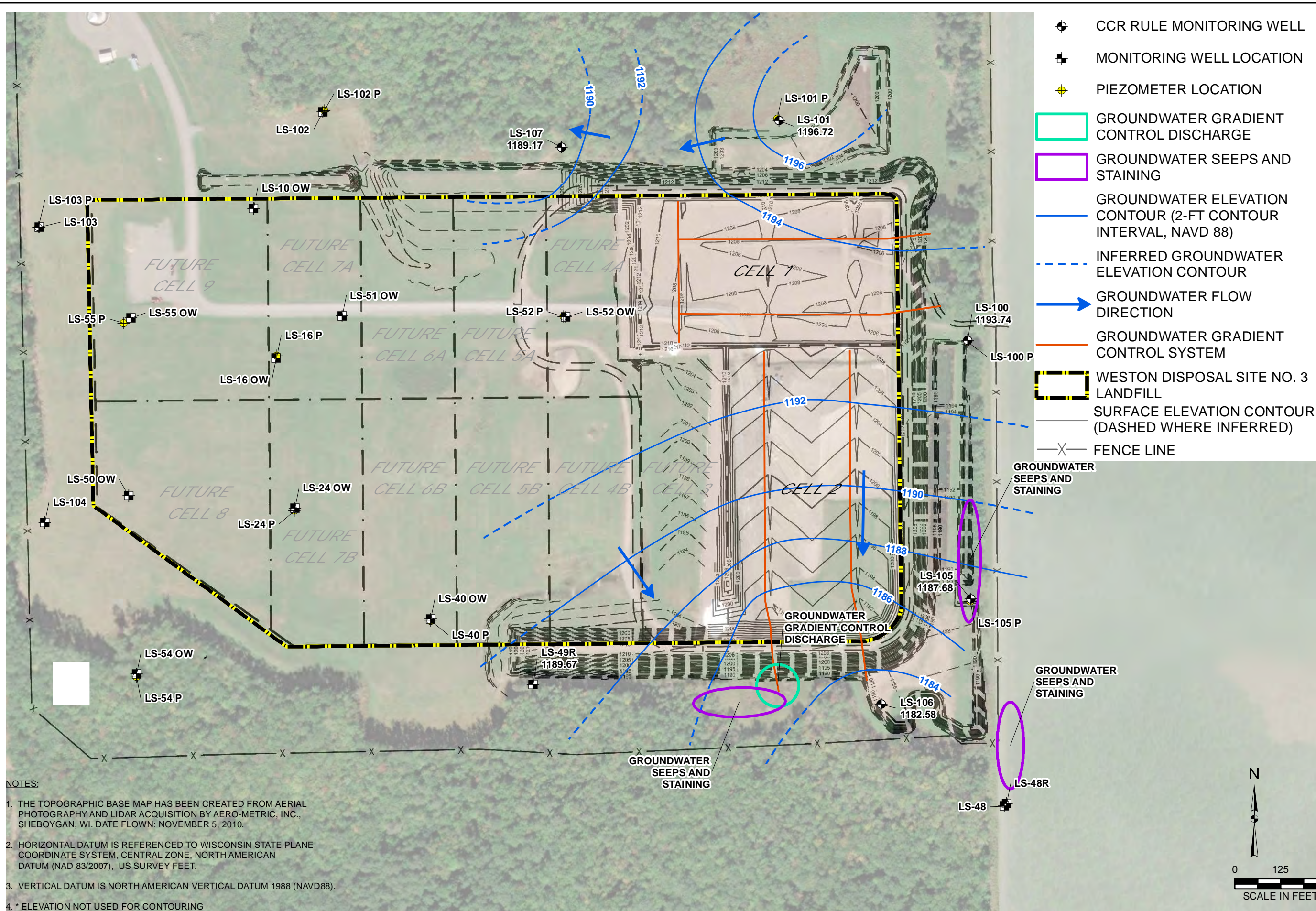
ATTACHMENTS













- Attachment 1 Photographic Log of Groundwater Discharge Areas
- Attachment 2 Analytical Report for Groundwater Gradient Control Sample
- Attachment 3 WDS3 CCR Rule- Appendix III Groundwater Results
- Attachment 4 Publications with Additional Evidence of Inorganic Sheens



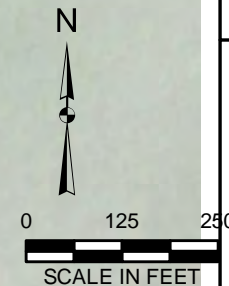
Figures

Y:\GIS\Projects\161660\Weston_Power_Plant\MapDocs\TechMemo\Figure_1_GW_Contours_201804.mxd Author: GalenMC Date: 6/17/2019 12:54:28 PM



-  CCR RULE MONITORING WELL
-  MONITORING WELL LOCATION
-  PIEZOMETER LOCATION
-  GROUNDWATER GRADIENT CONTROL DISCHARGE
-  GROUNDWATER SEEPS AND STAINING
-  GROUNDWATER ELEVATION CONTOUR (2-FT CONTOUR INTERVAL, NAVD 88)
-  INFERRED GROUNDWATER ELEVATION CONTOUR
-  GROUNDWATER FLOW DIRECTION
-  GROUNDWATER GRADIENT CONTROL SYSTEM
-  WESTON DISPOSAL SITE NO. 3 LANDFILL
-  SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
-  FENCE LINE

- NOTES:**
1. THE TOPOGRAPHIC BASE MAP HAS BEEN CREATED FROM AERIAL PHOTOGRAPHY AND LIDAR ACQUISITION BY AERO-METRIC, INC., SHEBOYGAN, WI. DATE FLOWN: NOVEMBER 5, 2010.
 2. HORIZONTAL DATUM IS REFERENCED TO WISCONSIN STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM (NAD 83/2007), US SURVEY FEET.
 3. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
 4. * ELEVATION NOT USED FOR CONTOURING



DRAWN BY/DATE:
MPG 6/13/19
REVIEWED BY/DATE:
JJW 6/13/19
APPROVED BY/DATE:
NRK 6/13/19

**WESTON DISPOSAL SITE NO. 3
UPPERMOST AQUIFER UNIT
TECHNICAL MEMORANDUM - WDS3 COMPLAINT LEGNER RD SHEEN
GROUNDWATER ELEVATION CONTOUR MAP
2ND QUARTER 2018: APRIL 26, 2018
ALTERNATE SOURCE DEMONSTRATION
WESTON DISPOSAL SITE NO. 3
TOWN OF KNOWLTON, WISCONSIN**



PROJECT NO: 67985
FIGURE NO: 1








Attachments


ATTACHMENT 1- PHOTOGRAPHIC LOG

CLIENT NAME: WPSC		SITE LOCATION: WDS3		PROJECT NO. 71202
PHOTO NO. 1	DATE: 05/24/2019			
DESCRIPTION Gradient control discharge, looking east				
CLIENT NAME: WPSC		SITE LOCATION: WDS3		PROJECT NO. 71202
PHOTO NO. 2	DATE: 05/24/2019			
DESCRIPTION Groundwater gradient control, looking south.				

CLIENT NAME: WPSC		SITE LOCATION: WDS3	PROJECT NO. 71202
PHOTO NO. 3	DATE: 05/24/2019		
DESCRIPTION Groundwater gradient control pipe discharge.			

CLIENT NAME: WPSC		SITE LOCATION: WDS3	PROJECT NO. 71202
PHOTO NO. 4	DATE: 05/24/2019		
DESCRIPTION Legner Road and the drainage from groundwater seeps on east side of WDS3.			

CLIENT NAME: WPSC		SITE LOCATION: WDS3	PROJECT NO. 71202
PHOTO NO. 5	DATE: 05/24/2019		
DESCRIPTION Groundwater seeps on east side of WDS3, looking west.			

CLIENT NAME: WPSC		SITE LOCATION: WDS3	PROJECT NO. 71202
PHOTO NO. 6	DATE: 05/24/2019		
DESCRIPTION Inorganic sheen near east side of WDS3.			



Attachment 2

June 03, 2019

Tom Jansen
WE Energies
333 W Everett St
Milwaukee, WI 53203

RE: Project: 5484-032 REL WDS #3 SW+OUTFALL
Pace Project No.: 40188456

Dear Tom Jansen:

Enclosed are the analytical results for sample(s) received by the laboratory on May 29, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Cody Applekamp, Robert E Lee & Associates, Inc.
Nate Keller, OBG



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40188456001	OUTFALL GCL	Water	05/28/19 16:05	05/29/19 09:45
40188456002	POOL GCL	Water	05/28/19 16:25	05/29/19 09:45
40188456003	DITCH	Water	05/28/19 16:55	05/29/19 09:45

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SAMPLE ANALYTE COUNT

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40188456001	OUTFALL GCL	WI MOD DRO	CAH	1
		WI MOD GRO	ALD	2
		EPA 6010	TXW	2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

Sample: OUTFALL GCL **Lab ID: 40188456001** Collected: 05/28/19 16:05 Received: 05/29/19 09:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS									
Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO									
Diesel Range Organics	<0.015	mg/L	0.049	0.015	1	05/30/19 14:30	06/03/19 09:58		
WIGRO GCV									
Analytical Method: WI MOD GRO									
Gasoline Range Organics	<36.3	ug/L	121	36.3	1		05/31/19 10:04		
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		05/31/19 10:04	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	2370	ug/L	246	73.9	1	05/30/19 07:17	05/30/19 16:18	7439-89-6	
Manganese	3100	ug/L	5.1	1.5	1	05/30/19 07:17	05/30/19 16:18	7439-96-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 5484-032 REL WDS #3 SW+OUTFALL
Pace Project No.: 40188456

QC Batch: 322903 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40188456001

METHOD BLANK: 1875473 Matrix: Water
Associated Lab Samples: 40188456001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	<36.3	121	05/31/19 08:27	
a,a,a-Trifluorotoluene (S)	%	103	80-120	05/31/19 08:27	

LABORATORY CONTROL SAMPLE & LCSD: 1875474

Parameter	Units	1875475									
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
Gasoline Range Organics	ug/L	200	184	185	92	92	80-120	0	20		
a,a,a-Trifluorotoluene (S)	%				102	101	80-120				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1875753 1875754

Parameter	Units	1875753										1875754	
		40188456001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Gasoline Range Organics	ug/L	<36.3	200	200	176	181	88	91	80-120	3	20		
a,a,a-Trifluorotoluene (S)	%						101	102	80-120				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

QC Batch: 322748	Analysis Method: EPA 6010
QC Batch Method: EPA 3010	Analysis Description: 6010 MET
Associated Lab Samples: 40188456001	

METHOD BLANK: 1874601 Matrix: Water
Associated Lab Samples: 40188456001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	<73.9	246	05/30/19 15:32	
Manganese	ug/L	<1.5	5.1	05/30/19 15:32	

LABORATORY CONTROL SAMPLE: 1874602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	5000	5110	102	80-120	
Manganese	ug/L	500	503	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1874603 1874604

Parameter	Units	40188348002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	ug/L	<0.074 mg/L	5000	5000	4980	5080	99	101	75-125	2	20	
Manganese	ug/L	0.0054 mg/L	500	500	496	506	98	100	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

QC Batch:	322821	Analysis Method:	WI MOD DRO
QC Batch Method:	WI MOD DRO	Analysis Description:	WIDRO GCS
Associated Lab Samples:	40188456001		

METHOD BLANK: 1874809 Matrix: Water
Associated Lab Samples: 40188456001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/L	<0.015	0.052	06/03/19 09:49	

LABORATORY CONTROL SAMPLE & LCSD: 1874810

1874811

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/L	1	0.87	0.86	87	86	75-115	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5484-032 REL WDS #3 SW+OUTFALL

Pace Project No.: 40188456

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40188456001	OUTFALL GCL	WI MOD DRO	322821	WI MOD DRO	322884
40188456001	OUTFALL GCL	WI MOD GRO	322903		
40188456001	OUTFALL GCL	EPA 3010	322748	EPA 6010	322866

REPORT OF LABORATORY ANALYSIS

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Sample Preservation Receipt Form

Client Name: Robert E. Lee

Project # 10053581

All containers needing preservation have been checked and noted below: Yes No N/A

Lab Lot# of pH paper: 10053581 Lab Std #/ID of preservation (if pH adjusted):


Initial when completed: MSC

Date/Time:

Pace Lab #	Glass						Plastic						Vials				Jars			General			VOA Vials (>6mm) *			pH			Volume (ml)							
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	H2SO4 pH <2	NaOH+Zn Act pH ≥9		NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted				
001																																				
002		1											1					3																		2.5/5/10
003			1																																	2.5/5/10
004																																				2.5/5/10
005																																				2.5/5/10
006																																				2.5/5/10
007																																				2.5/5/10
008																																				2.5/5/10
009																																				2.5/5/10
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016																																				2.5/5/10
017																																				2.5/5/10
018																																				2.5/5/10
019																																				2.5/5/10
020																																				2.5/5/10

Exceptions to preservation check: VOA Coliform, TOC, TOX, TOH, O&G, MDRG, Phenolics, Other: _____


AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN:
1 liter amber glass	1 liter amber glass HCL	125 mL amber glass H2SO4	120 mL amber glass unpres	100 mL amber glass unpres	500 mL amber glass H2SO4	250 mL clear glass unpres	1 liter plastic unpres	500 mL plastic HNO3	500 mL plastic NaOH, Znact	250 mL plastic unpres	250 mL plastic NaOH	250 mL plastic HNO3	250 mL plastic H2SO4	40 mL amber ascorbic	40 mL amber Na Thio	40 mL clear vial unpres	40 mL clear vial HCL	40 mL clear vial MeOH	40 mL clear vial DI	4 oz amber jar unpres	4 oz clear jar unpres	4 oz plastic jar unpres	120 mL plastic Na Thiosulfate	ziploc bag	

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Robert E Lee

Project # **WO# : 40188456**



40188456

Courier: CS Logistics Fed Ex Speedee UPS Walto
 Client Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR - N/A **Type of Ice:** Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROI /Corr: _____

Temp Blank Present: yes no **Biological Tissue is Frozen:** yes no

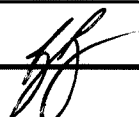
Person examining contents: Date: <u>05/29/19</u> Initials: <u>MSC</u>
--

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. <u>MSC 05/29/19</u>
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Missing Client name</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: _____



Date: 5-29-19



Attachment 3

Weston Disposal Site No. 3 Landfill
Table 2. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2017 to 10/25/2018

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-100	10/11/2017	40158568002	0.0559	11.000	0.860	<0.100	6.270	15.700
	04/26/2018	40168127002	0.0292	6.550	0.720	<0.100	6.970	13.100
	10/25/2018	AE31422	0.0250	11.000	0.290	0.066	6.300	17.000
LS-101	10/11/2017	40158568003	0.0138	11.400	0.760	<0.100	5.750	5.900
	04/26/2018	40168127003	<0.0067	4.180	0.540	<0.100	6.450	4.100
	10/25/2018	AE31423	0.0140	3.000	0.400	0.061	6.100	3.100
LS-105	10/11/2017	40158568004	0.0452	18.800	3.600	<0.500	7.240	31.000
	04/26/2018	40168127004	0.0161	18.700	2.600	<0.500	7.430	15.900
	10/25/2018	AE31424	0.0300	20.000	0.740	0.085	6.500	16.000
LS-106	10/11/2017	40158568005	0.1060	15.500	3.600	<0.500	6.580	11.400
	04/26/2018	40168127005	0.0544	6.160	<2.500	<0.500	7.510	<5.000
	10/25/2018	AE31425	0.0540	6.000	0.470	0.066	6.400	3.200
LS-107	10/11/2017	40158568006	0.0143	26.000	6.200	<0.100	6.130	25.500
	04/26/2018	40168127006	0.0097	20.100	3.000	<0.100	6.850	17.500
	10/25/2018	AE31426	0.0170	21.000	2.700	0.065	6.000	26.000

Weston Disposal Site No. 3 Landfill
Table 2. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2017 to 10/25/2018

Well Id	Date Sampled	Lab Id	TDS, mg/L
LS-100	10/11/2017	40158568002	80.000
	04/26/2018	40168127002	82.000
	10/25/2018	AE31422	50.000
LS-101	10/11/2017	40158568003	62.000
	04/26/2018	40168127003	58.000
	10/25/2018	AE31423	44.000
LS-105	10/11/2017	40158568004	100.000
	04/26/2018	40168127004	118.000
	10/25/2018	AE31424	110.000
LS-106	10/11/2017	40158568005	108.000
	04/26/2018	40168127005	88.000
	10/25/2018	AE31425	58.000
LS-107	10/11/2017	40158568006	134.000
	04/26/2018	40168127006	128.000
	10/25/2018	AE31426	120.000



Attachment 4

In months or years following treatment, iron bacteria tend to build up, often in layers of slime. In many cases it is only possible to control severe bacterial infestations rather than completely eradicate them. For these cases, a more aggressive approach involving chemical and mechanical treatment followed by a thorough flushing and shock chlorination is usually necessary.

Only an experienced Licensed Well Driller or Pump Installer should undertake this more aggressive approach of cleaning and disinfecting your well. This is because these processes require special equipment, materials and know-how to prevent them from becoming dangerous.

Whatever process is used, the well should be subsequently flushed in a manner that raises bacterial debris up and out the well but does not force it out into the surrounding geologic formation. (Do not be alarmed if, during the flushing process, thick masses of rust-colored slime come gushing out the well. This means the process is working.)

After the well is treated, cleaned and flushed, it should be shock chlorinated, using a more concentrated chlorine solution along with pH control and the addition of salt. Using this more aggressive approach of treatment, cleaning and disinfection is the best way to prevent these biofilm problems from recurring.

You can also help prevent recurrence of biofilm problems by installing a pellet-chlorination treatment unit on your well. These units are designed to periodically inject a solid chlorine pellet down into the well. This helps prevent bacteria from regaining a foothold. Prior DNR approval is required for these units. Contact your regional DNR office for additional information on these units and the approval process. If you install a pellet chlorinator you may want to include a carbon filter on the water service line to remove any residual chlorine from the water you use. The carbon unit must be approved for this purpose by the Department of Safety and Professional Services. Type "Wisconsin Approved Treatment Devices" into your search engine to find the list of approved devices.

Additional information

For information about other water quality problems, go to dnr.wi.gov, Search: What's wrong with my water? If you have questions regarding iron bacteria or need guidance to properly chlorinate your well, contact a Licensed Well Driller or Pump Installer. To find a list of licensed professionals, go to dnr.wi.gov, Search: Homeowners with Private Wells.

Contact us

Customer Service Staff are here to assist you 7 days a week, 7 a.m. to 10 p.m.

Call Toll Free 1-888-WDNRINFo (1-888-936-7463)

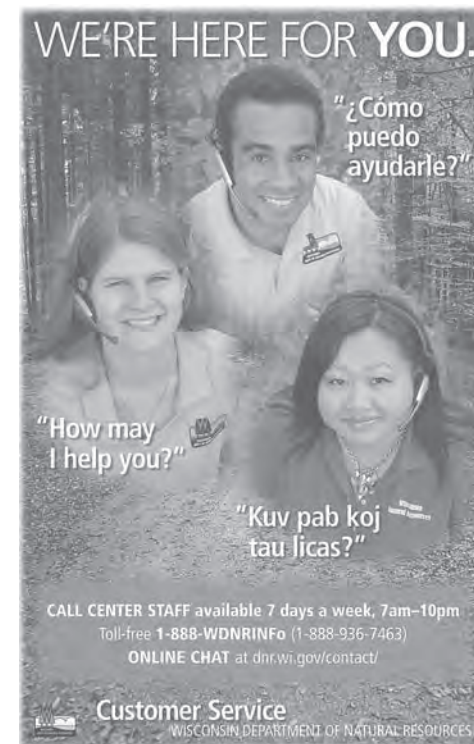
Or, go to dnr.wi.gov, Search: contact

How may we help you?

Chat available from 7 a.m. to 9:45 p.m.

Call a representative 7 a.m. to 10 p.m.

Email your question.



Bilingual Services are available

Central Office

101 S. Webster St.,
P.O. Box 7921
Madison, WI 53707-7921
(608) 266-0821



This brochure was revised by the Wisconsin Department of Natural Resources with assistance from the Education Subcommittee of the Groundwater Coordinating Council.

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Iron Bacteria Problems In Wells

Because water is the universal solvent, groundwater usually has some characteristics of the soil and bedrock it flows through. Iron is one of the most abundant elements in the earth's crust so it is very common in groundwater. You may be familiar with what can happen when there is too much iron in well water – the water often has a metallic taste, a reddish-brown color, stains the laundry and makes poor-tasting coffee.

An equally common but less understood problem is the infestation of a well and water system with iron bacteria. These and similar slime-producing bacteria are a natural part of the environment. They can combine oxygen with iron, manganese or other nutrients in the water and produce a slime that builds up on well screens, pipes, and plumbing fixtures. Wells used infrequently or intermittently tend to be more prone to these problems.

This brochure offers information on the nature of an iron bacteria problem, how you can prevent it and what you can do if it shows up in your water system.

Effects of iron bacteria

Iron bacteria can sometimes be seen as reddish or brown slimy masses on stream bottoms and lakeshores. They often produce an oily sheen on the surface of the water. More serious problems occur when these slimy masses, called biofilms, build up in wells and water systems. These bacteria do not typically pose a health concern but they often create unpleasant and costly problems including:

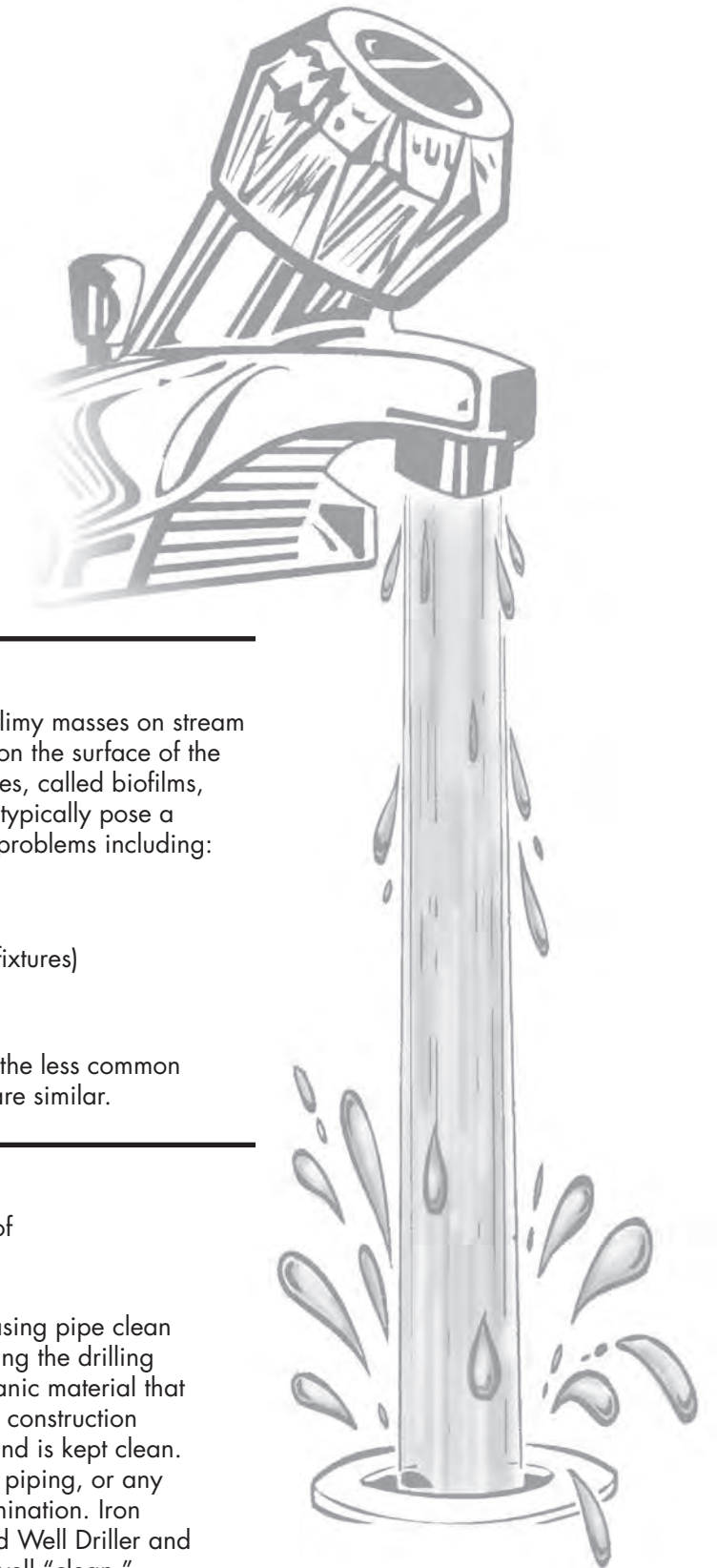
- Odors
- Corrosion of plumbing equipment
- Reduction of well yields (clogged screens, pipes and fixtures)
- Increased infestations of other types of bacteria, including coliform and sulfur reducing bacteria

You may also wish to consult the DNR brochure describing the less common problem of sulfur bacteria, since the causes and remedies are similar.

Preventing iron bacteria during well construction

Because it is difficult to totally rid a well and water system of slime-producing bacteria, prevention is the best safeguard against them and their accompanying problems.

Well Drillers should keep drill bits, pumps and lengths of casing pipe clean and up off the ground. All precautions should be taken during the drilling process to prevent the introduction of these bacteria or organic material that can nourish them. Prevention includes making sure that any construction tool, length of casing pipe or screen that goes into the ground is kept clean. Pump Installers should also make sure that the pump, pump piping, or any other equipment to be installed in the well, is free of contamination. Iron bacteria problems can often be avoided if both the Licensed Well Driller and Pump Installer take adequate precautions to keep the new well "clean."



When construction of a well or the installation of a pump is completed, the well must be test pumped, chlorinated and flushed. Following these procedures, the Well Driller or Pump Installer must collect a sample to be tested for coliform bacteria at a certified lab. If the sample result is negative, the water is considered bacteriologically safe to drink. A negative result is a good indication that proper well construction and pump installation procedures were used. It also means that infestations of iron bacteria are less likely to be a problem in your water system.

Detecting iron bacteria

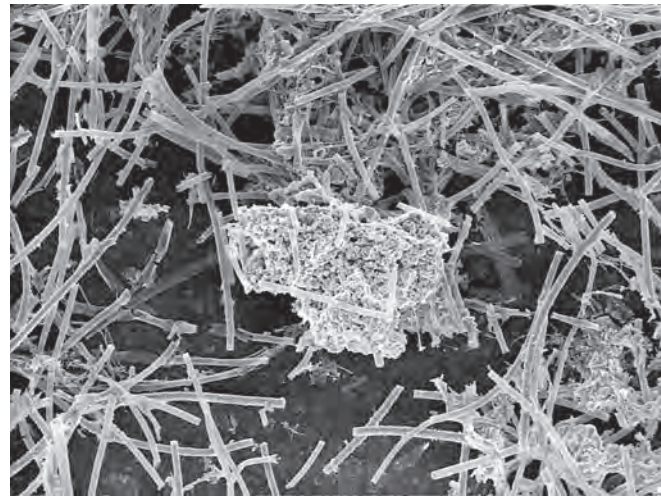
Water containing iron bacteria can have a red, yellow or orange color and can produce an oily sheen on the surface. The water may have an odor that resembles rotten eggs, fuel oil, cucumber or occasionally even sewage. The smell may be noticeable only in the morning or after long periods of time when the well has not been used. You may also notice slimy chunks of material on faucet screens or in your bathtub. If the water yield of your well decreases unexplainably, it may be the result of a significant growth of iron bacteria and the slimes they produce.

If you have reason to suspect these problems, you may wish to have your well treated, cleaned and flushed – as described later in this brochure – before sending a water sample to a laboratory to check for iron bacteria.

A quick and easy way to check for the presence of iron and other slime-producing bacteria is to look in the water closet tank of your toilet. If you see an oily sheen on the surface of the water and can feel a slimy residue on the inside of the tank, at the air/water interface, slime-producing bacteria are likely present in your water system. (If you use a disinfectant in your toilet tank, evidence of these conditions might not be so apparent.) If there are slimy deposits in the tank, you can assume you have a biofilm problem. However, if you wish, you can collect a water sample and send it to a certified laboratory to confirm their presence.

Testing your water for iron bacteria

Some laboratories provide bottles and instructions to allow you to sample for iron bacteria. You may check your local business directory, under "Laboratories – Testing." Upon request you will receive a test kit. Collect the sample in the container provided by the laboratory with water taken directly from the sample tap near your pressure tank. Concentrations of iron bacteria can change constantly because their slime deposits are periodically shed from pipes and fixtures. For this reason, faucet samples should be collected early in the morning or when the water system has been inactive for at least several hours. Laboratory analysis results are usually reported out in two to three weeks.



Microscopic view of iron bacteria.

Photo from *Primer On Microbial Problems In Water Wells*, courtesy of Stuart A. Smith, MS, CGWP.

Treating minor iron bacteria problems

In areas where slime-producing bacteria are a problem, it is important for well owners to be especially alert for signs of their presence. It is much easier to treat these problems early on, before they become severe. For minor infestations owners can periodically chlorinate their well, as necessary. This can be done using department-approved products to make a water/chlorine solution as described below:

Disinfecting your well

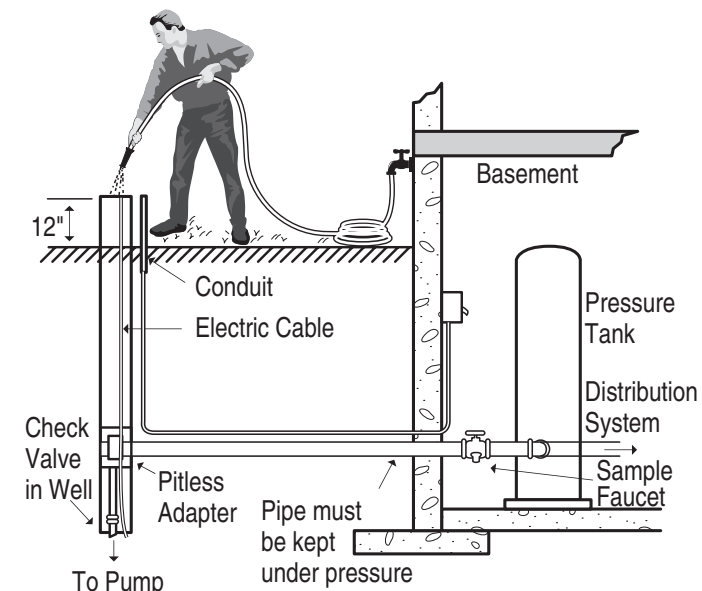
Since knowledge and experience are important, the Department recommends that you hire a Licensed Well Driller or Pump Installer to disinfect your well. However, if you decide to do a standard chlorination yourself, make sure you follow all safety precautions and closely adhere to the following steps:

1. Calculate the volume of water necessary to mix a chlorine solution that will equal or exceed the volume of water standing within the well. (This will help ensure the chlorination will disinfect the entire water column, the well and the geologic formation surrounding it.) You can determine the volume of water standing in your well by first subtracting the depth to the water in the well (static water level) from the total depth of the well. This will give you the height of the standing water column in the well. Then multiply this calculated height of water column by one of the following 'volume factors' – based on the diameter of your well. Each foot of standing water in the well will contain about:

- 8-inch diameter well: 2 1/2 gallons
- 6-inch diameter well: 1 1/2 gallons
- 5-inch diameter well: 1 gallon
- 4-inch diameter well: 2/3 gallon
- 2-inch diameter well: 3/4 quart

(If the total volume of water in the well is not known, 100 gallons is, for most cases, a reasonably good estimate. Most trash cans hold about 30 gallons so filling three new plastic trashcans may be sufficient.)

2. Prepare the chlorine solution by adding approximately a quart of 5.25 % (or a half quart of 10 %) household chlorine bleach per 100 gallons of water you calculated in Step 1. The chlorine product must be free of additives, such as "fresh scent." Thoroughly mix the bleach with the water to make the solution. [Be careful not to breathe the bleach fumes. Also, never combine bleach and ammonia products because doing so will create toxic chlorine gas.]
3. **After turning off the electrical power to the pump**, remove the well cap or seal and pour the entire chlorine solution down the well, in one continuous and rapid pour. **Avoid pouring the solution onto the electrical pump wires.**
4. With the electrical power off, drain and flush the pressure tank and water heater. Then turn the electrical power back on and allow the chlorine solution to refill both tanks. Turn the water heater back on and increase the temperature setting up to 160 degrees, but **only** if the heater has a working pressure relief valve. **Caution: Use your hot water carefully at this scalding temperature setting.**
5. Attach a clean hose to a nearby faucet and place the other end down into the top of the well. Open the faucet connected to the hose and recirculate the chlorinated solution back down the well for about an hour. Make sure you wash down the entire inside of the casing and the exposed pump piping. Open all the faucets in your house until you can detect a chlorine smell. Then close them. This will disinfect the entire plumbing system. It is a good idea to bypass your water softener or any other water treatment unit by closing the valve preceding it. The water softener can be disinfected by adding a 1/4 to 1/2 cup of bleach into the fill



tube of the salt brine tank and activating a manual recharge. You may want to check with your treatment equipment dealer for their advice in this regard.

6. Allow the chlorine solution to remain in the well and water system for at least 24 hours. Then completely purge the solution out of the well and plumbing system until you can no longer smell chlorine. Drain the chlorine solution out of the water heater, refill it with fresh water and reduce the temperature setting back down to a safe setting of 110 to 120 degrees. Since the chlorine solution can disrupt a septic system, do not run the solution into it. Instead, using the hose, discharge the solution to a location outdoors, away from grass and shrubs. **Also make sure the solution does not run into a lake or stream because it will kill fish and other aquatic life.**
7. Properly reinstall your well cap. If it is a vermin-proof cap, make sure it is installed onto the casing in a watertight manner (except for the well vent). If you have an older overlapping well cap, it is a good idea to install a new department-approved vermin proof cap. Doing so will prevent insects, spiders and bacteria from entering your well head and contaminating your drinking water. If your well does not have a vermin-proof cap, a licensed well driller or pump installer will be required to install one the next time work is done on your system.
8. You may need to repeat this disinfection process. If indications of iron bacteria persist after repeating this process, a more aggressive cleaning and disinfection procedure should be considered. See the section below describing methods for treating more severe iron bacteria infestations.

Chlorination in arsenic contamination areas

If you live in an area where arsenic is a problem (like northeastern Wisconsin), be aware that disinfection with chlorine can cause chemical reactions that may release arsenic from the bedrock into the well water. The DNR has a brochure describing "Well Chlorination in Arsenic Sensitive Areas" (PUB DG-069 2012). This guidance provides alternate chlorination procedures that should minimize the release of arsenic into your well water. For a copy of this guidance go to dnr.wi.gov, Search: Chlorination Arsenic.

Treating severe iron bacteria infestations

A standard chlorination can effectively take care of minor bacterial problems, but is only modestly successful for thick iron bacteria biofilms. Slimes coating the inner surfaces of a well prevent the chlorine from getting to the bacteria imbedded in the slime. Even if the chlorine solution kills all of the bacteria in the well, bacteria can survive in the surrounding geologic formation. These bacteria can be drawn back into the well during subsequent pumping cycles. Dissolved iron in the water can also use up much of the chlorine, reducing its effectiveness.

Nonpetroleum sheens on water

Each year the Minnesota Pollution Control Agency (MPCA) receives calls from concerned citizens who have discovered apparent color sheens on water in ditches, ponds, wetlands, lakes and other areas with stagnant, standing water.

Often these sheens have an iridescent or rainbow-like appearance similar to what one sees when a small amount of oil, gasoline or other petroleum product is spilled on water. In some cases, a reddish precipitate can be seen also in the water where these sheens occur.

If there is no obvious source of petroleum that could have been spilled, the sheen may be an organic nonpetroleum, or humic, sheen caused by bacteria.

Is it a bacterial or petroleum sheen?

A nonpetroleum sheen can usually be distinguished from a petroleum sheen by attempting to break up the sheen. When a stick is poked into a bacterial sheen or a stone is dropped into it, the sheen will typically break into small platelets. In contrast, a petroleum sheen will quickly try to reform after any disturbance.

Another difference is odor; a sheen produced by bacteria usually has none, while a sheen caused by a spilled petroleum product may smell like gasoline or diesel fuel.

If you see a sheen on surface water or in a wet area, investigate the sheen if you can safely do so. If, after disturbing the sheen a bit, the sheen appears to be caused by spilled petroleum rather than bacteria, a pollution situation exists and you should report your finding to the Minnesota Duty Officer by calling 800-422-0798.

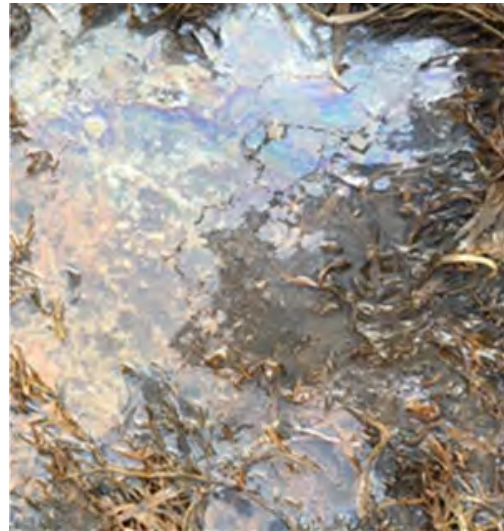
An exception to this would be sheens that result from rainfall washing residual petroleum and sheens from road surfaces and parking lots. Should you find, within a day or two of a rain, a petroleum sheen on standing water that you know for certain is runoff from a nearby road or parking lot, you need not report your finding to the Minnesota Duty Officer because the small amount of oil will evaporate or be degraded naturally by microbes. In addition, there is very little, if anything that can be done to collect a very thin petroleum sheen.

Of course, the owner of a suspected oily parking lot should act to clean the surface of the lot and prevent future contamination. Information about controlling stormwater runoff can be found at www.pca.state.mn.us/water/stormwater.

For more information

For more information on spill prevention, cleanup and disposal, call the MPCA at 651-296-6300 or toll-free at 800-657-3864 and ask for a member of the Emergency Management Unit (EMU) or go to <https://www.pca.state.mn.us/waste/emergency-response>.

More information is also available on the website of the U.S. Environmental Protection Agency at www.epa.gov/oilspill/.



When disturbed, a bacterial sheen will break up into small platelets, unlike a petroleum sheen, which will quickly try to reform.

TABLE 1

TABLE 1. CALCULATED PREVENTATIVE ACTION LIMITS

WESTON DISPOSAL SITE NO. 3 ASH LANDFILL

TOWN OF KNOWLTON, WISCONSIN

Alkalinity ¹ (mg/L)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations	PAL Using NR 140 Table 3 Increment	Selected PAL
Background Monitoring Wells					
LS-100	26	10	55	126	130
LS-101	18	7	40	118	120
Downgradient Monitoring Wells					
LS-105	71	23	140	171	180
LS-106	48	26	125	148	150
LS-107	48	6	67	148	150

Hardness ¹ (mg/L)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations	PAL Using NR 140 Table 3 Increment	Selected PAL
Background Monitoring Wells					
LS-100	66	33	164	166	170
LS-101	14	4	26	114	120
Downgradient Monitoring Wells					
LS-105	82	14	125	182	190
LS-106	57	37	170	157	170
LS-107	135	22	200	235	240

Lithium ¹ (ug/L)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations	PAL Using NR 140 Table 3 Increment	Selected PAL
Background Monitoring Wells					
LS-100	0.89	0.50	2.39	--	2.4
LS-101	0.33	0.11	0.68	--	1.0 ²
Downgradient Monitoring Wells					
LS-105	0.45	0.08	0.68	--	1.0 ²
LS-106	10.4	8.0	34.5	--	40
LS-107	0.73	0.19	1.30	--	1.3

pH (S.U.)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations	PAL Using NR 140 Table 3 Increment ³	Selected PAL ³
Background Monitoring Wells					
LS-100	6.3	1.0	--	5.3 / 7.3	5.3 / 7.3
LS-101	6.2	0.7	--	5.2 / 7.2	5.2 / 7.2
Downgradient Monitoring Wells					
LS-105	6.4	0.8	--	5.4 / 7.4	5.4 / 7.4
LS-106	6.4	0.7	--	5.4 / 7.4	5.4 / 7.4
LS-107	6.1	0.6	--	5.1 / 7.1	5.1 / 7.1

Specific Conductance (umhos/cm)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations	PAL Using NR 140 Table 3 Increment	Selected PAL
Background Monitoring Wells					
LS-100	128	46	267	328	330
LS-101	50	19	108	250	250
Downgradient Monitoring Wells					
LS-105	202	51	355	402	410
LS-106	110	46	247	310	320
LS-107	229	69	435	429	440

Temperature (degrees C)					
Location ID	Mean	Standard Deviation	PAL Using 3 Standard Deviations ³	PAL Using NR 140 Table 3 Increment ³	Selected PAL ^{3, 4}
Background Monitoring Wells					
LS-100	10.5	4.3	-2.6 / 23.5	4.9 / 16.1	0.0 / 24
LS-101	9.1	3.0	0.0 / 18.2	3.5 / 14.7	0.0 / 18
Downgradient Monitoring Wells					
LS-105	10.6	3.9	-1.1 / 22.3	5.0 / 16.2	0.0 / 23
LS-106	10.5	4.6	-3.2 / 24.3	4.9 / 16.1	0.0 / 25
LS-107	9.4	3.0	0.5 / 18.2	3.8 / 15.0	0.5 / 19

[O: KLT 3/12/24, C: KRP 3/14/24][U: KRP 3/14/24, C: KLT 3/18/24] [U: KLT 7/24/24, C: EJT 8/22/24] [U: EJT 8/22/24, C: NRK 8/22/24]

Notes:

1. Parameter reported as total.
2. PAL set at the Reporting Limit.
3. PAL presented as lower / upper limit.
4. Lower limit set at 0.0 if calculated to be less than 0.0.

-- = no listed NR 140 Table 3 increment
degrees C = degrees Celsius
mg/L = milligrams per liter
PAL = Preventive Action Limit
S.U. = Standard Units
ug/L = micrograms per liter
umhos/cm = micromhos per centimeter

August 23, 2024
Project No. 2203724

VIA EMAIL: eric.kovatch@wecenergygroup.com

Mr. Eric Kovatch, P.G.
WEC Business Services, LLC
333 West Everett Street
Milwaukee, Wisconsin 53203

**Re: Response to Incompleteness Determination
Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash Landfill, License
#3067
Town of Knowlton, Wisconsin**

Dear Mr. Kovatch:

GEI Consultants, Inc. (GEI) is pleased to provide WEC Energy Group (WEC) with this response to the Wisconsin Department of Natural Resources (WDNR) incompleteness determination for the Plan of Operation Modification for Initial permitting of coal combustion residual landfill and request for additional information dated March 18, 2024. On January 31, 2023, WEC submitted a Plan of Operation Modification for the WPSC Weston Disposal Site No. 3 (WDS3) Landfill (WDNR License No. 3067) as required by NR 514.045(1) of the Wisconsin Administrative Code. In the WDNR's incompleteness determination, they requested the following:

1. Section NR 500.05(4)(b), Wis. Adm. Code: Provide a Professional Geologist seal and certification statement that certifies the entire report.
2. Section NR 507.15(3)(b), Wis. Adm. Code: Provide site-specific technical data on the below listed items and provide additional discussion on how that information was considered when deciding the number, spacing, and depths of monitoring wells that are part of the proposed CCR groundwater monitoring system.
 - i. Seasonal and temporal groundwater flow.
 - ii. Porosities, and effective porosities for the saturated and unsaturated geologic units overlying the uppermost aquifer and materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer.
3. Sections NR 514.045(1)(c)1 through 3, Wis. Adm. Code: Provide a demonstration addressing the stability items of this section that includes a discussion on overburden soil type and depth, differences in soil type across the approved landfill, and the slope of the underlying bedrock and their impact on the unstable area determination for the site.

4. Sections NR 520.07(1), Wis. Adm. Code: Provide justification, including supporting documentation, for the closure and long-term care cost estimates and provide an updated long-term care cost estimate table that includes the estimated cost for video inspection of the leachate collection system every five years.
5. Provide supporting justification for an NR 140 exemption and provide a discussion on the potential source of boron at downgradient monitoring well LS-106.

This letter addresses comments 1, 3, and 4 requested by the WDNR, which includes a Professional Geologist seal and certification for the entire Plan of Operation Modification Report, a demonstration of the stability items listed in NR 514.045(1)(c)1 through 3 and how these items may impact the unstable area determination for the site, and justification, with supporting documentation, of the closure and long-term care costs estimates that includes an estimated cost for video inspection of the leachate collection system in the long-term care cost estimate. The attached sections of the Plan of Operation Modification provide the additional information requested by the WDNR from the March 18, 2024 incompleteness determination.

If you have any questions regarding the landfill permitting, design, and financial responsibility sections outlined in this response, please contact Mr. John Trast at 920.455.8299 or Mr. Andrew Schwoerer at 920.471.0652.

Sincerely,

GEI Consultants, Inc.



Andrew J. Schwoerer, P.G.
Project Professional



John M. Trast, P.E., D.GE
Vice President

AJS/JXT:amp

B:\Working\WEC ENERGY GROUP\2203724 CCR Landfill Permitting\05_In_Progress\WDS3 Plan of Operation\WDS3_Plan of Operation Modification_8.23.24_Submittal #3\L2203724_WDS3 Response Letter_8.23.24.docx

Attachments

Section 1	Engineer and Geologist Certification
Section 4	Locational Criteria Demonstrations
Appendix F	Unstable Area Demonstrations
Appendix H	Base Liner Calculations
Appendix L	Closure Plan
Appendix M	Post-Closure Plan

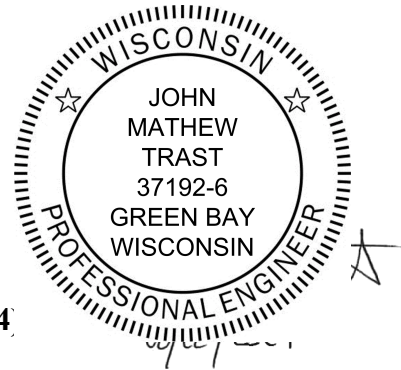
1. Engineer and Geologist Certification

Professional Engineer Certification Statement – NR 500.05(4)(a)

"I, John M. Trast, P.E., D.GE, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 500 to 538, Wis. Adm. Code."



John M. Trast, P.E., D.GE
Professional Engineer License No. 31792

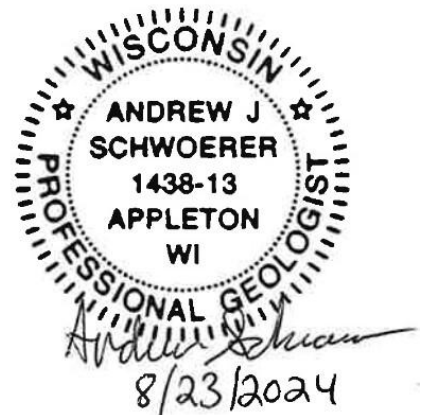


Professional Geologist Certification Statement – NR 500.05(4)

"I, Andrew J. Schwoerer, P.G., hereby certify that I am a licensed professional geologist in the State of Wisconsin in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code; that the preparation of this document has not involved any unprofessional conduct as detailed in ch. GHSS 5, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 500 to 538, Wis. Adm. Code."



Andrew J. Schwoerer, P.G.
Professional Geologist License No. 1438-13



4. Locational Criteria Demonstrations

4.1 Fault Areas

Section NR 504.04(3)(g) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of filling are or would be within 200 feet of a fault that has had displacement in the Holocene time.” According to the U.S. Geological Survey (USGS) and Illinois State Geological Survey Quaternary faults and folds database for the United States (USGS, 2022), the fault zone nearest to WDS3 with documented displacement in Holocene time (approximately 12,000 years ago to present day) is the Wabash Valley Seismic Zone, as shown in Appendix D. While active fault zones are not expressed at the surface, movement along these faults have caused seismic activity in the region during Holocene epoch.

The Wabash Valley Seismic Zone is primarily located in central and southeastern Illinois and southwestern Indiana (USGS, 2022). WDS3 approximately 530 miles north of the Wabash Valley Seismic Zone, satisfying the requirements of Section NR 504.04(3)(g).

4.2 Seismic Impact Zones

Section NR 504.04(3)(h) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of filling are or would be within seismic impacts zones.” As defined in 40 CFR § 257.53 of the Federal Code, a seismic impact zone is, “an area having two percent or greater probability that the maximum expected horizontal ground acceleration will exceed 10 percent of gravity (0.10g) in 50 years (return period of approximately 2,500 years).” The USGS Earthquake Hazard Program (EHP) and National Seismic Hazard Mapping Project (NSHMP) Unified Hazard Tool and calculations from Earthquake Hazards 201 – Technical Q&A, USGS, August 6, 2019, was utilized to calculate the annual frequency of exceedance and expected horizontal ground acceleration at WDS3 to determine if the landfill is established within a seismic impact zone. The calculations and results for the EHP and NSHMP Unified Hazard Tool return period are presented in Appendix E.

WDS3 is not located in a seismic impact zone as defined in 40 CFR §257.53 and satisfies the requirements of NR 504.04(3)(h).

4.3 Unstable Areas

Section NR 504.04(3)(i) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of

filling are or would be within an unstable area.” As outlined in NR 514.045(1)(c), the following must be considered when determining whether an area is unstable:

- On-site or local soil conditions that may result in significant differential settling
- On-site or local geologic or geomorphologic features
- On-site or local human-made features or events (both surface and subsurface)

A discussion of the geologic and geotechnical items outlined in NR 514.045(1)(c) to demonstrate that the site is not within an unstable area was addressed in the AECOM Feasibility Report – Proposed Weston Disposal Site No. 3 Expansion, prepared in August 2012, and approved by the WDNR on December 13, 2013. That discussion is included in Sections 4.3.1 and 4.3.2, below. In addition, GEI also considered the overburden soil type and depth, the slope of the underlying bedrock, the proximity of the site to documented karst regions, the proximity of the site to documented oil wells, and the proximity of the site to documented gas wells. A Location Restriction Demonstration was prepared on October 12, 2018, in compliance with 40 CFR 257.64, that states the WDS3 Ash Landfill is not located in an unstable area that could result in significant differential settlement or mass movement damaging the facility, as presented in Appendix F. Collectively, these satisfy the requirements of NR 514.045(1)(c).

4.3.1 Site Geology

Previous geologic investigations were completed as part of the original 1985 Feasibility Report for the facility that characterized the site as glacial till overlying Precambrian igneous bedrock, identified as granite. It also included a weathered bedrock zone between the glacial till and competent igneous bedrock (Donohue, 1985). The 2011 geological investigation as part of the 2012 AECOM Feasibility Report interpreted the on-site geology as approximately 0.5 to 20 feet of unconsolidated deposits, consisting of a relatively thin and discontinuous unit of glacial till and residuum identified as the Marathon Formation, undifferentiated, overlying a unit of weathered bedrock. Underlying these unconsolidated deposits is competent Precambrian bedrock, which consists mainly of quartz diorite, and lesser amounts of granite and amphibolite.

The three main units, Marathon Formation, undifferentiated; weathered bedrock; and the Precambrian bedrock, all encountered during the 2012 Feasibility investigation, are described below. Fourteen cross-sections, Drawings FR-9 through FR-23, were also developed, oriented both parallel and perpendicular to the landfill, and are included in the AECOM Feasibility Report – Proposed Weston Disposal Site No. 3 Expansion, prepared in August 2012, and approved by the WDNR on December 13, 2013, in addition to the borings used to prepare the cross-sections.

4.3.1.1 Marathon Formation, Undifferentiated (gu)

The Marathon Formation, undifferentiated (gu), consists of a mixture of glacial till and residuum. The residuum was derived from the parent bedrock material, mainly from hillslope erosion and/or by glacial processes, which would also leave behind glacially transported material. The Marathon Formation, undifferentiated (gu) diffusely transitions from the thin overlying topsoil. The Marathon Formation, undifferentiated (gu) is laterally discontinuous across the site and sits unconformably on the weathered bedrock below it. The contact between the Marathon Formation, undifferentiated (gu), and the weathered bedrock can be difficult to identify, as the Marathon Formation, undifferentiated (gu), is a mixture of glacially derived material and the weathered bedrock below it. In general, the Marathon Formation, undifferentiated (gu), is brown, to yellowish brown and tends to exhibit some degree of sorting, with no relict textures of the parent bedrock. Grain-size analysis indicates it is predominately silty sand to sand (mainly SM), and to a lesser extent SP-SM, ML, and CL.

4.3.1.2 Weathered Bedrock (ggrw)

The weathered bedrock (ggrw) gradually transitions from the Marathon Formation, undifferentiated (gu), or more sharply from the thin overlying topsoil. The weathered bedrock (ggrw) is predominately a silty sand (SM) derived from the bedrock directly beneath it. Fragments of gravel to cobble-sized competent pieces of the parent rock are commonly found in-place throughout this silty sand. Relic textures of the parent material can often be observed. The color may be yellowish brown, brown, black, or yellowish red, depending on the parent rock from which it is derived. The contact with the underlying competent bedrock is generally abrupt.

4.3.1.3 Precambrian Bedrock

The bedrock is variable in the vicinity of the WDS3 Landfill. The 2012 AECOM Feasibility Report investigation determined that there were three rock types found during coring and bedrock sampling:

- Quartz diorite (Borings B-100, LS-100P, LS-101P);
- Amphibolite (Boring B-103P);
- Granite (Boring LS-105P).

Based on the drilling completed as part of the 2012 AECOM Feasibility Report, it was not possible to determine the relationship between the three rock types. Ten feet below the top of competent bedrock, the RQDs were generally above 80 percent. Based on the deepest

borings completed on the site for all the geotechnical investigations, the thickness of the bedrock is at least 31 feet.

Quartz diorite was the most prevalent rock type. It tends to be light grey to almost black, and weakly foliated. Healed subvertical, extremely narrow to tight fractures are common, often with iron oxide staining. Only one instance of a mylonitic shear was observed (LS-101P). The slowest drilling times were encountered in this rock type.

The amphibolite was generally black with some light grey and had higher RQDs (Boring LS-103P). Where encountered, the rock appears relatively massive, with a few thin quartz veins. Pyrite was also observed throughout the rock core from LS-103P. The granite (Borings LS-105P) was generally massive, moderated red in color, and with the fastest average drilling time of 3 minutes per foot.

Based on borings completed for the Feasibility Report, there is a bedrock high on the west side of the site just over elevation 1,200 feet North American Vertical Datum 1988 (NAVD88) in the vicinity of Boring B-37(T). The bedrock surface slopes radically away from the high points. There is a smaller, less pronounced high at roughly the same elevation 1,200 feet NAVD88 in the northeast corner of the site near boring B-7(T). Moving southeast from the high at B-37(T), the bedrock surface appears to slope to the south/southeast to elevations between 1,163 feet NAVD88 (Boring LS-53P) to elevation 1,166.69 (West Nest LS-48).

4.3.2 Stability Analysis

Slope stability analyses were performed in the 2014 TRC Plan of Operation to evaluate the stability of the liner and cover systems. The approach, assumptions, and detailed discussion of the analyses are included in Appendix G-1 from the 2014 Plan of Operation prepared by TRC and approved by the WDNR on December 11, 2014, and discussed in the sections below.

4.3.2.1 Interface slope stability

The minimum safety factor against interface slope failure within the liner system is 1.2, representing the wetted geosynthetic clay liner – clay liner interface on the base slopes with 1 foot of water on the overlying geomembrane and prior to CCR filling. The safety factor against interface slope failure within the liner will increase with CCR placement.

The minimum safety factor against interface slope failure within the cover system is 1.6, representing the select granular fill drainage layer – textured LLDPE geomembrane interface under saturated cover soil conditions. The safety factors against interface slope failure within the cover and liner systems are considered acceptable.

4.3.2.2 Global Slope Stability

A geotechnical analysis demonstrating the global stability of the landfill was completed for the Plan of Operation Report in 2014 by TRC. The approach, assumptions, and detailed discussion of the global stability analysis are provided in Appendix G-2 in the 2014 Plan of Operation prepared by TRC and approved by the WDNR on December 11, 2014, and discussed in the sections below.

The results indicate a minimum safety factor of 2.0 for the final cover slope and a minimum safety factor of 1.3 for a 3H:1V intermediate CCR slope against global slope failure for static conditions. These results indicate the landfill is stable under the specific model conditions. The stability of the liner slope will increase with CCR placement.

In addition, GEI recreated the TRC stability model in GeoStudio using the information provided in the Appendix H to force the failure surface to the bedrock interface. In the original analysis failure surfaces to the bedrock surface were not shown because the calculated factor of safety was significantly greater than the controlling surfaces. By forcing the failure surface to extend to the bedrock interface, the factor of safety is on the order of 2.6, which is significantly greater than the minimum factor of safety for the landfill and well above the minimum standard for factor of safety. This analysis is provided in Appendix H.

4.4 Floodplains

Section NR 514.045(1)(d) of the Wis. Adm. Code states, “*the owner or operator of a new or existing CCR landfill must demonstrate that the facility or practices near floodplains may not restrict the flow of the regional flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife, or land and water resources.*” The following sources, presented in Appendix G, were utilized to determine if WDS3 is within a floodplain:

- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer Map
- WDNR Surface Water Data Viewer Map – Dam and Floodplain

The WDS3 waste footprint is outside of the floodplain and is in an area of minimal flood hazard as shown in Appendix G. Collectively these satisfy the requirements of NR 514.045(1)(d).

4.5 Aquifer Separation

Section NR 514.045(1)(f) of the Wis. Adm. Code states that the Plan of Operation Modification shall include, “*a demonstration that the CCR landfill design meets requirements under s. NR 514.12,*” which includes rule NR 504.12(3)(b) which states, “*a new CCR landfill or lateral expansion of a CCR landfill shall be designed and constructed with a*

subbase grade that is located no less than 5 feet above the upper limit of the uppermost aquifer, or shall demonstrate that there will not be an intermittent recurring or sustain hydraulic connection between any portion of the base of the CCR landfill and the uppermost aquifer due to normal fluctuations in groundwater elevations, including the seasonal high water table.”

Ramboll Group (Ramboll) has performed the CCR groundwater monitoring at WDS3 and have provided their Environmental Sampling and Analysis Plan in Appendix O. The landfill is designed as a gradient controlled composite lined landfill. The subbase gradient control system is designed to limit the rise of groundwater into the clay liner system and prevent an intermittent recurring or sustain hydraulic connection between any portion of the base of the landfill and the uppermost aquifer due to normal fluctuations in groundwater elevations. Details of the gradient control system are included in Drawing PM-21 and discussed in Section 5.3. Collectively, these satisfy conditions of NR 514.045(1)(f) and NR 514.12.

Appendix F

Unstable Areas Demonstration

LOCATION RESTRICTIONS DEMONSTRATION
UNSTABLE AREAS
40 CFR PART 257.64
WESTON DISPOSAL SITE NO. 3 LANDFILL
WISCONSIN PUBLIC SERVICE CORPORATION

Wisconsin Public Service Corporation (WPSC) owns and operates the Weston Disposal Site No. 3 Landfill, located in the E 1/2 of the NW 1/4 and W 1/2 of the NE 1/4, Section 23, Township 26 North, Range 7 East, Town of Knowlton, Marathon County, Wisconsin. The WPSC Weston Disposal Site No. 3 Landfill is regulated as an industrial waste landfill by the Wisconsin Department of Natural Resources (WDNR) under the provisions of Chapter 289 Wisconsin State Statutes, and all applicable requirements of Chapters NR 500 of the Wisconsin Administrative Code. The design, construction, operation, closure, and post-closure care requirements are specified in the WDNR conditionally approved Plan of Operations, License No. 3067, FID No. 737025120. The construction of Cells 1 and 2 commenced in May 2015. The landfill was placed into operation in 2016.

In addition to the state regulations, the landfill is also required to comply with 40 CFR Part 257 Subpart D – *Standards for Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments*. Weston Disposal Site No. 3 Landfill, Cells 1 and 2, is defined as a CCR unit and existing CCR landfill in accordance with 40 CFR 257.53 since construction commenced prior to October 19, 2015. Future landfill cells are permitted by the WDNR in the conditionally approved Plan of Operation and defined as lateral expansions under 40 CFR 257.53 when constructed. This document fulfills the requirements for the Location Restrictions Demonstration for Landfill No. 3 as an existing CCR landfill in accordance with 40 CFR 257 Subpart D.

Location restrictions related to unstable areas are outlined in 40 CFR 257.64 – Unstable Areas:

§ 257.64 Unstable areas.

(a) An existing or new CCR landfill, existing or new CCR surface impoundment, or any lateral expansion of a CCR unit must not be located in an unstable area unless the owner or operator demonstrates by the dates specified in paragraph (d) of this section that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted. (b) The owner or operator must consider all of the following factors, at a minimum, when determining whether an area is unstable: (1) On-site or local soil conditions that may result in significant differential settling; (2) On-site or local geologic or geomorphologic features; and (3) On-site or local human-made features or events (both surface and subsurface).

The rule defines an “Unstable Area” as “a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including structural components of some or all of the CCR unit that are responsible for preventing releases from such unit.

Based on review of the site’s location, soil conditions, human-made features or events (both surface and subsurface), geology, and hydrogeology the existing Weston Disposal Site No. 3 Landfill is not located in an unstable area that could result in significant differential settlement or mass movement damaging the facility.

This report was completed under the direction of John, M. Trast, P.E. I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wisconsin Administrative Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wisconsin Administrative Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in 40 CFR Part 257 Subpart D.



John Mathew Trast, P.E.
Licensed Professional Engineer No. 31792
Senior Consultant
GEI Consultants, Inc.












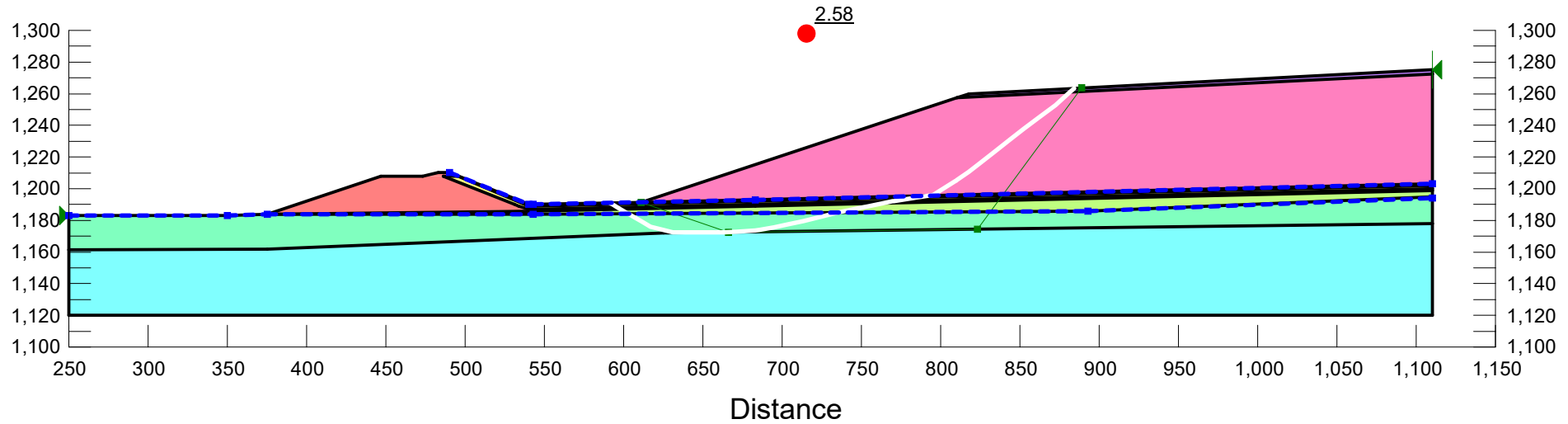
Appendix H

Liner Design Calculations

WDS3 Global Stability
 Geologic Section E-E'
 Interphase Construction, Long-Term Drained Conditions
 Failure Surface Forced to Bedrock Interface

Factor of Safety: 2.58

Color	Name	Unit Weight (pcf)	Effective Cohesion (psf)	Effective Friction Angle (°)
	CCR	106	275	32
	Compacted General Fill	125	0	30
	Compacted Liner	130	0	30
	Critical Geosynthetic Interface	115	5	11
	General Fill Cover	115	0	26
	Granitic Bedrock	135	0	40
	Overburden Soil	120	0	35
	Select Granular Fill	135	0	36
	Structural Fill	115	0	30



Appendix L

Closure Plan

Table 1 - Closure Cost Estimate
Wisconsin Public Service Corporation
Weston Disposal Site No. 3
GEI Consultants, Inc.
August 23, 2024

<i>Item⁽¹⁾</i>	<i>Quantity</i>	<i>Unit⁽³⁾⁽⁴⁾</i>	<i>Unit Cost</i>	<i>Total</i>	<i>Cost Source</i>
Engineering Plans and Specifications					
Engineering Plans and Specifications	1.0	LS	\$30,000.00	\$30,000.00	<i>Estimate from GEI Consultants (2024)</i>
Final Cover Construction					
Mobilization	1.0	LS	\$15,000.00	\$15,000.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Surveying	1.0	LS	\$10,000.00	\$10,000.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Borrow Source and Soil Stockpile Restoration	1.0	LS	\$10,000.00	\$10,000.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
24-inch Soil Barrier Layer (clay or soil) - Haul, Place, and Compact	62,275	cy	\$6.50	\$404,787.50	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Geosynthetic Clay Liner (GCL)	840,700	sf	\$0.70	\$588,490.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
40-mil LLDPE Geomembrane Textured	840,700	sf	\$0.50	\$420,350.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Geocomposite Drainage Layer	840,700	sf	\$0.65	\$546,455.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Rooting Zone Soil (30-inches)	77,850	cy	\$7.50	\$583,875.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Diversion Berm	3,130	LF	\$12.00	\$37,560.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Topsoil (6-inches)	15,570	cy	\$6.00	\$93,420.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Seed, Mulch, Fertilizer, Lime	19.3	acre	\$2,800.00	\$54,040.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Downslope Flume/Drop Manhole	3.0	LS	\$20,000.00	\$60,000.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Drainage Layer Discharge Trench ⁽⁵⁾	2,750.0	LF	\$25.00	\$68,750.00	<i>Estimate from Riverview Construction (2024) - See Attachment</i>
Construction QA & Documentation					
Construction QA & Documentation	19.3	acre	\$25,000.00	\$482,500.00	<i>Estimate from GEI Consultants (2024)</i>
			Subtotal Closure Cost	\$3,405,227.50	
			Contingency (10%)	\$340,522.75	
			Total Closure Cost	\$3,745,750.25	

Notes

- ⁽¹⁾This closure cost estimate is based on the largest open area of the staged construction plan of 19.3 acres.
⁽²⁾The final cover cross-section is based on the Plan of Operation Modification dated August 2023.
⁽³⁾Unit prices are based on previous liner/final cover construction projects and vendor cost estimates.
⁽⁴⁾Costs are in 2024 dollars.
⁽⁵⁾Includes perforated drainage pipe, non-perforated discharge pipe, geotextile, and pipe bedding.

ESTIMATE PREPARED BY:

RIVER VIEW CONSTRUCTION, INC.



Closure – 19.3 acres

Final Cover Construction	QTY	UOM	UNIT RATE	COST
Mobilization	1.00	LS	\$ 15,000.00	\$ 15,000.00
Surveying	1.00	LS	\$ 10,000.00	\$ 7,500.00
Borrow Source and Soil Stockpile Restoration	1.00	LS	\$ 10,000.00	\$ 10,000.00
24-inch Soil Barrier Layer (on-site clay) - Haul, Place, and Compact	62,275.00	cy	\$ 6.50	\$ 404,787.50
Geosynthetic Clay Liner (GCL)	840,700.00	sf	\$ 0.70	\$ 588,490.00
40-mil LLDPE Geomembrane Textured	840,700.00	sf	\$ 0.50	\$ 420,350.00
Geocomposite Drainage Layer	840,700.00	sf	\$ 0.65	\$ 546,455.00
Rooting Zone Soil (30-inches)	77,850.00	cy	\$ 7.50	\$ 583,875.00
Diversion Berm	3,130.00	LF	\$ 12.00	\$ 37,560.00
Topsoil (6-inches)	15,570.00	cy	\$ 6.00	\$ 93,420.00
Seed, Mulch, Fertilizer, Lime	19.30	acre	\$ 2,800.00	\$ 54,040.00
Downslope Flume/Drop Manhole	3.00	LS	\$ 20,000.00	\$ 60,000.00
Drainage Layer Discharge Trench ⁽⁵⁾	2,750.00	LF	\$ 25.00	\$ 68,750.00
TOTAL \$				2,890,227.50

Appendix M

Post Closure Care Plan

Table 1 - Long-Term Care Cost Estimate
Wisconsin Public Service Corporation
Weston Disposal Site No. 3
GEI Consultants, Inc.
June 28, 2024

Item	Quantity	Unit	Unit Cost ⁽¹⁾	Total	Cost Source
Land Surface Care/Cover Maintenance					
Erosion Repair, Fertilizer, Seed/Mulch	1.00	ac	\$ 3,500.00	\$ 3,500.00	Estimate from Riverview Construction (2024) - See Attachment
Final Cover Regrading Within 5% Slope Areas	1.00	LS	\$ 3,500.00	\$ 3,500.00	Estimate from Riverview Construction (2024) - See Attachment
Downslope Flumes Maintenance	1.00	LS	\$ 1,500.00	\$ 1,500.00	Estimate from Riverview Construction (2024) - See Attachment
Mowing	1.00	LS	\$ 6,000.00	\$ 6,000.00	Estimate from Riverview Construction (2024) - See Attachment
Stormwater Basin Cleaning ⁽²⁾ /Road Maintenance	1.00	LS	\$ 6,000.00	\$ 6,000.00	Estimate from Riverview Construction (2024) - See Attachment
Snow Plowing	1.00	LS	\$ 6,000.00	\$ 6,000.00	Estimate from Riverview Construction (2024) - See Attachment
Monitoring System Maintenance					
Groundwater Monitoring Wells Replacement/Maintenance	0.68	ea	\$ 3,000.00	\$ 2,040.00	Estimate from Riverview Construction (2024) - See Attachment
Leachate Management System Maintenance					
Leachate Line Cleaning/Jetting	1	LS	\$ 8,720.00	\$ 8,720.00	Estimate from Great Lakes TV Seal (2024) - See Attachment
Leachate Line Televising	0.2	LS	\$ 17,770.00	\$ 3,554.00	Televised every 5 years. Estimate from Great Lakes TV Seal (2024) - See Attachment
Leachate Pumps/Leachate Tank Electricity Costs	1	LS	\$ 30,000.00	\$ 30,000.00	Estimate from Riverview Construction (2024) - See Attachment
Leachate Pump Replacement ⁽³⁾	1.00	LS	\$ 4,500.00	\$ 4,500.00	Estimate from Riverview Construction (2024) - See Attachment
Leachate Disposal/Treatment/Transportation ⁽⁴⁾	1,569.5	1000 gal	\$ 35.00	\$ 54,932.50	Estimate from Riverview Construction (2024) - See Attachment
Leachate System Operation and Maintenance	1.0	LS	\$ 8,000.00	\$ 8,000.00	Estimate from Riverview Construction (2024) - See Attachment
Tank Replacement	1.000	LS	\$ 2,500.00	\$ 2,500.00	Estimate from Riverview Construction (2024) - See Attachment
Forcemain, Manholes, and Tank Cleaning	1.0	LS	\$ 7,500.00	\$ 7,500.00	Estimate from Riverview Construction (2024) - See Attachment
Programmable Logic Control System	1.0	LS	\$ 2,500.00	\$ 2,500.00	Estimate from Riverview Construction (2024) - See Attachment
Replace Transducers	0.05	LS	\$ 1,500.00	\$ 75.00	Estimate from Riverview Construction (2024) - See Attachment
Site Inspections					
Annual Site Inspection	1	LS	\$ 2,000.00	\$ 2,000.00	Estimate from GEI Consultants (2024)
Annual Report	1	LS	\$ 5,000.00	\$ 5,000.00	Estimate from GEI Consultants (2024)
Monthly Inspections - Manholes, Cover, Headwells, Tanks, Surface Water Features	12	LS	\$ 3,000.00	\$ 36,000.00	Estimate from Riverview Construction (2024) - See Attachment
Groundwater and Groundwater Head Monitoring (Semi-Annual)					
Semi-annual Landfill Well Monitoring (16 wells - field parameters & analytical)	32	ea	\$ 600.00	\$ 19,200.00	Estimate from Ramboll (2024) - See Attachment
Leachate Monitoring (Semi-Annual)					
Leachate Head Well Elevation (17 locations)	34	ea	\$ 10.00	\$ 340.00	Estimate from Riverview Construction (2024) - See Attachment
Leachate Tank Analysis (field parameters and analytical)	2	ea	\$ 600.00	\$ 1,200.00	Estimate from Ramboll (2024) - See Attachment
Stormwater Basin Monitoring (Semi-Annual)					
Stormwater Basin Analysis (7 locations - field parameters)	14	ea	\$ 40.00	\$ 560.00	Estimate from Ramboll (2024) - See Attachment
Reporting and Submittals					
GEMS Database Submittal	1	LS	\$ 2,000.00	\$ 2,000.00	Estimate from Ramboll (2024) - See Attachment

Summary	Years	Annual Cost	Total Cost
Land Surface Care	40	\$28,540.00	\$1,141,600.00
Site Inspection	40	\$43,000.00	\$1,720,000.00
Groundwater Monitoring	40	\$19,200.00	\$768,000.00
Leachate Hauling and Treatment	40	\$54,932.50	\$2,197,300.00
Leachate System Maintenance	40	\$67,349.00	\$2,693,960.00
Leachate Monitoring	40	\$1,540.00	\$61,600.00
Stormwater Basin Monitoring	40	\$560.00	\$22,400.00
Reporting and Submittals	40	\$2,000.00	\$80,000.00
Subtotal Long-Term Care Cost:		\$217,121.50	\$8,684,860.00
Contingency (10%)		\$21,712.15	\$868,486.00
Total Annual Long-Term Care Cost:		\$238,833.65	\$9,553,346.00

Notes

⁽¹⁾Annual costs are in 2024 dollars.

⁽²⁾Stormwater basins will be cleaned once per year, or as needed.

⁽³⁾Assumes the leachate pumps will be replaced once throughout the duration of LTC.

⁽⁴⁾Leachate treatment volume is based on an estimated rate of one inch per year per acre.

ESTIMATE PREPARED BY:

RIVER VIEW CONSTRUCTION, INC.



Long-Term Closure (cost per year, 40 years of LTC)

	QTY	UOM	UNIT RATE	UNIT RATE
Land Surface Care/Cover Maintenance				
Erosion Repair, Fertilizer, Seed/Mulch	1.00	ac	\$ 3,500.00	\$ 3,500.00
Final Cover Regrading Within 5% Slope Areas	1.00	LS	\$ 5,000.00	\$ 5,000.00
Downslope Flumes Maintenance	1.00	LS	\$ 1,500.00	\$ 1,500.00
Mowing	1.00	LS	\$ 6,000.00	\$ 6,000.00
Sedimentation Basin Cleaning ⁽²⁾ /Road Maintenance	1.00	LS	\$ 6,000.00	\$ 6,000.00
Snow Plowing	1.00	LS	\$ 6,000.00	\$ 6,000.00
Monitoring System Maintenance				
Groundwater Monitoring Wells Replacement/Maintenance	0.68	ea	\$ 3,000.00	\$ 2,040.00
Leachate Management System Maintenance				
Leachate Pumps/Leachate Tank Electricity Costs	1.00	LS	\$ 30,000.00	\$ 30,000.00
Leachate Pump Replacement ⁽³⁾	0.50	LS	\$ 4,500.00	\$ 2,250.00
Leachate Disposal/Treatment/Transportation ⁽⁴⁾	1569.50	1000 gal	\$ 35.00	\$ 54,932.50
Leachate System Operation and Maintenance	1.00	LS	\$ 8,000.00	\$ 8,000.00
Tank Replacement (assume once during LTC)	0.03	LS	\$ 2,500.00	\$ 62.50
Forcemain, Manholes, and Tank Cleaning	1.00	LS	\$ 7,500.00	\$ 7,500.00
Programmable Logic Control System	1.00	LS	\$ 2,500.00	\$ 2,500.00
Replace Transducers (one replacement during duration of LTC, 2 transducers)	0.05	LS	\$ 1,500.00	\$ 75.00
Site Inspections				
Monthly Inspections - Manholes, Cover, Headwells, Tanks, Surface Water Features	12.00	LS	\$ 3,000.00	\$ 36,000.00
Leachate Monitoring (Semi-Annual)				
Leachate Head Well Elevation (17 locations)	34.00	ea	\$ 10.00	\$ 340.00

TOTAL \$ 171,700.00



3600 Kewaunee Road
 Green Bay, WI 54311
 Phone: (920)863-3663
 Fax: (920)863-3662

Quotation

Quote Number
23129

Quote Date
May 2, 2024

Quoted to:

GEI CONSULTANTS INC.
 3159 Voyager Drive
 Green Bay, WI 54311

Page
1

Quote Good Thru	Payment Terms	Sales Rep
6/1/24	Net 30 Days	

Description	Unit of Measure	Quantity	Unit Price	Extension
WPS - WESTON DISPOSAL SITE NO.3	.			
ESTIMATE TO JET & TELEWISE LEACHATE LINES	.			
JET LEACHATE LINES - APPROX. 12,000 FT.	.			
MOBILIZATION/DEMobilIZATION / JET VAC & CREW	EACH	1.00	845.000	845.00
#2115 VACTOR JET-RODDER / 2 MEN	HOUR	25.00	315.000	7,875.00
TELEWISE LEACHATE LINES - APPROX. 12,000 FT.	.			
MOBILIZATION/DEMobilIZATION / TV UNIT & CREW	EACH	1.00	730.000	730.00
PIPE INSPECTION / TR66 TRACTOR FOR SMALL DIAMETER PIPE	FOOT	12,000.00	1.420	17,040.00

Please notify Great Lakes within 30 days if the quotation is accepted and the above prices will be honored.
 This acknowledgment will enable us to schedule your work more efficiently.

Subtotal	26,490.00
Sales Tax	
Total	26,490.00

Schwoerer, Andrew

From: Kovatch, Eric <Eric.Kovatch@wecenergygroup.com>
Sent: Monday, May 20, 2024 12:54 PM
To: Schworer, Andrew
Cc: Trast, John
Subject: [EXT] RE: Weston Disposal Site #3 Long-Term Care Cost Estimate for Plan of Operation Modification

EXTERNAL EMAIL

Andrew:

Please presume the following in your cost estimates:

- \$18,000 annually for RE Lee
- \$3,000 annually for Pace Analytical Services

Eric
414.221.2457

Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities, Minnesota Energy Resources, Peoples Gas, North Shore Gas and Upper Michigan Energy Resources

From: Schworer, Andrew <aschworer@geiconsultants.com>
Sent: Monday, May 20, 2024 12:30 PM
To: Nathaniel R Keller <Nate.Keller@ramboll.com>; Eric J Tlachac <Eric.Tlachac@ramboll.com>
Cc: Trast, John <jtrast@geiconsultants.com>; Kovatch, Eric <Eric.Kovatch@wecenergygroup.com>
Subject: RE: Weston Disposal Site #3 Long-Term Care Cost Estimate for Plan of Operation Modification

***** Exercise caution: This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or in unexpected emails. *****

Good afternoon Eric and Nate,

Just circling back around to this long-term care cost estimate we need to answer Comment #4 from the WDNR for the Weston Disposal Site #3 Plan of Operation Modification. All I need is a cost estimate for the items in my previous email that you currently provide at the site so I can include that in the Post-Closure Care Plan. If you have any questions, please let me know.

Also, it was nice to finally meet you in person at WOCA, Eric. Great job with your talk on Tuesday.

Andrew

GEI ANDREW SCHWOERER, P.G.
Project Professional
920.471.0652 cell: 920.475.0321
3159 Voyager Drive, Green Bay, WI 54311



Schwoerer, Andrew

From: Kovatch, Eric <Eric.Kovatch@wecenergygroup.com>
Sent: Monday, May 20, 2024 12:48 PM
To: Schworer, Andrew
Subject: [EXT] FW: Weston Disposal Site #3 Long-Term Care Cost Estimate for Plan of Operation Modification

EXTERNAL EMAIL

Andrew –
Here was the GEMS reporting costs from Ramboll –
I do not see an email here from Cody so I am going to have to follow and see what I have...

Thanks
Eric

Eric
414.221.2457

Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities, Minnesota Energy Resources, Peoples Gas, North Shore Gas and Upper Michigan Energy Resources

From: Eric J Tlachac <Eric.Tlachac@ramboll.com>
Sent: Thursday, May 2, 2024 12:09 PM
To: Kovatch, Eric <Eric.Kovatch@wecenergygroup.com>
Cc: Nathaniel R Keller <Nate.Keller@ramboll.com>; Mike Mejac <Mike.Mejac@ramboll.com>
Subject: RE: Weston Disposal Site #3 Long-Term Care Cost Estimate for Plan of Operation Modification

***** Exercise caution: This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or in unexpected emails. *****

Hi Eric K. - our estimate for the GEMS submittal is \$2,000, which includes some contingency. I'm not sure how GEI handles cost acceleration over the 40-yr long-term care period in their estimate, but the contingency helps account for that. Let me know if you need additional detail on this.

Eric Tlachac, PE
Senior Managing Engineer

D +1 414-837-3541
M +1 262-719-4526
eric.tlachac@ramboll.com

Classification: Confidential

From: Kovatch, Eric <Eric.Kovatch@wecenergygroup.com>
Sent: Thursday, May 2, 2024 11:50 AM
To: Eric J Tlachac <Eric.Tlachac@ramboll.com>
Cc: Nathaniel R Keller <Nate.Keller@ramboll.com>; Mike Mejac <Mike.Mejac@ramboll.com>
Subject: RE: Weston Disposal Site #3 Long-Term Care Cost Estimate for Plan of Operation Modification

ATTACHMENT - SECTION 2

DECEMBER 19, 2023

PLAN OF OPERATION MODIFICATION

WISCONSIN PUBLIC SERVICE WESTON DISPOSAL SITE #3 ASH LANDFILL



Wisconsin Public Service Corporation

Environmental Department

333 W. Everett St.

Milwaukee, WI 53203

December 19, 2023

Mr. Anthony Peterson
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, WI 53188

via electronic submittal

**RE: PLAN OF OPERATION MODIFICATION
WISCONSIN PUBLIC SERVICE WESTON DISPOSAL SITE #3 ASH LANDFILL
LICENSE #3067 - FID# 737054120**

Dear Mr. Peterson

Please find enclosed an updated Plan of Operation Modification (POM) for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 (WDS#3) Ash Landfill (License #3067) referenced above.

On August 1, 2022, Wisconsin Administrative Code NR 500 was updated to include changes to new and existing Coal Combustion Residual (CCR) Landfills in Wisconsin. On January 31, 2023, an updated POM for this CCR landfill was submitted to the Wisconsin Department of Natural Resources (WDNR) as required in NR 514.045. On April 26, 2023, the WDNR issued an Incompleteness Determination for the POM. As you will recall, one specific requirement of the revised NR500 rules was that the POM include baseline groundwater data for monitoring wells where water samples had previously not been analyzed for specific, required parameters. The baseline groundwater sampling is now complete and the required data are included.

The updated POM has been prepared by GEI Consultants, Inc. and Ramboll Americas Engineering Solutions, Inc. to:

- Address the Wis. Adm. Code NR 500 requirements
- Address the items in the April 2023 Incompleteness Determination
- Provide the Department with the baseline groundwater data required by the revised regulations (the groundwater data have been provided to the WDNR GEMS staff separately to ensure proper uploading of the data into GEMS).

The baseline data are being evaluated and site-specific PALs and ACLs will be calculated in accordance with Ch. NR 507.27 as presented in Section 4.6 of the Environmental Sampling and Analysis Plan (ESAP) Addendum. As always, additional PALs and/or ACLs may be requested as additional data are collected and reviewed. Changes to the past NR 507 Monitoring Program have been included to eliminate various detection monitoring parameters and additional information supporting this request is provided in Section 3.2 of the ESAP Addendum.

To assist the WDNR in reviewing the updated POM, GEI and Ramboll summarized how the items identified in the April 26, 2023 Incompleteness Letter were addressed. Thus for a complete record, the following documents are attached to this cover letter:

- WDNR Letter dated April 26, 2023
Incompleteness Determination for the Plan of Operation Approval Modification for Initial Permitting of Coal Combustion Residuals (CCR) Landfill for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash Landfill (License #3067)
- GEI Letter dated September 29, 2023
Plan of Operation Modification – Response to Incompleteness Determination Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash Landfill (License #3067) Town of Knowlton, Wisconsin
- Ramboll Letter dated December 19, 2023
Responses to WDNR Incompleteness Determination for the Plan of Operation Approval Modification for Initial Permitting of Coal Combustion Residuals (CCR) Landfill for the Wisconsin Public Service Weston Disposal Site #3 Ash Landfill (License #3067)

Please contact me at 414.221.2457 or eric.kovatch@wecenergygroup.com with any questions.

Sincerely,



Eric P. Kovatch
Facility Manager – Senior Environmental Consultant

cc: Matt Bachman (WDNR)

Attachments (identified above):

WDNR letter dated April 26, 2023
GEI letter dated September 29, 2023
Ramboll letter dated December 19, 2023

Enclosure:

Plan of Operation Modification
Wisconsin Public Service Weston Disposal Site #3 Ash Landfill

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W Clairemont Ave.
Eau Claire, WI 54701

Tony Evers, Governor
Adam N. Payne, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



April 26, 2023

FID #737054120
Marathon County
SW/Correspondence

Mr. Eric Kovatch, P.G. – Facility Manager
WEC Energy Group – Business Services
333 W. Everett St
Milwaukee, WI 53203

Subject: Incompleteness Determination for the Plan of Operation Approval Modification for Initial Permitting of Coal Combustion Residuals (CCR) Landfill for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash Landfill (License #3067)

Dear Mr. Kovatch:

The Department of Natural Resources (department) has reviewed for completeness the plan of operation modification for initial permitting of a CCR Landfill (“the plan”), submitted on behalf of Wisconsin Public Service Corporation (WPSC), by GEI Consultants, Inc. and Ramboll Americas Engineering Solutions, Inc. for the WPSC Weston Disposal Site No. 3 Ash Landfill. The plan includes a report and set of plan sheets titled: “Plan of Operation Modification Wisconsin Public Service Corporation Weston Disposal Site No. 3” dated and received by the department on January 31, 2023.

The department has determined the plan is not complete since the minimum requirements of chs. NR 500 to 520, Wis. Adm. Code, have not been met in accordance with s. NR 514.045, Wis. Adm. Code. The department understands the complexity of the new CCR rules and its implementation and will be available to discuss the following items while you work to prepare the addenda to your initial submittal.

The following information must be provided in order for the department to issue a determination that the plan is complete:

1. **Section NR 500.05(4)(b), Wis. Adm. Code:** Provide a Professional Geologist seal and certification statement.
2. **Section NR 504.04(4)(a), Wis. Adm. Code:** Provide additional information on the removal of the two freshwater emergent wetlands removed during construction of Cells 1 and 2 in 2015. Provide copies of the wetland permits.
3. **Section NR 504.04(4)(b), Wis. Adm. Code:** Request an Endangered Resources Review from the department and provide a discussion on required and recommended activities, and what will be done to ensure compliance with them. The results section of the Endangered Resources Preliminary Assessment in Appendix B indicates an Endangered Resources Review is needed to ensure compliance with Wisconsin’s Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16

USC ss 1531-43). An Endangered Resources Review can be requested using the following link:
<https://dnr.wi.gov/topic/ERReview/Review.html>

4. **Section NR 504.04(4)(c), Wis. Adm. Code:** Explain the presence of the two ‘lakes and open water’ features shown on the surface water data viewer map in Appendix C. One ‘open water’ feature is identified within the landfill footprint and one ‘open water’ feature is identified southeast of the landfill. Also, provide a copy of the facility’s Wisconsin Pollutant Discharge Elimination System (WPDES) permit and a copy of the facilities most recent stormwater pollution prevention plan (SWPPP).
5. **Section NR 504.04(3)(i), Wis. Adm. Code:** Provide additional discussion on overburden soil type and depth, differences in soil type across the approved landfill, and the slope of the underlying bedrock and their impact on the unstable area determination for the site.
6. **Section NR 504.06, Wis. Adm. Code:** Provide the information required for the design and construction of the liner and leachate collection system.
 - a. Sections NR 504.06(5)(j)1 and 5, Wis. Adm. Code: Provide the information required in these code cites for sump sizing and design.
 - b. Sections NR 504.06(5)(l), (r), and (t), Wis. Adm. Code: Confirm that the leachate transfer system design will adhere to these code requirements.
7. **Section NR 504.07, Wis. Adm. Code:** Provide the information required for the design and construction of the final cover.
 - a. Sections NR 504.07(4)(a)8, 11, and 16, Wis. Adm. Code: Provide the information required in these code cites regarding the GCL and soil barrier layer for final cover construction.
 - b. Section NR 504.07(8), Wis. Adm. Code: Provide the fertilizer and mulch application rates to be used to establish vegetation on the final cover and clarify the methods of prescribed burning proposed to be done on the final cover post closure.
8. **Section NR 507.15(3), Wis. Adm. Code:** Provide the following information for general environmental monitoring requirements.
 - a. Sections NR 507.15(3)(a), (c), and (L)4., Wis. Adm. Code: Provide justification for the following items regarding the CCR groundwater monitoring system.
 - i. Section NR 507.15(3)(a), Wis. Adm. Code: The adequacy of the CCR wells to yield groundwater samples that accurately represent downgradient groundwater quality passing the waste boundary, and that the downgradient monitoring wells are installed to ensure detection of groundwater contamination in the uppermost aquifer, including all known or suspected contaminant pathways.
 - ii. Section NR 507.15(3)(c)1., Wis. Adm. Code: The downgradient and upgradient identification of groundwater wells that make up the CCR groundwater monitoring system.
 - iii. Section NR 507.15(3)(c)2., Wis. Adm. Code: Location of monitoring wells to accurately represent the quality of groundwater passing the waste boundary of the CCR landfill.

- iv. Section NR 507.15(3)(L)4., Wis. Adm. Code: The CCR groundwater monitoring system downgradient well's distance from the waste boundary.

- b. Section NR 507.15(3)(b), Wis. Adm Code: Provide site-specific technical data on the below listed items and provide additional discussion on how that information was considered when deciding the number, spacing, and depths of monitoring wells that are part of the proposed CCR groundwater monitoring system.
 - i. Aquifer thickness.
 - ii. Groundwater flow rate.
 - iii. Seasonal and temporal fluctuations in groundwater flow.
 - iv. Thicknesses, hydraulic conductivities, porosities, and effective porosities for the saturated and unsaturated geologic units overlying the uppermost aquifer and materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer.

- c. Section NR 507.15(3)(b), Wis. Adm. Code: Provide a revised Uppermost Aquifer Groundwater Elevation Map that includes at a minimum the entire approved landfill area, the proposed CCR wells, other groundwater monitoring wells, the landfill footprint, and groundwater flow direction.

- d. Section NR 507.15(3)(c)2., Wis. Adm. Code: Provide a revised CCR groundwater monitoring system that includes additional monitoring wells as necessary to accurately represent the background groundwater quality in the uppermost aquifer that has not been affected by leakage from the CCR landfill and the quality of groundwater passing the waste boundary of the CCR landfill for the entire approved landfill.

- e. Section NR 507.15(3)(e), Wis. Adm. Code: Provide documentation of the design, installation, and development for all monitoring wells that are part of the CCR groundwater monitoring system including a groundwater well information form.

- f. Sections NR 507.15(3)(f), (g), (h), (k), and (L), Wis. Adm. Code: Provide a revised Sampling and Analysis Plan that addresses the following items.
 - i. Section NR 507.15(3)(f), Wis. Adm. Code: That a Wisconsin Certified Laboratory will be used for sampling. Please be aware that a Wisconsin Certified Laboratory is a regulated definition under s. NR 140.05(4), Wis. Adm. Code.
 - ii. Section NR 507.15(3)(g), Wis. Adm. Code: That specifies that the CCR landfill owner or operator obtain and analyze samples in accordance with the sampling plan and the requirements under s. NR 507.17, Wis. Adm. Code.
 - iii. Section NR 507.15(3)(h), Wis. Adm. Code: That groundwater elevations in each CCR well will be measured immediately prior to purging, each time groundwater is sampled.
 - iv. Section NR 507.15(3)(h), Wis. Adm. Code: That determination of the rate and direction of groundwater flow will be determined each time groundwater is sampled and report the results to the department accordance with s. NR 507.26 Wis. Adm. Code.

- v. Section NR 507.15(3)(h), Wis. Adm. Code: That groundwater elevation in wells that monitor the same CCR landfill be measured within a timeframe short enough to avoid temporal variations in groundwater flow that could preclude accurate determination of groundwater flow rate and direction.
 - vi. Section NR 507.15(3)(k), Wis. Adm. Code: Provide a statement for the owner/operator to notify the department in writing within 60 days of completing sampling and analysis at any CCR well when a groundwater standard has been attained or exceeded in accordance with s. NR 507.15(3)(k) Wis. Adm. Code.
 - vii. Section NR 507.15(3)(L)2, Wis. Adm. Code: Specify that the CCR landfill owner or operator inform the department in accordance with s. NR 507.26 Wis. Adm. Code of any CCR well that purges dry, is damaged or obstructed, or is in any way rendered such that a sample was unable to be collected during a scheduled sampling event.
 - viii. Section NR 507.15(3)(L)3., Wis. Adm. Code: State that the owner or operator of the CCR landfill will notify the department and respond in accordance with s. NR 507.30 Wis. Adm. Code.
- g. Section NR 507.15(3)(i), Wis. Adm. Code: Provide baseline groundwater monitoring data for copper, manganese, silver, zinc, alkalinity, hardness, and nitrate + nitrite as nitrogen.
- h. Section NR 507.15(3)(m), Wis. Adm. Code: Provide a revised Annual Groundwater Monitoring & Corrective Action Report section that specifies the below listed items.
- i. That the report will be submitted no later than January 31 of the year following the calendar year a groundwater monitoring system has been approved by the department, and annually thereafter.
 - ii. That the annual groundwater monitoring and corrective action report contain, at a minimum, the information included in ss. NR 507.15(3)(m)1, Wis. Adm. Code.
9. **Section NR 507.16(1), Wis. Adm. Code:** Provide the following information for the sampling plan.
- a. Section NR 507.16(1)(a), Wis. Adm. Code: Provide an updated site map that includes all sample points and devices including all groundwater monitoring wells, piezometers, lysimeters, leachate head wells, the leachate tank, sedimentation basin, and any other sampling points on site.
 - b. Section NR 507.16(1)(c), Wis. Adm. Code: Provide procedures to determine odor, and color.
 - c. Section NR 507.16(1)(f), Wis. Adm. Code: Provide a narrative on procedures for and the frequency at which trip blanks will be collected and processed.
 - d. Section NR 507.16(1)(h), Wis. Adm. Code: Provide special procedures to sample leachate headwells and other devices.
10. **Section NR 507.26(3), Wis. Adm. Code:** Provide a revised executive summary that states that analytical results, field data, and groundwater elevations will be submitted in the proper electronic format for upload to the “Groundwater and Environmental Monitoring System (GEMS).”

11. **Sections NR 514.045(1)(c)1 through 3, Wis. Adm. Code:** Provide a demonstration addressing the stability items of this section.
12. **Section NR 514.07(10), Wis. Adm. Code:** Provide additional information for the operational plans required for the CCR landfill.
 - a. Section NR 514. 07(10)(a)3, Wis. Adm. Code: Provide an updated fugitive dust control plan that includes a description of the procedures the owner will follow to periodically assess the effectiveness of the control plan. At a minimum, the assessment shall include a visual inspection at least every 7 days.
 - b. Section NR 514. 07(10)(b)3, Wis. Adm. Code: Provide an updated run-on and run-off control system plan that includes construction procedures and a schedule for construction of the storm water control structures.
 - c. Sections NR 514. 07(10)(c)6 and 7, Wis. Adm. Code: Update the closure plan to include the information required in these code cites. Including the anticipated schedule of final cover construction activities including the year and number of acres of each construction event.
 - d. Section NR 514.07(10)(d)1, Wis. Adm. Code: Provide a long-term care schedule that includes the activities specified in s. NR 514.06(11), Wis. Adm. Code and clarify whether mowing once every five years is sufficient to prevent woody vegetation from establishing on the final cover. Please be aware that the long-term care period is 40 years for purposes of record keeping and proof of owner financial responsibility, and that monitoring and maintenance of the landfill is required in perpetuity unless an approval is granted by the department to discontinue monitoring after the 40-year long-term care period is completed.
13. **Sections NR 520.07(2) and (3), Wis. Adm. Code:** Provide updated cost estimates for closure and long-term care as needed to reflect above items.
14. Provide a chronological listing of all previous department issued plan of operation and modification approvals, including expedited plan modifications, along with a listing of their approval conditions, indicating the status (active, completed or superseded) of each condition.
15. Provide a revised monitoring plan drawing (PM-16) that clearly shows the location of groundwater monitoring wells LS-48R, LS-57, and LS-106.
16. Please note that the proposed final cover alternative which includes 2-ft of compacted fly ash overlain by a geomembrane does not meet code requirements and therefore will not be approved.

This incompleteness determination is not a denial of the plan, but merely indicates that additional information is needed for the department to determine the plan is complete. Submittal of this information does not ensure approval, nor does it preclude the department from requiring additional information if continued review indicates it is needed.

If you have any question regarding this letter, please contact Tony Peterson at (715) 491-8546 or anthony.peterson@wisconsin.gov, or Matthew Bachman at (608) 512-3233 or matthew.bachman@wisconsin.gov.

Sincerely,



John Morris, Professional Soil Scientist, Regional Supervisor
Northern and West Central Regions
Waste and Materials Management Program

cc: John Trast – GEI Consultants (jtrast@geiconsultants.com)
Andrew Schwoerer – GEI Consultants (aschwoerer@geiconsultants.com)
Nate Keller – Ramboll (nate.keller@ramboll.com)
Eric Tlachac – Ramboll (eric.tlachac@ramboll.com)
Tony Peterson – DNR/WA (anthony.peterson@wisconsin.gov)
Matthew Bachman – DNR/WA (matthew.bachman@wisconsin.gov)
Joseph Lourigan – DNR/WA (joseph.lourigan@wisconsin.gov)
Malena Grimm - DNR/WA (malena.grimm@wisconsin.gov)



Consulting
Engineers and
Scientists

September 29, 2023
Project 2203724

VIA EMAIL: eric.kovatch@wecenergygroup.com

Mr. Eric Kovatch, P.G.
WEC Business Services, LLC
333 West Everett Street
Milwaukee, Wisconsin 53203

**Re: Plan of Operation Modification – Response to Incompleteness Determination
Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Ash
Landfill (License #3067)
Town of Knowlton, Wisconsin**

Dear Mr. Kovatch:

GEI Consultants, Inc. (GEI) is pleased to provide WEC Energy Group (WEC) with this letter summarizing our responses to the Wisconsin Department of Natural Resources (WDNR) incompleteness determination for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 (WDS3) Ash Landfill (WDNR License No. 3067) Plan of Operation Modification, received on April 26, 2023. The WDNR requested additional information related to the design, operation, environmental monitoring, and financial responsibility for the WDS3 Ash Landfill Plan of Operation Modification as required by the updated NR 500 of the Wisconsin Administrative Code.

This letter compiles all design and operation comments by the WDNR in the incompleteness determination and includes GEI's response and explanation of how each comment was addressed in the Plan of Operation Modification, dated September 29, 2023. Ramboll has provided responses to the environmental monitoring comments in a separate letter and their updates are incorporated into the Plan of Operation Modification submittal in Appendix O.

WDNR Comments and GEI's Responses

Comment 1: Section NR 500.05(4)(b), Wis. Adm. Code: Provide a Professional Geologist seal and certification statement.

Response to Comment 1: The Professional Geologist seal and certification statement is included in Ramboll's Environmental Sampling and Analysis Plan, located in Appendix O.

Comment 2: Section NR 504.04(4)(a), Wis. Adm. Code: Provide additional information on the removal of the two freshwater emergent wetlands removed during construction of Cells 1 and 2 in 2015. Provide copies of the wetland permits.

Response to Comment 2: Information on the removal of the two freshwater emergent wetlands is discussed in Section 3.1 and Appendix A in the Plan of Operation Modification.

Additionally, the wetland removal permit issued by the United States Army Corps of Engineers in the Weston Disposal Site No. 3 Expansion Plan of Operation, dated March 2014, have been added to Appendix A.

Comment 3: Section NR 504.04(4)(b), Wis. Adm. Code: Request an Endangered Resources Review from the department and provide a discussion on required and recommended activities, and what will be done to ensure compliance with them. The results section of the Endangered Resources Preliminary Assessment in Appendix B indicates an Endangered Resources Review is needed to ensure compliance with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). An Endangered Resources Review can be requested using the following link: <https://dnr.wi.gov/topic/ERReview/Review.html>.

Response to Comment 3: An ER Review was request from the department and is attached in Appendix B and discussed in Section 3.2 in the Plan of Operation Modification. Based on the ER Review, no further actions are required or recommended based on the presence of two endangered turtles in the area.

Comment 4: Section NR 504.04(4)(c), Wis. Adm. Code: Explain the presence of the two 'lakes and open water' features shown on the surface water data viewer map in Appendix C. One 'open water' feature is also identified within the landfill footprint and one 'open water' featured is identified southeast of the landfill. Also, provide a copy of the facility's Wisconsin Pollutant Discharge Elimination System (WPDES) permit and a copy of the facilities most recent stormwater pollution prevention plan (SWPPP).

Response to Comment 4: GEI has provided an explanation in Section 3.3 of the Plan of Operation Modification that addresses the presence of the two 'lakes and open water' features shown on the surface water data viewer map in Appendix C. Additionally, GEI has attached a copy of the WPDES permit and the most recent SWPPP in Appendix C.

Comment 5: Section NR 504.04(3)(i), Wis. Adm. Code: Provide additional discussion on overburden soil type and depth, difference in soil type across the approved landfill, and the slope of the underlying bedrock and their impact on the unstable area determination for the site.

Response to Comment 5: GEI has attached a Location Restrictions Demonstration, signed and stamped on October 12, 2018, that states WDS3 is not located in in an unstable area that could result in significant differential settlement or mass movement damaging the facility. Additionally, the AECOM Feasibility Report – Proposed Weston Disposal Site No. 3 Expansion, prepared in August 2012, provides a discussion on the unstable area determination for the site.

Comment 6a: Sections NR 504.06(5)(j)1 and 5, Wis. Adm. Code: Provide the information required in this code cites for sump sizing and design.

Response to Comment 6a: Sump volume and pump capacity calculations have been added to Appendix H to comply with NR 504.06(j)1. Furthermore, the area of the sump and depth of gravel fill is sized to allow for remedial installation of access and hardware for the removal of leachate, as discussed in Section 5.4.5. An HDPE plate is designed to be installed at the base of the sump to provide protection, as shown on Drawing PM-25.

Comment 6b: Sections NR 504.06(5)(l), (r), and (t), Wis. Adm. Code: Confirm that the leachate transfer system design will adhere to these code requirements.

Response to Comment 6b: GEI has provided the information required in this code cites in Section 5.4.5 of the Plan of Operation Modification, and Drawings PM-24, PM-25, and PM-26.

Comment 7a: Sections NR 504.07(4)(a)8, 11, and 16, Wis. Adm. Code: Provide the information required in this code cites regarding the GCL and soil barrier layer for final cover construction.

Response to Comment 7a: GEI has added the information required in s. NR 504.07(4)(a)8 and 11 to the CQA Plan in Appendix N. The information in s. NR 504.07(4)(a)(16) is shown on Drawing PM-27, Detail 6/27.

Comment 7b: Section NR 504.07(8), Wis. Adm. Code: Provide the fertilizer and mulch application rates to be used to establish vegetation on the final cover and clarify the methods of prescribed burning proposed to be done on the final cover post closure.

Response to Comment 7b: Fertilizer and mulch application rates are provided in Section 5.8.5. Additionally, the suggestion that burning may be employed to control invasive species and woody vegetation was kept in the Post-Closure Plan (Appendix L), as it is a common native prairie restoration practice and could potentially be used on the final cover, if necessary.

Comment 8: Provide the following information for general environmental monitoring requirements.

Response to Comment 8: Response to be provided by Ramboll in a separate letter.

Comment 9: Provide the following information for the sampling plan.

Response to Comment 9: Response to be provided by Ramboll in a separate letter.

Comment 10: Provide a revised executive summary that states that analytical results, field data, and groundwater elevations will be submitted in the proper electronic format for upload to the "Groundwater and Environmental Monitoring System (GEMS)."

Response to Comment 10: Response to be provided by Ramboll in a separate letter.

Comment 11: Sections NR 514.045(1)(c)1 through 3, Wis. Adm. Code: Provide a demonstration addressing the stability items of this section.

Response to Comment 11: GEI has provided the Locations Restrictions Demonstration in Appendix F to comply with the requirements of NR 514.045(1)(c)1 through 3.

Comment 12a: Section NR 514.07(10)(a)3, Wis. Adm. Code: Provide an updated fugitive dust control plan that includes a description of the procedures the owner will follow to periodically assess the effectiveness of the control plan. At a minimum, the assessment shall include a visual inspection at least every 7 days.

Response to Comment 12a: An updated Fugitive Dust Control Plan is attached in Appendix J and includes the requirements outlined in s. NR 514.07(10)(a)3.

Comment 12b: Section NR 514.07(10)(b)3, Wis. Adm. Code: Provide an updated run-on and run-off control system plan that includes construction procedures and a schedule for construction of the storm water control structures.

Response to Comment 12b: An updated Run-on and Run-off Control Plan is attached in Appendix K and includes the requirements outlined in s. NR 514.07(10)(b)3.

Comment 12c: Sections NR 514.07(10)(c)6 and 7, Wis. Adm. Code: Update the closure plan to include the information required in this code cites. Including the anticipated schedule of final cover construction activities including the year and number of acres of each construction event.

Response to Comment 12c: GEI has updated the Closure Plan in Appendix L to include a closure schedule that outlines the estimated closure dates for each phase of construction at the WDS3 Ash Landfill. Additionally, a preliminary closure schedule for Area A was created and attached that describes the sequential steps that will be taken to close the CCR landfill, including installation of the final cover system, and timeframes to complete Area A closure.

Comment 12d: Section NR 514.07(10)(d)1, Wis. Adm. Code: Provide a long-term care schedule that includes the activities specified in s. NR 514.06(11), Wis. Adm. Code and clarify whether mowing once every five years is sufficient to prevent woody vegetation from establishing on the final cover. Please be aware that the long-term care period is 40 years for purposes of record keeping and proof of owner financial responsibility, and that monitoring, and maintenance of the landfill is required in perpetuity, unless an approval is granted by the department to discontinue monitoring after the 40-year long-term care period is completed.

Response to Comment 12d: A long-term care schedule has been added to the Post-Closure Plan in Appendix M that includes activities and frequencies specified in s. NR 514.06(11), such as final cover repairs and vegetation maintenance, inspections of the stormwater control structures and final cover system, leachate collection system cleaning, and environmental monitoring of the groundwater and leachate.

In the Post-Closure Plan, mowing the final cover system is specified to occur annually for the first five years and then once every five years for the duration of post-closure care. Annual inspections to the final cover system will confirm that this duration of mowing has prevented woody vegetation from establishing on the final cover system. Mowing on a more frequent basis can be implemented if the annual inspections determine that mowing once every five years has not prevented the establishment of woody vegetation.

Lastly, the Post-Closure Plan was modified to change the long-term care period to 40-years and states that, “monitoring of the landfill is required in perpetuity, unless an approval is granted by the department to discontinue monitoring after the 40-year long-term care period is completed.”

Comment 13: Sections NR 520.07(2) and (3), Wis. Adm. Code: Provide updated cost estimates for closure and long-term care as needed to reflect above items.

Response to Comment 13: Closure and long-term care cost estimates are provided in the Closure Plan (Appendix L) and Post-Closure Plan (Appendix M), respectively.

Comment 14: Provide a chronological listing of all previous department issued plan of operation and modification approvals, including expedited plan modifications, along with a listing of their approval conditions, indicating the status (active, completed or superseded) of each condition.

Response to Comment 14: A complete and chronological list of all previous department issued plan of operation modification approvals has been prepared and is included at the beginning of the Plan of Operation Modification submittal.

Comment 15: Provide a revised monitoring plan drawing (PM-16) that clearly shows the location of groundwater monitoring wells LS-48R, LS-57, and LS-106.

Response to Comment 15: GEI has updated Drawing PM-16 to clearly show the location of groundwater monitoring wells LS-48R and LS-106. LS-57 was abandoned during the construction of Cell 1 and Cell 2 and has been removed from PM-16.

Comment 16: Please note that the proposed final cover alternative which includes 2-ft of compacted fly ash overlain by a geomembrane does not meet code requirements and therefore will not be approved.

Response to Comment 16: The final cover design has been revised to include either a 24-inch-thick clay capping layer or a 24-inch-thick soil barrier layer overlaid by a geosynthetic clay liner (GCL). The option to use a 24-inch-thick compacted flue gas desulfurization (FGD) filter cake/fly ash barrier layer has been removed from the Plan of Operation Modification. The revised final cover design is discussed in Section 5.8 of the Plan of Operation, the Closure Plan (Appendix L), the CQA Plan (Appendix M), and detailed on Drawing PM-27.

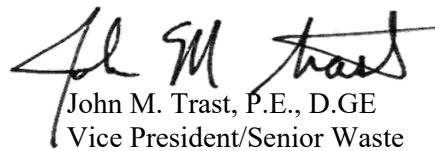
Ramboll has provided responses to the environmental monitoring Comments 8 through 10 in a separate letter and will be incorporated into the final response to the WDNR after approval of the draft responses by WEC. If you have any questions regarding these responses, please contact Mr. John Trast at 920.455.8299 or Mr. Andrew Schwoerer at 920.471.0652.

Sincerely,

GEI CONSULTANTS, INC.



Andrew J. Schwoerer, P.G.
Project Professional



John M. Trast, P.E., D.GE
Vice President/Senior Waste
Management Leader

AJS:amp

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Eric Kovatch
Senior Environmental Consultant – Waste, Recycling & Disposal
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Responses to WDNR Incompleteness Determination for the Plan of Operation Approval Modification for Initial Permitting of Coal Combustion Residuals (CCR) Landfill for the Wisconsin Public Service Corporation Weston Disposal Site No. 3 (WDS3) Ash Landfill (License #3067)

December 19, 2023

Dear Eric:

Per your request, Ramboll Americas Engineering Solutions, Inc. (Ramboll) has drafted the following responses to the subject letter from the Wisconsin Department of Natural Resources' (WDNR's) dated April 26, 2023.

Ramboll
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WDNR Comment:

- 1. Section NR 500.05(4)(b), Wis. Adm. Code: Provide a Professional Geologist seal and certification statement.**

Response:

A Professional Geologist seal and certification statement was provided with the Environmental Sampling and Analysis Plan (ESAP) Addendum contained in Appendix O.

Ref. 1940104079

WDNR Comment:

- 8. Section NR 507.15(3), Wis. Adm. Code: Provide the following information for general environmental monitoring requirements.**
 - a. Section NR 507.15(3)(a), (c), and (L)4, Wis. Adm. Code: Provide justification for the following items regarding the CCR groundwater monitoring system.**
 - i. Section NR 507.15(3)(a), Wis. Adm. Code: The adequacy of the CCR wells to yield groundwater samples that accurately represent downgradient groundwater quality passing the waste boundary, and that the downgradient monitoring wells are installed to ensure detection of groundwater contamination in the uppermost aquifer, including all known or suspected contaminant pathways.**

Response: The downgradient CCR wells (LS-100, LS-105, LS-106, and LS-107) are located in the observed directions of groundwater flow at the site and as close to the current waste boundary (Cells 1 and 2) as possible without being within the footprint for planned future cells. Four downgradient wells are proposed; one more than the minimum number required (three) by Ch. NR 507.15(3)(c)1. These wells are screened in the uppermost aquifer (weathered bedrock and overlying silty sand). Due to the shallow depth of the uppermost aquifer, no potential contaminant migration pathways to the uppermost aquifer were identified.

WDNR Comment:

8.a.ii. Section NR 507.15(3)(c)1., Wis. Adm. Code: The downgradient and upgradient identification of groundwater wells that make up the CCR groundwater monitoring system.

Response: As noted in Section 4.2 and Table 2-1 of the ESAP Addendum, the proposed Ch. NR 507.15(3) monitoring network (CCR groundwater monitoring system) will consist of one background monitoring well (LS-101) and four downgradient monitoring wells (LS-100, LS-105, LS-106, and LS-107).

WDNR Comment

8.a.iii. Section NR 507.15(3)(c)2., Wis. Adm. Code: Location of the monitoring wells to accurately represent the quality of groundwater passing the waste boundary of the CCR landfill.

Response: See the response above for Comment 8.a.i.

WDNR Comment

8.a.iv. Section NR 507.15(3)(L)4., Wis. Adm. Code: The CCR groundwater monitoring system downgradient well's distance from the waste boundary.

Response: The location of LS-107 is positioned downgradient of both the waste boundary and leachate force main. It is located at the toe of the containment berm for the landfill. Ch. NR 507.15(3)(L)4 specifies that "the waste boundary shall include the horizontal space taken up by any liner, dike, or other barrier designed to contain CCR waste".

The locations of LS-100, LS-105, and LS-106 were constrained by the locations of Storm Water Basins No. 2 and 3 and they are located at the following distances from the toe of the containment berm for the landfill (related figure markup attached):

- *LS-100 – approximately 135 ft*
- *LS-105 – approximately 130 ft*
- *LS-106 – approximately 85 ft*

WDNR Comment

8b. Section NR 507.15(3)(b), Wis. Adm Code: Provide site-specific technical data on the below listed items and provide additional discussion on how that information was considered when deciding the number, spacing, and depths of monitoring wells that are part of the proposed CCR groundwater monitoring system.

- i. Aquifer thickness.**
- ii. Groundwater flow rate.**
- iii. Seasonal and temporal fluctuations in groundwater flow.**
- iv. Thickness, hydraulic conductivities, porosities, and effective porosities for the saturated and unsaturated geologic units overlying the uppermost aquifer and materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer.**

Response: As noted in Section 2 of the ESAP Addendum, the uppermost aquifer varies in thickness in the vicinity of the WDS3 from 0.5 ft to 20 ft and has a saturated hydraulic conductivity of approximately 1×10^{-4} centimeters per second (cm/s). Competent bedrock underlying the uppermost aquifer represents its lower boundary; observed hydraulic conductivity values for this material ranged from approximately 2.1×10^{-5} to 9.0×10^{-7} cm/s. The undulating surface of the bedrock (see bedrock surface contour map added to Appendix B in Revision 1 of the ESAP Addendum) is the primary driver for groundwater flow. The proposed CCR groundwater monitoring system positions an upgradient well (LS-101) in the only possible upgradient location near active Cells 1 & 2 accessible for installation around Storm Water Basin No. 1. It also positions wells in locations downgradient based upon the undulation of the bedrock surface beneath active Cells 1 & 2 and the landfill's groundwater gradient control system that were accessible for well installation around Storm Water Basins No. 2 and 3.

WDNR Comment

8c. Section NR 507.15(3)(b), Wis. Adm. Code: Provide a revised Uppermost Aquifer Groundwater Elevation Map that includes at a minimum the entire approved landfill area, the proposed CCR wells, other groundwater monitoring wells, the landfill footprint, and groundwater flow direction.

Response: See the revised groundwater elevation contour map (Figure 2-2) in Revision 1 of the ESAP Addendum.

WDNR Comment

8d. Section NR 507.15(3)(c)2., Wis. Adm. Code: Provide a revised CCR groundwater monitoring system that includes additional monitoring wells as necessary to accurately represent the background groundwater quality in the uppermost aquifer that has not been affected by leakage from the CCR landfill and the quality of groundwater passing the waste boundary of the CCR landfill for the entire approved landfill.

Response: Ch. NR 507.15(3)(L)4 specifies that “for the purposes of determining the point of standards application for a groundwater quality exceedance at a CCR well, the horizontal distance for the design management zone under s. NR 140.22(3) for a CCR landfill is 0 ft from the waste boundary and may not be expanded by the department under s. NR 140.22(3)(b)”. Further, as noted in the response for Comment 8.a.iv, “the waste boundary shall include the horizontal space taken up by any liner, dike, or other barrier designed to contain CCR waste”.

Consequently, downgradient CCR wells were positioned near Cells 1 & 2, rather than throughout the entire approved landfill footprint, because this is the only area of the landfill currently containing CCR. Downgradient monitoring wells in areas of the approved landfill footprint other than near Cells 1 & 2 would not meet the Ch. NR 507.15(3)(L)4 requirement to be 0 ft from the waste boundary. As noted in Section 4.2 of the ESAP Addendum, additional CCR wells will be installed and incorporated into the monitoring system as permitted cells are constructed in the future following WDNR approval of related Plan of Operation Modifications.

WDNR Comment

8e. Section NR 507.15(3)(e), Wis. Adm. Code: Provide documentation of the design, installation, and development for all monitoring wells that are part of the CCR groundwater monitoring system including a groundwater well information form.

Response: Documentation was provided in the ESAP Addendum for only CCR wells LS-106 and LS-107 because they are new to the existing Ch. NR 507 monitoring network. CCR wells LS-100, LS-101, and LS-105 are included in the existing Ch. NR 507 monitoring network. Documentation for CCR wells LS-100, LS-101, and LS-105 was included with the 2012 Feasibility Study cited in the ESAP Addendum¹. This documentation has also been included in Appendix A in Revision 1 of the ESAP Addendum for completeness.

WDNR Comment

8f. Sections NR 507.15(3)(f), (g), (h), (k), and (L), Wis. Adm. Code: Provide a revised Sampling and Analysis Plan that addresses the following items.

- i. Section NR 507.15(3)(f), Wis. Adm. Code: That a Wisconsin Certified Laboratory will be used for sampling. Please be aware that a Wisconsin Certified Laboratory is a regulated definition under s. NR 140.05(4), Wis. Adm. Code.**

Response: Secs 4.3 and 4.4 of the ESAP Addendum require that baseline samples were analyzed by a Wisconsin Certified Laboratory and subsequent samples collected for Detection Monitoring will be analyzed by a Wisconsin Certified Laboratory. In addition, Sec 1.3.1 of the Sampling & Analysis Plan submitted as Appendix C of the ESAP Addendum previously required the use of a “state or nationally certified laboratory”. This section has been revised to require a Wisconsin Certified Laboratory, and the revised Sampling & Analysis Plan has been included as Appendix C in Revision 1 of the ESAP Addendum.

¹ Feasibility Report, Proposed Weston Disposal Site No. 3 Expansion, Town of Knowlton, Marathon County, Wisconsin. AECOM, August 2012.

WDNR Comment

8.f.ii. Section NR 507.15(3)(g), Wis. Adm. Code: That specifies that the CCR landfill owner or operator obtain and analyze samples in accordance with the sampling plan and the requirements under s. NR 507.17, Wis. Adm. Code.

Response: The Sampling and Analysis Plan submitted as Appendix C of the ESAP Addendum contains content required by Ch. NR 507.17, Wis. Adm. Code, as follows:

- *Ch. NR 507.17(1)(a) – Water level elevation measurements: Sec 4.1.2 and Standard Operating Procedure (SOP) 07-07-05 “Groundwater (and NAPL) Elevation Measurements” included in Attachment C.*
- *Ch. NR 507.17(1)(b) – Physical appearance: Sec 4.4.1 “Field Notebook” in SOPs 07-07-13 “Low-Flow Groundwater Sampling” and 07-07-07 “Groundwater Sampling” included in Attachment C.*
- *Ch. NR 507.17(1)(c) – Chemical measurements: Sec 4.1.3.2 and SOPs 07-07-13 “Low-Flow Groundwater Sampling” (Sec 3.2.4 “Field Procedure”; see “Monitoring Water Quality Parameters” section) and 07-07-07 “Groundwater Sampling” (Sec 3.3.2 “Groundwater Quality Parameters”) included in Attachment C.*
- *Ch. NR 507.17(2) – Sample Collection: this section requires that samples be collected in accordance with the approved sampling plan prepared in accordance with Ch. NR 507.16, including the following elements:*
 - *Ch. NR 507.16(1)(a) - site map showing locations of all sample points and devices: see Figure 2-1 in Revision 1 of the ESAP Addendum.*
 - *Ch. NR 507.16(1)(b) - sample schedule: see Sec 4.4 of the ESAP Addendum.*
 - *Ch. NR 507.16(1)(c) - procedures for field measurements: see Sec 4.1.3.2 and SOPs 07-07-13 “Low-Flow Groundwater Sampling” and 07-07-07 “Groundwater Sampling” included in Attachment C.*
 - *Ch. NR 507.16(1)(d) – procedures for purging wells: see Sec 4.1.3.2, 5, and SOPs 07-07-13 “Low-Flow Groundwater Sampling”, 07-07-07 “Groundwater Sampling”, and 07-04-09 “Equipment Decontamination” included in Attachment C.*
 - *Ch. NR 507.16(1)(e) – procedures for obtaining samples from wells: see Secs 4.1.3.2, 4.1.3.3, 5, Table 1, and SOPs 07-07-13 “Low-Flow Groundwater Sampling”, 07-07-07 “Groundwater Sampling”, and 07-04-09 “Equipment Decontamination” included in Attachment C; the volume of sample required for analysis, as required in Ch. NR 507.16(1)(e)(2), is specified by the laboratory analyzing the samples.*
 - *Ch. NR 507.16(1)(f) – procedures for establishing field quality assurance and quality control: see Sec 6.3 and SOP 07-04-07 “Quality Control Samples”.*
 - *Ch. NR 507.16(1)(g) – special procedures to sample water supply wells: not applicable.*
 - *Ch. NR 507.16(1)(h) – special procedures to sample leachate headwells and other devices: not applicable.*
 - *Ch. NR 507.16(1)(i) – chain of custody procedures: see Sec 6.4 and SOPs 07-07-13 “Low-Flow Groundwater Sampling”, 07-07-07 “Groundwater Sampling”, and 07-03-03 “Chain-of-Custody” included in Attachment C.*
- *Ch. NR 507.17(3) – Analytical parameters: see Sec 4.3 through 4.5 of the ESAP Addendum.*
- *Ch. NR 507.17(4) – Analytical methods: see Secs 6.2 and 7.*
- *Ch. NR 507.17(5) – Laboratory requirements: see Secs 4.3 and 4.4 of the ESAP Addendum and Sec 7 of the Sampling & Analysis Plan submitted as Appendix C of the ESAP Addendum.*

- Ch. NR 507.17(6) – Data reporting requirements: Section 7 has been revised to include the requirements of Ch. NR 507.26(3)(b); the revised Sampling & Analysis Plan has been included as Appendix C in Revision 1 of the ESAP Addendum.
- Ch. NR 507.17(7) – Other/test requirements: the requirements for field pH and conductivity, turbidity, water elevation, and temperature tests are specified in Sec 4.1 and SOPs 07-07-13 “Low-Flow Groundwater Sampling”, 07-07-05 “Groundwater (and NAPL) Elevation Measurements”, and 07-07-07 “Groundwater Sampling” included in Attachment C; the other tests specified in Ch. NR 507.17(7) are not applicable.

WDNR Comment

8.f.iii Section NR 507.15(3)(h), Wis. Adm. Code: That groundwater elevations in each CCR well will be measured immediately prior to purging, each time groundwater is sampled.

Response: See SOPs 07-07-13 “Low-Flow Groundwater Sampling” and 07-07-07 “Groundwater Sampling” included in Attachment C of the Sampling and Analysis Plan submitted as Appendix C of the ESAP Addendum.

WDNR Comment

8.f.iv Section NR 507.15(3)(h), Wis. Adm. Code: That determination of the rate and direction of groundwater flow will be determined each time groundwater is sampled and report the results to the department accordance with s. NR 507.26 Wis. Adm. Code.

Response: Sec 4.1.2 of the Sampling and Analysis Plan submitted as Appendix C of the ESAP Addendum has been revised to include this requirement; the revised Sampling & Analysis Plan has been included as Appendix C in Revision 1 of the ESAP Addendum.

WDNR Comment

8.f.v Section NR 507.15(3)(h), Wis. Adm. Code: That groundwater elevation in wells that monitor the same CCR landfill be measured within a timeframe short enough to avoid temporal variations in groundwater flow that could preclude accurate determination of groundwater flow rate and direction.

Response: See Sec 4.1.2 of the Sampling and Analysis Plan submitted as Appendix C of the ESAP Addendum and Standard Operating Procedure (SOP) 07-07-05 “Groundwater (and NAPL) Elevation Measurements” included in Attachment C to the Sampling and Analysis Plan.

WDNR Comment

8.f.vi. Section NR 507.15(3)(k), Wis. Adm. Code: Provide a statement for the owner/operator to notify the department in writing within 60 days of completing sampling and analysis at any CCR well when a groundwater standard has been attained or exceeded in accordance with s. NR 507.15(3)(k) Wis. Adm. Code.

Response: See Sec 4.8.1 of the ESAP Addendum

WDNR Comment

8.f.vii. Section NR 507.15(3)(L)2, Wis. Adm. Code: Specify that the CCR landfill owner or operator inform the department in accordance with s. NR 507.26 Wis. Adm. Code of any CCR well that purges dry, is damaged or obstructed, or is in any way rendered such that a sample was unable to be collected during a scheduled sampling event.

Response: Sec 4.7.2 of the ESAP Addendum specifies that any deviations from the sampling plan will be submitted to the WDNR within 60 days of the end of the sampling period and proposed actions to address issues will be included with the documentation. This section specifically references wells not able to be sampled, which would include for the reasons stated in WDNR's comment.

WDNR Comment

8.f.vii. Section NR 507.15(3)(L)3., Wis. Adm. Code: State that the owner or operator of the CCR landfill will notify the department and respond in accordance with s. NR 507.30 Wis. Adm. Code.

Response: See Sec 4.8 of the ESAP Addendum

WDNR Comment

8g. Section NR 507.15(3)(i), Wis. Adm. Code: Provide baseline groundwater monitoring data for copper, manganese, silver, zinc, alkalinity, hardness, and nitrate + nitrite as nitrogen.

Response: Baseline data was collected on approximately a monthly frequency throughout 2023. Data from the first three sampling events in February, March, and April 2023 were submitted with the June 28, 2023 GEMS submittal (enclosed for reference). Data from the remaining five sampling events in June, July, August, September, and October 2023, and from prior sampling events for 40 C.F.R. Part 257 Subpart D compliance between 2016 and 2022, are being submitted at the same time as this letter (also enclosed for reference).

WDNR Comment

8h. Section NR 507.15(3)(m), Wis. Adm. Code: Provide a revised Annual Groundwater Monitoring & Corrective Action Report section that specifies the below listed items.

- i. That the report will be submitted no later than January 31 of the year following the calendar year a groundwater monitoring system has been approved by the department, and annually thereafter.**

Response: See Sec 4.7.3 of the ESAP Addendum

WDNR Comment

8.h.ii. That the annual groundwater monitoring and corrective action CCR report contain, at a minimum, the information included in ss. NR 507.15(3)(m)1, Wis. Adm. Code.

Response: See Sec 4.7.3 of the ESAP Addendum. The reference to Ch. NR 507.15(3)(m) is intended to include associated subparagraphs 1 through 5.

WDNR Comment

9. Section NR 507.16(1), Wis. Adm. Code: Provide the following information for the sampling plan.

a. Section NR 507.16(1)(a), Wis Adm Code: Provide an updated site map that includes all sample points and devices including all groundwater monitoring wells, piezometers, lysimeters, the leachate tank, sedimentation basin, and any other sampling points on site.

Response: Figure 2-1 in the ESAP Addendum was revised to include all items referenced in WDNR's comment. This figure is included in Revision 1 of the ESAP Addendum.

Please note that the basin lysimeter (BASIN LYS-1) referenced in Sec 3.1 of the ESAP Addendum was present prior to reconstruction of the landfill in 2015, and removed when the landfill was reconstructed. Consequently, this sample point is no longer monitored and is not shown on the attached revised site map. It was also removed from Sec 3.1 in Revision 1 of the ESAP Addendum.

Also, please note that leachate headwells associated with Cell 2 (LH-2-1 and LH-2-2) were inadvertently omitted from Sec 3.1 of the ESAP Addendum. The locations of LH-2-1 and LH-2-2 are shown on the revised site map, in addition to the leachate headwells associated with Cell 1 referenced in Sec 3.1 of the ESAP Addendum (LH-1-1 and LH-1-2). LH-2-1 and LH-2-2 were also added to Sec 3.1 in Revision 1 of the ESAP Addendum.

WDNR Comment

9b. Section NR 507.16(1)(c), Wis. Adm. Code: Provide procedures to determine odor, and color.

Response: See Sec 4.4.1 "Field Notebook" in SOPs 07-07-13 "Low-Flow Groundwater Sampling" and 07-07-07 "Groundwater Sampling" included in Attachment C of the Sampling and Analysis Plan submitted as Appendix C of the ESAP Addendum.

WDNR Comment

9c. Section NR 507.16(1)(f), Wis. Adm Code: Provide a narrative on procedures for and the frequency at which trip blanks will be collected and processed.

Response: See Sec 1.4.3 "Trip Blanks" in SOP 07-04-07 "Quality Control Samples" and Sec 1.3.3 "Packaging for Shipment" in SOP 07-03-09 "Packaging and Shipment of Environmental Samples and Equipment".

WDNR Comment

9d. Section NR 507.16(1)(h), Wis. Adm. Code: Provide special procedures to sample leachate headwells and other devices.

Response: Leachate head wells are monitored for leachate elevations only. Samples of the leachate are collected from the leachate tank using a disposable monitoring well bailer. If samples are requested from the leachate head wells, they will be collected and sampled using methods similar to a monitoring well.

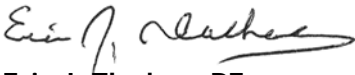
WDNR Comment

10. Section NR 507.26(3), Wis. Adm. Code: Provide a revised executive summary that states that analytical results, field data, and groundwater elevations will be submitted in the proper electronic format for upload to the “Groundwater and Environmental Monitoring System (GEMS).”

Response: The executive summary and Sec 4.7.1 of the ESAP Addendum specify that analytical results, field data, and groundwater elevations from the CCR sampling will be submitted to the GEMS database with data from the existing Ch. NR 507 monitoring program data. It is implied that submittals will be in the proper electronic format for upload to the GEMS database. Section 7 of the Sampling & Analysis Plan submitted as Appendix C of the ESAP Addendum has been revised to require the content referenced in Ch. NR 507.26(3)(b). The revised Sampling & Analysis Plan has been included as Appendix C in Revision 1 of the ESAP Addendum.


We sincerely appreciate this continued opportunity to support WEC Energy Group with CCR Initial Permitting for the WDS3 Ash Landfill. If you have any questions or comments on the above responses, please contact us.

Sincerely,



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Senior Managing Engineer

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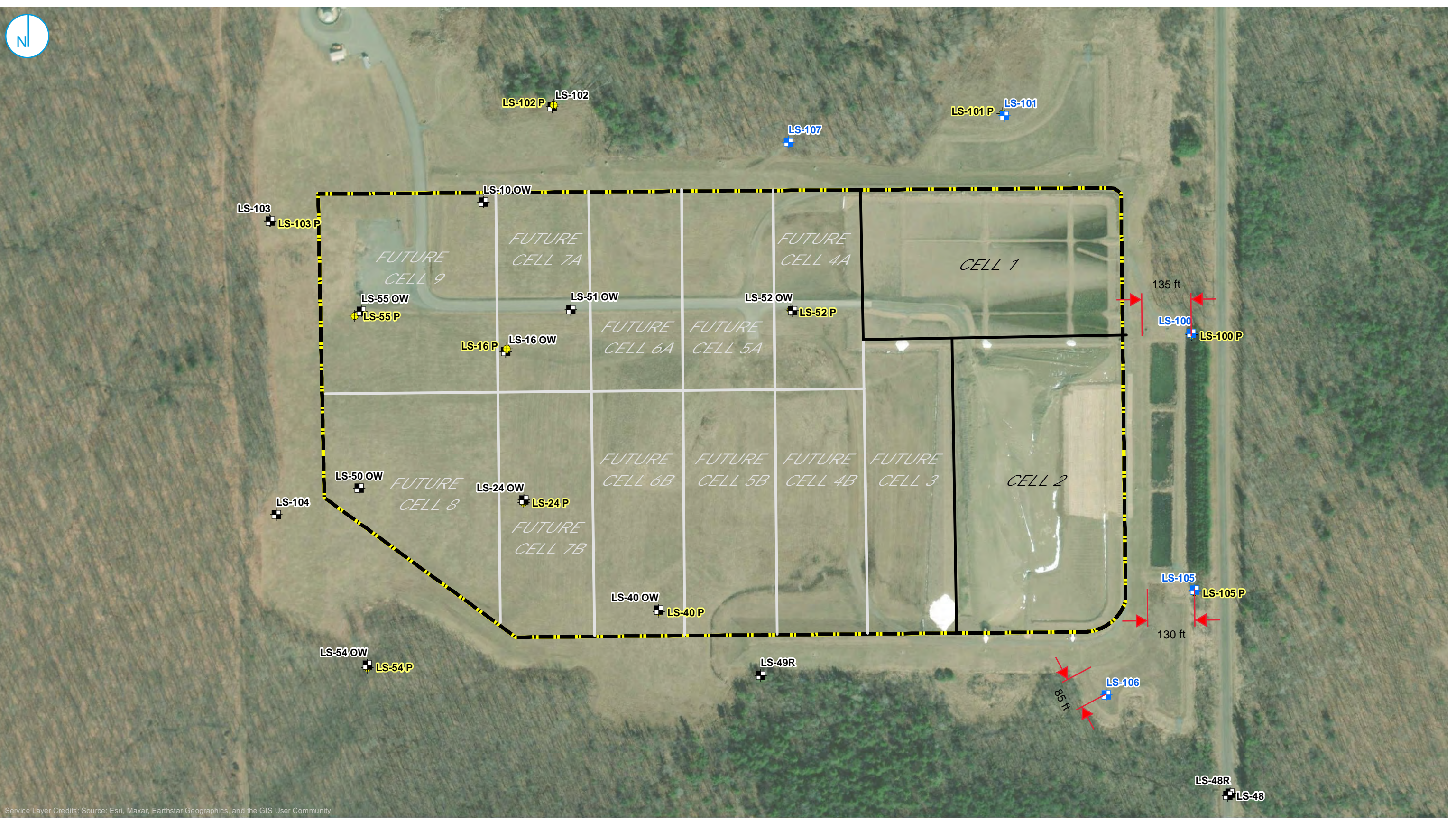


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Attachments: Monitoring Well Waste Boundary Measurements
June 28, 2023 GEMS Submittal
GEMS Submittal for June-October 2023 and 2016-2022 CCR Baseline Sampling Events

MONITORING WELL WASTE BOUNDARY MEASUREMENTS



- CCR RULE MONITORING WELL
 - MONITORING WELL LOCATION
 - ⊕ PIEZOMETER LOCATION
 - WESTON DISPOSAL SITE NO. 3 LANDFILL
- 250 ft
125 250
Feet

ACTIVE WELL NETWORK MAP

FIGURE 2-1

ENVIRONMENTAL SAMPLING AND ANALYSIS PLAN ADDENDUM
WESTON DISPOSAL SITE NO. 3 LANDFILL
TOWN OF KNOWLTON, WISCONSIN

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



JUNE 28, 2023 GEMS SUBMITTAL



Mike Solomon

GEMS Data Submittal Contact – WA/5
Bureau of Waste and Materials Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921

GROUNDWATER MONITORING DATA FOR WPSC ASH LANDFILL
Weston Disposal Site No. 3 Landfill

Dear Mr. Solomon:

June 28, 2023

Please find contained on the enclosed CD groundwater monitoring data for the Wisconsin Public Service Corporation (WPSC) ash landfill listed below. These data have been prepared in accordance with the GEMS comma delimited electronic submittal format specifications and can be found on the CD by the filename(s) indicated.

Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

License No.: #03067
Facility ID. No. (FID): FID 737054120
Facility Name: Weston Disposal Site No. 3
Sample Result Month: April 2023
CD Filename: Apr2023-03067.csv

T 414-837-3607
F 414-837-3608
www.ramboll.com

Along with the CD, the following items are also enclosed:

Ref. 1940102327

1. An Environmental Monitoring Data Certification form for each site reported on this CD.
2. An Exceedance Report table indicating where the applicable Preventive Action Limits (PAL), Enforcement Standards (ES), or Alternate Concentration Limits (ACL) have been exceeded. Please contact Eric Kovatch (414) 221-2457 to discuss the cause and significance of any exceedances, as well as the status of investigations and/or remediation at any of these sites.

Enclosed in this data package are the Semi-annual GEMS parameters, the newly added CCR wells and CCR parameters, and two additional rounds (February and March of 2023) of baseline parameter sampling for the newly added CCR wells.

The monitoring wells and concentrations listed on the attached Exceedance Report are consistent with data previously submitted for Weston Disposal Site No. 3 Landfill. Specific conductance measured at LS-103P has increased in comparison to the October 2022 monitoring event but is following a similar trend that has occurred over the prior years. Concentrations of CCR indicator parameters, boron and sulfate, have not increased (Figure A) providing evidence that the landfill is not the source of this exceedance.

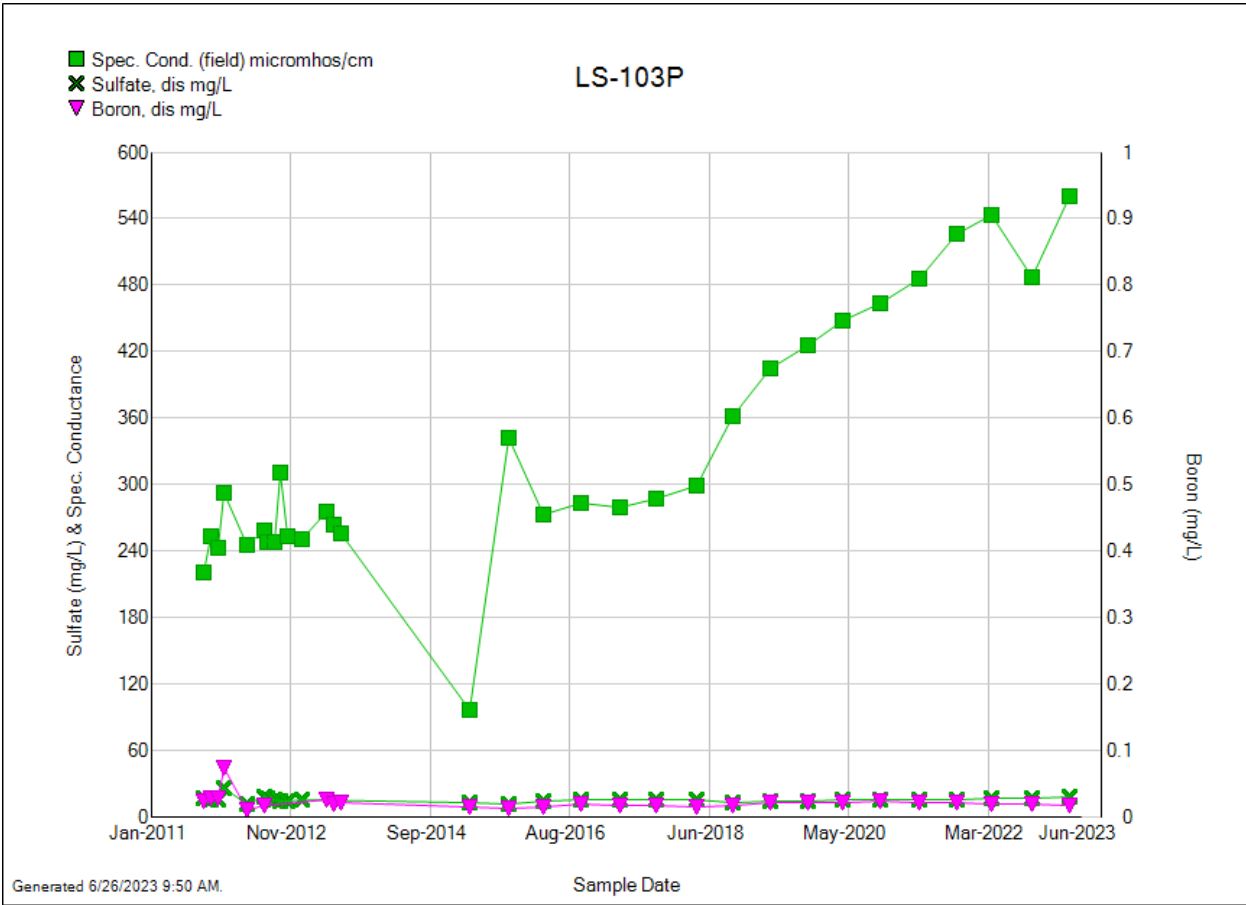


Figure A. Concentrations of boron, sulfate, and measurements of specific conductance.

If you have any questions regarding this submittal or WPSO groundwater data management and compliance reporting program, please call me at (414) 837-3630.

Sincerely,

Nathaniel R Keller, PG
Senior Hydrogeologist

D +1 414 837 3630
nate.keller@ramboll.com

cc: Matt Bachmann, WDNR
Tony Peterson, WDNR (email)

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner)
WPSC

Contact for questions about data formatting. Include data preparer's name, telephone number and Email address:

Name Eric Kovatch	Phone No. (include area code) (414) 221-2457
Email eric.kovatch@wecenergygroup.com	

Facility Name
Weston Disposal Site No. 3

License # / Monitoring ID #03067	Facility ID (FID) 737054120
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Actual sampling dates (e.g., July 2-6, 2003) April 27th 2023	The enclosed results are for sampling required in the month(s) of: (e.g., June 2003) April 2023
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Type of Data Submitted (Check all that apply):

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input checked="" type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify): |

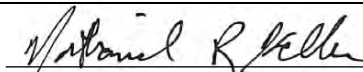
Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Facility Representative Name (Print) Nate Keller, PG	Title Senior Hydrogeologist	Phone No. (include area code) (414) 837-3630
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Signature

06/28/2023
Date Signed (mm/dd/yyyy)

For DNR Use Only

Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
 - Notified contact of problems on _____ Uploaded data successfully on _____
- EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other: _____

Weston Disposal Site #3 Limit Exceptions (List)

Date Range: 04/01/2023 to 05/01/2023

Limit Type	Parameter	Code	Units	Location	Sample Date	Analysis Result	Lower Limit	Upper Limit
PAL	Molybdenum, dissolved	01060	ug/L	LS-48P	04/27/2023	20.000	0.000	8.000
	Specific Conductance, Field	00094	micromhos/c	LS-103P	04/27/2023	560.00	0.00	460.00

03067	10	04189	230427	01	1	1195.97	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	10	72002	230427	01	1	10.09	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	12	04189	230427	01	1	1194.68	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	12	72002	230427	01	1	4.94	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	13	04189	230427	01	1	1191.02	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	13	72002	230427	01	1	9.03	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	17	04189	230427	01	1	1200.44	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	17	72002	230427	01	1	6.06	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	18	04189	230427	01	1	1198.06	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	18	72002	230427	01	1	6.88	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	19	04189	230427	01	1	1193.94	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	19	72002	230427	01	1	5.36	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	20	04189	230427	01	1	1195.07	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	20	72002	230427	01	1	4.55	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	23	00010	230427	01	1	7.2	M	M	M	0.1	0.3333	230401	230427	40261489005	TEMP	241329000	
03067	23	00094	230427	01	1	42	M	M	M	0.	0.	230401	230427	40261489005	FCOND25	241329000	
03067	23	00400	230427	01	1	5.86	M	M	M	0.1	0.3333	230401	230427	40261489005	FIELDPH	241329000	
03067	23	00946	230427	01	1	4.9	M	M	M	0.44	2.	230401	230519	40261489005	EPA 300.0	405132750	
03067	23	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489005	EPA 200.7	405132750
03067	23	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489005	EPA 200.7	405132750
03067	23	04189	230427	01	1	1183.22	M	M	M	0.	0.	230401		40261489005	calculated	241329000	
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03067	23	39036	230427	01	1	10.9	J	M	M	M	7.4	25.	230401	230505	40261489005	EPA 310.2	405132750
03067	23	72002	230427	01	1	1.33	M	M	M	0.1	0.3333	230401	230427	40261489005	DepthGW	241329000	
03067	24	00010	230427	01	1	8.8	M	M	M	0.1	0.3333	230401	230427	40261489006	TEMP	241329000	
03067	24	00094	230427	01	1	128	M	M	M	0.	0.	230401	230427	40261489006	FCOND25	241329000	
03067	24	00400	230427	01	1	6.36	M	M	M	0.1	0.3333	230401	230427	40261489006	FIELDPH	241329000	
03067	24	00946	230427	01	1	5.9	M	M	M	0.44	2.	230401	230518	40261489006	EPA 300.0	405132750	
03067	24	01020	230427	01	1	0.0249	J	M	M	M	0.0173	0.04	230401	230502	40261489006	EPA 200.7	405132750
03067	24	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489006	EPA 200.7	405132750
03067	24	04189	230427	01	1	1183.09	M	M	M	0.	0.	230401		40261489006	calculated	241329000	
03067	24	22413	230427	01	1	47.2	M	M	M	1.	5.4	230401	230502	40261489006	EPA 200.7	405132750	
03067	24	39036	230427	01	1	51.3	M	M	M	7.4	25.	230401	230505	40261489006	EPA 310.2	405132750	
03067	24	72002	230427	01	1	0.88	M	M	M	0.1	0.3333	230401	230427	40261489006	DepthGW	241329000	
03067	25	04189	230427	01	1	1193.6	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	25	72002	230427	01	1	6.16	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	26	04189	230427	01	1	1194.51	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	26	72002	230427	01	1	5.2	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	3	00010	230427	01	1	7.7	M	M	M	0.1	0.3333	230401	230427	40261489001	TEMP	241329000	
03067	3	00094	230427	01	1	404	M	M	M	0.	0.	230401	230427	40261489001	FCOND25	241329000	
03067	3	00400	230427	01	1	7.12	M	M	M	0.1	0.3333	230401	230427	40261489001	FIELDPH	241329000	
03067	3	00946	230427	01	1	5.3	M	M	M	0.44	2.	230401	230518	40261489001	EPA 300.0	405132750	
03067	3	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489001	EPA 200.7	405132750
03067	3	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489001	EPA 200.7	405132750
03067	3	04189	230427	01	1	1193.99	M	M	M	0.	0.	230401		40261489001	calculated	241329000	
03067	3	22413	230427	01	1	189	M	M	M	5.	27.	230401	230503	40261489001	EPA 200.7	405132750	
03067	3	39036	230427	01	1	181	M	M	M	7.4	25.	230401	230505	40261489001	EPA 310.2	405132750	
03067	3	72002	230427	01	1	11.73	M	M	M	0.1	0.3333	230401	230427	40261489001	DepthGW	241329000	
03067	4	04189	230427	01	1	1201.59	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	4	72002	230427	01	1	6.63	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	400	00010	230427	01	1	16.8	M	M	M	0.1	0.3333	230401	230427	0	TEMP	241329000	
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03067	400	00032	230131	01	1	258	M	M	M	0.	0.	230101	230131	0	Field	241329000	
03067	400	00032	230228	01	1	312	M	M	M	0.	0.	230201	230228	0	Field	241329000	
03067	400	00032	230331	01	1	618	M	M	M	0.	0.	230301	230331	0	Field	241329000	
03067	400	00032	230430	01	1	1428	M	M	M	0.	0.	230401	230430	0	Field	241329000	
03067	400	00032	230531	01	1	636	M	M	M	0.	0.	230501	230531	0	Field	241329000	
03067	400	00094	230427	01	1	3351	M	M	M	0.	0.	230401	230427	0	FCOND25	241329000	
03067	400	00150	230427	01	1	2.9	M	M	M	0.48	1.	230401	230501	40261491001	SM 2540D	405132750	
03067	400	00310	230427	01	1		N	M	M	M	2.	2.	230401	230504	40261491001	SM 5210B	405132750
03067	400	00340	230427	01	1	67.8	M	M	M	15.5	52.6	230401	230509	40261491001	EPA 410.4	405132750	
03067	400	00400	230427	01	1	6.55	M	M	M	0.1	0.3333	230401	230427	0	FIELDPH	241329000	

03067	400	00410	230427	01	1	63.7	M	M	M	7.4	25.	230401	230510	40261491001	EPA 310.2	405132750	
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03067	400	00940	230427	01	1	325	M	M	M	21.6	100.	230401	230515	40261491001	EPA 300.0	405132750	
03067	400	00945	230427	01	1	1300	M	M	M	22.2	100.	230401	230515	40261491001	EPA 300.0	405132750	
03067	400	01022	230427	01	1	0.751	M	M	M	0.0173	0.04	230401	230503	40261491001	EPA 200.7	405132750	
03067	400	01027	230427	01	1		N	M	M	M	1.3	5.	230401	230503	40261491001	EPA 200.7	405132750
03067	400	01051	230427	01	1		N	M	M	M	5.9	20.	230401	230503	40261491001	EPA 200.7	405132750
03067	400	01055	230427	01	1	3080	M	M	M	1.5	5.	230401	230503	40261491001	EPA 200.7	405132750	
03067	400	01062	230427	01	1	231	M	M	M	2.4	10.	230401	230503	40261491001	EPA 200.7	405132750	
03067	400	01147	230427	01	1	19.1	J	M	M	M	12.2	40.	230401	230503	40261491001	EPA 200.7	405132750
03067	400	71900	230427	01	1	0.0927	M	M	M	0.002	0.005	230401	230511	40261491001	EPA 1631E	405132750	
03067	400	74010	230427	01	1		N	M	M	M	0.0567	0.1	230401	230503	40261491001	EPA 200.7	405132750
03067	411	00031	230110	01	1	1.36	M	M	M	0.	0.	230101	230110	0	Field	241329000	
03067	411	00031	230410	01	1	0	M	M	M	0.	0.	230401	230410	0	Field	241329000	
03067	412	00031	230110	01	1	0.63	M	M	M	0.	0.	230101	230110	0	Field	241329000	
03067	412	00031	230505	01	1	0.84	M	M	M	0.	0.	230501	230505	0	Field	241329000	
03067	421	00031	230110	01	1	0.3	M	M	M	0.	0.	230101	230110	0	Field	241329000	
03067	421	00031	230410	01	1	0.63	M	M	M	0.	0.	230401	230410	0	Field	241329000	
03067	422	00031	230110	01	1	0.77	M	M	M	0.	0.	230101	230110	0	Field	241329000	
03067	422	00031	230505	01	1	0.96	M	M	M	0.	0.	230501	230505	0	Field	241329000	
03067	5	04189	230427	01	1	1193.74	M	M	M	0.	0.	230401		0	calculated	241329000	
03067	5	72002	230427	01	1	14.62	M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000	
03067	56	00010	230427	01	1	6.8	M	M	M	0.1	0.3333	230401	230427	40261489003	TEMP	241329000	
03067	56	00094	230427	01	1	2.14	M	M	M	0.	0.	230401	230427	40261489003	FCOND25	241329000	
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03067	56	00946	230427	01	1	6.5	M	M	M	0.44	2.	230401	230519	40261489003	EPA 300.0	405132750	
03067	56	01020	230427	01	1	0.0606	M	M	M	0.0173	0.04	230401	230502	40261489003	EPA 200.7	405132750	
03067	56	01060	230427	01	1	2.4	J	M	M	M	2.4	10.	230401	230502	40261489003	EPA 200.7	405132750
03067	56	04189	230427	01	1	1173.32	M	M	M	0.	0.	230401		40261489003	calculated	241329000	
03067	56	22413	230427	01	1	90.4	M	M	M	1.	5.4	230401	230502	40261489003	EPA 200.7	405132750	
03067	56	39036	230427	01	1	101	M	M	M	7.4	25.	230401	230505	40261489003	EPA 310.2	405132750	
03067	56	72002	230427	01	1	2.14	M	M	M	0.1	0.3333	230401	230427	40261489003	DepthGW	241329000	
03067	59	00010	230427	01	1	6.5	M	M	M	0.1	0.3333	230401	230427	40261489004	TEMP	241329000	
03067	59	00094	230427	01	1	134	M	M	M	0.	0.	230401	230427	40261489004	FCOND25	241329000	
03067	59	00400	230427	01	1	5.64	M	M	M	0.1	0.3333	230401	230427	40261489004	FIELDPH	241329000	
03067	59	00946	230427	01	1	5.7	M	M	M	0.44	2.	230401	230519	40261489004	EPA 300.0	405132750	
03067	59	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489004	EPA 200.7	405132750
03067	59	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489004	EPA 200.7	405132750
03067	59	04189	230427	01	1	1191.02	M	M	M	0.	0.	230401		40261489004	calculated	241329000	
03067	59	22413	230427	01	1	51.2	M	M	M	1.	5.4	230401	230502	40261489004	EPA 200.7	405132750	
03067	59	39036	230427	01	1	61.7	M	M	M	7.4	25.	230401	230505	40261489004	EPA 310.2	405132750	
03067	59	72002	230427	01	1	3.54	M	M	M	0.1	0.3333	230401	230427	40261489004	DepthGW	241329000	
03067	60	00010	230427	01	1	8.5	M	M	M	0.1	0.3333	230401	230427	40261489002	TEMP	241329000	
03067	60	00094	230427	01	1	214	M	M	M	0.	0.	230401	230427	40261489002	FCOND25	241329000	
03067	60	00400	230427	01	1	6.71	M	M	M	0.1	0.3333	230401	230427	40261489002	FIELDPH	241329000	
03067	60	00946	230427	01	1	15	M	M	M	0.44	2.	230401	230519	40261489002	EPA 300.0	405132750	
03067	60	01020	230427	01	1	0.075	M	M	M	0.0173	0.04	230401	230502	40261489002	EPA 200.7	405132750	
03067	60	01060	230427	01	1	20	M	M	M	2.4	10.	230401	230502	40261489002	EPA 200.7	405132750	
03067	60	04189	230427	01	1	1175.02	M	M	M	0.	0.	230401		40261489002	calculated	241329000	
03067	60	22413	230427	01	1	49.3	M	M	M	1.	5.4	230401	230502	40261489002	EPA 200.7	405132750	
03067	60	39036	230427	01	1	92.2	M	M	M	7.4	25.	230401	230505	40261489002	EPA 310.2	405132750	
03067	60	72002	230427	01	1	0.7	M	M	M	0.1	0.3333	230401	230427	40261489002	DepthGW	241329000	
03067	62	00010	230427	01	1	10.5	M	M	M	0.1	0.3333	230401	230427	40261489008	TEMP	241329000	
03067	62	00094	230427	01	1	299	M	M	M	0.	0.	230401	230427	40261489008	FCOND25	241329000	
03067	62	00400	230427	01	1	6.65	M	M	M	0.1	0.3333	230401	230427	40261489008	FIELDPH	241329000	
03067	62	00946	230427	01	1	21	M	M	M	0.44	2.	230401	230518	40261489008	EPA 300.0	405132750	
03067	62	01020	230427	01	1	0.0216	J	M	M	M	0.0173	0.04	230401	230502	40261489008	EPA 200.7	405132750
03067	62	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489008	EPA 200.7	405132750
03067	62	04189	230427	01	1	1190.75	M	M	M	0.	0.	230401		40261489008	calculated	241329000	
03067	62	22413	230427	01	1	108	M	M	M	1.	5.4	230401	230502	40261489008	EPA 200.7	405132750	
03067	62	39036	230427	01	1	117	M	M	M	7.4	25.	230401	230510	40261489008	EPA 310.2	405132750	
03067	62	72002	230427	01	1	8.11	M	M	M	0.1	0.3333	230401	230427	40261489008	DepthGW	241329000	

03067	64	00010	230427	01	1	5.1	M	M	M	0.1	0.3333	230401	230427	40261489007	TEMP	241329000	
03067	64	00094	230427	01	1	99	M	M	M	0.	0.	230401	230427	40261489007	FCOND25	241329000	
03067	64	00400	230427	01	1	5.22	M	M	M	0.1	0.3333	230401	230427	40261489007	FIELDPH	241329000	
03067	64	00410	230216	01	1	35.1	M	M	M	7.4	25.	230201	230220	40258414001	EPA 310.2	405132750	
03067	64	00410	230324	01	1	33.4	M	M	M	7.4	25.	230301	230404	40259853001	EPA 310.2	405132750	
03067	64	00630	230216	01	1	1.6	M	M	M	0.059	0.25	230201	230223	40258414001	EPA 353.2	405132750	
03067	64	00630	230324	01	1	1.1	M	M	M	0.059	0.25	230301	230403	40259853001	EPA 353.2	405132750	
03067	64	00630	230427	01	1	2	M	M	M	0.065	0.25	230401	230503	40261496001	EPA 300.0	405132750	
03067	64	00630	230427	02	1	2	M	M	M	0.065	0.25	230401	230503	40261496006	EPA 300.0	405132750	
03067	64	00900	230216	01	1	44.5	M	M	M	1.	5.4	230201	230221	40258414001	EPA 6010D	405132750	
03067	64	00900	230324	01	1	38	M	M	M	1.	5.4	230301	230328	40259853001	EPA 6010D	405132750	
03067	64	00900	230427	01	1	38.6	M	M	M	1.	5.4	230401	230503	40261496001	EPA 200.7	405132750	
03067	64	00900	230427	02	1	36.9	M	M	M	1.	5.4	230401	230503	40261496006	EPA 200.7	405132750	
03067	64	00916	230216	01	1	13.8	M	M	M	0.114	0.5	230201	230221	40258414001	EPA 6010D	405132750	
03067	64	00916	230324	01	1	11.9	M	M	M	0.114	0.5	230301	230328	40259853001	EPA 6010D	405132750	
03067	64	00916	230427	01	1	12.2	M	M	M	0.114	0.5	230401	230503	40261496001	EPA 200.7	405132750	
03067	64	00916	230427	02	1	11.6	M	M	M	0.114	0.5	230401	230503	40261496006	EPA 200.7	405132750	
03067	64	00927	230216	01	1	2.41	M	M	M	0.182	1.	230201	230221	40258414001	EPA 6010D	405132750	
03067	64	00927	230324	01	1	2.04	M	M	M	0.182	1.	230301	230328	40259853001	EPA 6010D	405132750	
03067	64	00927	230427	01	1	2	M	M	M	0.182	1.	230401	230503	40261496001	EPA 200.7	405132750	
03067	64	00927	230427	02	1	1.91	M	M	M	0.182	1.	230401	230503	40261496006	EPA 200.7	405132750	
03067	64	00940	230427	01	1	1.1	J	M	M	M	0.43	2.	230401	230503	40261496001	EPA 300.0	405132750
03067	64	00940	230427	02	1	1	J	M	M	M	0.43	2.	230401	230503	40261496006	EPA 300.0	405132750
03067	64	00945	230427	01	1	11.9	M	M	M	0.44	2.	230401	230503	40261496001	EPA 300.0	405132750	
03067	64	00945	230427	02	1	12	M	M	M	0.44	2.	230401	230503	40261496006	EPA 300.0	405132750	
03067	64	00946	230427	01	1	12.2	M	M	M	0.44	2.	230401	230518	40261489007	EPA 300.0	405132750	
03067	64	00946	230427	02	1	12.1	M	M	M	0.44	2.	230401	230519	40261489018	EPA 300.0	405132750	
03067	64	00951	230427	01	1		N	M	M	M	0.095	0.32	230401	230503	40261496001	EPA 300.0	405132750
03067	64	00951	230427	02	1		N	M	M	M	0.095	0.32	230401	230503	40261496006	EPA 300.0	405132750
03067	64	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489007	EPA 200.7	405132750
03067	64	01020	230427	02	1		N	M	M	M	0.0173	0.04	230401	230502	40261489018	EPA 200.7	405132750
03067	64	01022	230427	01	1		N	M	M	M	0.0173	0.04	230401	230503	40261496001	EPA 200.7	405132750
03067	64	01022	230427	02	1		N	M	M	M	0.0173	0.04	230401	230503	40261496006	EPA 200.7	405132750
03067	64	01042	230216	01	1		N	M	M	M	3.4	10.	230201	230221	40258414001	EPA 6010D	405132750
03067	64	01042	230324	01	1		N	M	M	M	3.4	10.	230301	230328	40259853001	EPA 6010D	405132750
03067	64	01042	230427	01	1		N	M	M	M	3.4	10.	230401	230503	40261496001	EPA 200.7	405132750
03067	64	01042	230427	02	1		N	M	M	M	3.4	10.	230401	230503	40261496006	EPA 200.7	405132750
03067	64	01055	230216	01	1	2.7	J	M	M	M	1.5	5.	230201	230221	40258414001	EPA 6010D	405132750
03067	64	01055	230324	01	1	3.5	J	M	M	M	1.5	5.	230301	230328	40259853001	EPA 6010D	405132750
03067	64	01055	230427	01	1		N	M	M	M	1.5	5.	230401	230503	40261496001	EPA 200.7	405132750
03067	64	01055	230427	02	1		N	M	M	M	1.5	5.	230401	230503	40261496006	EPA 200.7	405132750
03067	64	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489007	EPA 200.7	405132750
03067	64	01060	230427	02	1		N	M	M	M	2.4	10.	230401	230502	40261489018	EPA 200.7	405132750
03067	64	01077	230216	01	1		N	M	M	M	3.2	10.	230201	230221	40258414001	EPA 6010D	405132750
03067	64	01077	230324	01	1		N	M	M	M	3.2	10.	230301	230328	40259853001	EPA 6010D	405132750
03067	64	01077	230427	01	1		N	M	M	M	3.2	10.	230401	230503	40261496001	EPA 200.7	405132750
03067	64	01077	230427	02	1		N	M	M	M	3.2	10.	230401	230503	40261496006	EPA 200.7	405132750
03067	64	01092	230216	01	1		N	M	M	M	11.6	40.	230201	230221	40258414001	EPA 6010D	405132750
03067	64	01092	230324	01	1		N	M	M	M	11.6	40.	230301	230328	40259853001	EPA 6010D	405132750
03067	64	01092	230427	01	1		N	M	M	M	11.6	40.	230401	230503	40261496001	EPA 200.7	405132750
03067	64	01092	230427	02	1		N	M	M	M	11.6	40.	230401	230503	40261496006	EPA 200.7	405132750
03067	64	04189	230427	01	1	1192.32	M	M	M	0.	0.	230401		40261489007	calculated	241329000	
03067	64	22413	230427	01	1	38.4	M	M	M	1.	5.4	230401	230502	40261489007	EPA 200.7	405132750	
03067	64	22413	230427	02	1	38.6	M	M	M	1.	5.4	230401	230502	40261489018	EPA 200.7	405132750	
03067	64	39036	230427	01	1	25.2	M	M	M	7.4	25.	230401	230510	40261489007	EPA 310.2	405132750	
03067	64	39036	230427	02	1	26	M	M	M	7.4	25.	230401	230510	40261489018	EPA 310.2	405132750	
03067	64	70295	230216	01	1	82	M	M	M	8.7	20.	230201	230221	40258414001	SM 2540C	405132750	
03067	64	70295	230324	01	1	70	M	M	M	8.7	20.	230301	230328	40259853001	SM 2540C	405132750	
03067	64	70295	230427	01	1	52	M	M	M	8.7	20.	230401	230502	40261496001	SM 2540C	405132750	
03067	64	70295	230427	02	1	66	M	M	M	8.7	20.	230401	230502	40261496006	SM 2540C	405132750	
03067	64	72002	230427	01	1	6.67	M	M	M	0.1	0.3333	230401	230427	40261489007	DepthGW	241329000	
03067	66	00010	230427	01	1	9.1	M	M	M	0.1	0.3333	230401	230427	40261489010	TEMP	241329000	

03067	66	00094	230427	01	1	60	M	M	M	0.	0.	230401	230427	40261489010	FCOND25	241329000	
03067	66	00400	230427	01	1	6.21	M	M	M	0.1	0.3333	230401	230427	40261489010	FIELDPH	241329000	
03067	66	00946	230427	01	1	2.7	M	M	M	0.44	2.	230401	230518	40261489010	EPA 300.0	405132750	
03067	66	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489010	EPA 200.7	405132750
03067	66	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489010	EPA 200.7	405132750
03067	66	04189	230427	01	1	1196.56	M	M	M	0.	0.	230401		40261489010	calculated	241329000	
03067	66	22413	230427	01	1	16.3	M	M	M	1.	5.4	230401	230502	40261489010	EPA 200.7	405132750	
03067	66	39036	230427	01	1	18.1	J	M	M	M	7.4	25.	230401	230510	40261489010	EPA 310.2	405132750
03067	66	72002	230427	01	1	8.69	M	M	M	0.1	0.3333	230401	230427	40261489010	DepthGW	241329000	
03067	68	00010	230427	01	1	5.5	M	M	M	0.1	0.3333	230401	230427	40261489009	TEMP	241329000	
03067	68	00094	230427	01	1	31	M	M	M	0.	0.	230401	230427	40261489009	FCOND25	241329000	
03067	68	00400	230427	01	1	5.29	M	M	M	0.1	0.3333	230401	230427	40261489009	FIELDPH	241329000	
03067	68	00410	230216	01	1	17.3	J	M	M	M	7.4	25.	230201	230220	40258414002	EPA 310.2	405132750
03067	68	00410	230324	01	1	12.3	J	M	M	M	7.4	25.	230301	230404	40259853002	EPA 310.2	405132750
03067	68	00630	230216	01	1	0.87	M	M	M	0.059	0.25	230201	230223	40258414002	EPA 353.2	405132750	
03067	68	00630	230324	01	1	0.4	M	M	M	0.059	0.25	230301	230403	40259853002	EPA 353.2	405132750	
03067	68	00630	230427	01	1	0.2	J	M	M	M	0.065	0.25	230401	230503	40261496002	EPA 300.0	405132750
03067	68	00900	230216	01	1	17.1	M	M	M	1.	5.4	230201	230221	40258414002	EPA 6010D	405132750	
03067	68	00900	230324	01	1	11.1	M	M	M	1.	5.4	230301	230328	40259853002	EPA 6010D	405132750	
03067	68	00900	230427	01	1	9.15	M	M	M	1.	5.4	230401	230503	40261496002	EPA 200.7	405132750	
03067	68	00916	230216	01	1	4.88	M	M	M	0.114	0.5	230201	230221	40258414002	EPA 6010D	405132750	
03067	68	00916	230324	01	1	3.1	M	M	M	0.114	0.5	230301	230328	40259853002	EPA 6010D	405132750	
03067	68	00916	230427	01	1	2.51	M	M	M	0.114	0.5	230401	230503	40261496002	EPA 200.7	405132750	
03067	68	00927	230216	01	1	1.2	M	M	M	0.182	1.	230201	230221	40258414002	EPA 6010D	405132750	
03067	68	00927	230324	01	1	0.806	J	M	M	M	0.182	1.	230301	230328	40259853002	EPA 6010D	405132750
03067	68	00927	230427	01	1	0.703	J	M	M	M	0.182	1.	230401	230503	40261496002	EPA 200.7	405132750
03067	68	00940	230427	01	1	0.64	J	M	M	M	0.43	2.	230401	230503	40261496002	EPA 300.0	405132750
03067	68	00945	230427	01	1	1.6	J	M	M	M	0.44	2.	230401	230503	40261496002	EPA 300.0	405132750
03067	68	00946	230427	01	1	1.6	J	M	M	M	0.44	2.	230401	230518	40261489009	EPA 300.0	405132750
03067	68	00951	230427	01	1		N	M	M	M	0.095	0.32	230401	230503	40261496002	EPA 300.0	405132750
03067	68	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489009	EPA 200.7	405132750
03067	68	01022	230427	01	1		N	M	M	M	0.0173	0.04	230401	230503	40261496002	EPA 200.7	405132750
03067	68	01042	230216	01	1		N	M	M	M	3.4	10.	230201	230221	40258414002	EPA 6010D	405132750
03067	68	01042	230324	01	1		N	M	M	M	3.4	10.	230301	230328	40259853002	EPA 6010D	405132750
03067	68	01042	230427	01	1	22.4	M	M	M	3.4	10.	230401	230503	40261496002	EPA 200.7	405132750	
03067	68	01055	230216	01	1	4.1	J	M	M	M	1.5	5.	230201	230221	40258414002	EPA 6010D	405132750
03067	68	01055	230324	01	1	1.9	J	M	M	M	1.5	5.	230301	230328	40259853002	EPA 6010D	405132750
03067	68	01055	230427	01	1	3.3	J	M	M	M	1.5	5.	230401	230503	40261496002	EPA 200.7	405132750
03067	68	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489009	EPA 200.7	405132750
03067	68	01077	230216	01	1		N	M	M	M	3.2	10.	230201	230221	40258414002	EPA 6010D	405132750
03067	68	01077	230324	01	1		N	M	M	M	3.2	10.	230301	230328	40259853002	EPA 6010D	405132750
03067	68	01077	230427	01	1		N	M	M	M	3.2	10.	230401	230503	40261496002	EPA 200.7	405132750
03067	68	01092	230216	01	1		N	M	M	M	11.6	40.	230201	230221	40258414002	EPA 6010D	405132750
03067	68	01092	230324	01	1		N	M	M	M	11.6	40.	230301	230328	40259853002	EPA 6010D	405132750
03067	68	01092	230427	01	1		N	M	M	M	11.6	40.	230401	230503	40261496002	EPA 200.7	405132750
03067	68	04189	230427	01	1	1197.03	M	M	M	0.	0.	230401		40261489009	calculated	241329000	
03067	68	22413	230427	01	1	9.2	M	M	M	1.	5.4	230401	230502	40261489009	EPA 200.7	405132750	
03067	68	39036	230427	01	1	9.1	J	M	M	M	7.4	25.	230401	230510	40261489009	EPA 310.2	405132750
03067	68	70295	230427	01	1	26	M	M	M	8.7	20.	230401	230502	40261496002	SM 2540C	405132750	
03067	68	72002	230427	01	1	8.38	M	M	M	0.1	0.3333	230401	230427	40261489009	DepthGW	241329000	
03067	70	00010	230427	01	1	7.6	M	M	M	0.1	0.3333	230401	230427	40261489012	TEMP	241329000	
03067	70	00094	230427	01	1	123.7	M	M	M	0.	0.	230401	230427	40261489012	FCOND25	241329000	
03067	70	00400	230427	01	1	6	M	M	M	0.1	0.3333	230401	230427	40261489012	FIELDPH	241329000	
03067	70	00946	230427	01	1	7.4	M	M	M	0.44	2.	230401	230518	40261489012	EPA 300.0	405132750	
03067	70	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489012	EPA 200.7	405132750
03067	70	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489012	EPA 200.7	405132750
03067	70	04189	230427	01	1	1190.8	M	M	M	0.	0.	230401		40261489012	calculated	241329000	
03067	70	22413	230427	01	1	41.4	M	M	M	1.	5.4	230401	230502	40261489012	EPA 200.7	405132750	
03067	70	39036	230427	01	1	34.8	M	M	M	7.4	25.	230401	230510	40261489012	EPA 310.2	405132750	
03067	70	72002	230427	01	1	1.46	M	M	M	0.1	0.3333	230401	230427	40261489012	DepthGW	241329000	
03067	72	00010	230427	01	1	6.2	M	M	M	0.1	0.3333	230401	230427	40261489011	TEMP	241329000	
03067	72	00094	230427	01	1	69.5	M	M	M	0.	0.	230401	230427	40261489011	FCOND25	241329000	

03067	72	00400	230427	01	1	6.35	M	M	M	0.1	0.3333	230401	230427	40261489011	FIELDPH	241329000	
03067	72	00946	230427	01	1	4.4	M	M	M	0.44	2.	230401	230518	40261489011	EPA 300.0	405132750	
03067	72	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489011	EPA 200.7	405132750
03067	72	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489011	EPA 200.7	405132750
03067	72	04189	230427	01	1	1190.28	M	M	M	0.	0.	230401		40261489011	calculated	241329000	
03067	72	22413	230427	01	1	19.6	M	M	M	1.	5.4	230401	230502	40261489011	EPA 200.7	405132750	
03067	72	39036	230427	01	1	14	J	M	M	M	7.4	25.	230401	230510	40261489011	EPA 310.2	405132750
03067	72	72002	230427	01	1	2.31	M	M	M	0.1	0.3333	230401	230427	40261489011	DepthGW	241329000	
03067	74	00010	230427	01	1	9.1	M	M	M	0.1	0.3333	230401	230427	40261489014	TEMP	241329000	
03067	74	00094	230427	01	1	560	M	M	M	0.	0.	230401	230427	40261489014	FCOND25	241329000	
03067	74	00400	230427	01	1	7.38	M	M	M	0.1	0.3333	230401	230427	40261489014	FIELDPH	241329000	
03067	74	00946	230427	01	1	17.4	M	M	M	0.44	2.	230401	230518	40261489014	EPA 300.0	405132750	
03067	74	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489014	EPA 200.7	405132750
03067	74	01060	230427	01	1	6.1	J	M	M	M	2.4	10.	230401	230502	40261489014	EPA 200.7	405132750
03067	74	04189	230427	01	1	1179.56	M	M	M	0.	0.	230401		40261489014	calculated	241329000	
03067	74	22413	230427	01	1	210	M	M	M	1.	5.4	230401	230502	40261489014	EPA 200.7	405132750	
03067	74	39036	230427	01	1	171	M	M	M	7.4	25.	230401	230510	40261489014	EPA 310.2	405132750	
03067	74	72002	230427	01	1	9.69	M	M	M	0.1	0.3333	230401	230427	40261489014	DepthGW	241329000	
03067	76	00010	230427	01	1	7.1	M	M	M	0.1	0.3333	230401	230427	40261489013	TEMP	241329000	
03067	76	00094	230427	01	1	183	M	M	M	0.	0.	230401	230427	40261489013	FCOND25	241329000	
03067	76	00400	230427	01	1	5.7	M	M	M	0.1	0.3333	230401	230427	40261489013	FIELDPH	241329000	
03067	76	00946	230427	01	1	4.2	M	M	M	0.44	2.	230401	230518	40261489013	EPA 300.0	405132750	
03067	76	00946	230427	02	1	4.1	M	M	M	0.44	2.	230401	230519	40261489019	EPA 300.0	405132750	
03067	76	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489013	EPA 200.7	405132750
03067	76	01020	230427	02	1		N	M	M	M	0.0173	0.04	230401	230502	40261489019	EPA 200.7	405132750
03067	76	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489013	EPA 200.7	405132750
03067	76	01060	230427	02	1		N	M	M	M	2.4	10.	230401	230502	40261489019	EPA 200.7	405132750
03067	76	04189	230427	01	1	1179.14	M	M	M	0.	0.	230401		40261489013	calculated	241329000	
03067	76	22413	230427	01	1	48.8	M	M	M	1.	5.4	230401	230502	40261489013	EPA 200.7	405132750	
03067	76	22413	230427	02	1	48.1	M	M	M	1.	5.4	230401	230502	40261489019	EPA 200.7	405132750	
03067	76	39036	230427	01	1	8.5	J	M	M	M	7.4	25.	230401	230510	40261489013	EPA 310.2	405132750
03067	76	39036	230427	02	1	10.2	J	M	M	M	7.4	25.	230401	230510	40261489019	EPA 310.2	405132750
03067	76	72002	230427	01	1	9.72	M	M	M	0.1	0.3333	230401	230427	40261489013	DepthGW	241329000	
03067	78	00010	230427	01	1	7	M	M	M	0.1	0.3333	230401	230427	40261489015	TEMP	241329000	
03067	78	00094	230427	01	1	36	M	M	M	0.	0.	230401	230427	40261489015	FCOND25	241329000	
03067	78	00400	230427	01	1	5.76	M	M	M	0.1	0.3333	230401	230427	40261489015	FIELDPH	241329000	
03067	78	00946	230427	01	1	3	M	M	M	0.44	2.	230401	230518	40261489015	EPA 300.0	405132750	
03067	78	01020	230427	01	1		N	M	M	M	0.0173	0.04	230401	230502	40261489015	EPA 200.7	405132750
03067	78	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489015	EPA 200.7	405132750
03067	78	04189	230427	01	1	1195.38	M	M	M	0.	0.	230401		40261489015	calculated	241329000	
03067	78	22413	230427	01	1	10	M	M	M	1.	5.4	230401	230502	40261489015	EPA 200.7	405132750	
03067	78	39036	230427	01	1	8.7	J	M	M	M	7.4	25.	230401	230510	40261489015	EPA 310.2	405132750
03067	78	72002	230427	01	1	8.27	M	M	M	0.1	0.3333	230401	230427	40261489015	DepthGW	241329000	
03067	80	00010	230427	01	1	9.5	M	M	M	0.1	0.3333	230401	230427	40261489017	TEMP	241329000	
03067	80	00094	230427	01	1	209	M	M	M	0.	0.	230401	230427	40261489017	FCOND25	241329000	
03067	80	00400	230427	01	1	5.67	M	M	M	0.1	0.3333	230401	230427	40261489017	FIELDPH	241329000	
03067	80	00946	230427	01	1	29.9	M	M	M	0.44	2.	230401	230519	40261489017	EPA 300.0	405132750	
03067	80	01020	230427	01	1	0.0273	J	M	M	M	0.0173	0.04	230401	230502	40261489017	EPA 200.7	405132750
03067	80	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489017	EPA 200.7	405132750
03067	80	04189	230427	01	1	1186.81	M	M	M	0.	0.	230401		40261489017	calculated	241329000	
03067	80	22413	230427	01	1	92.1	M	M	M	1.	5.4	230401	230502	40261489017	EPA 200.7	405132750	
03067	80	39036	230427	01	1	71.4	M	M	M	7.4	25.	230401	230510	40261489017	EPA 310.2	405132750	
03067	80	72002	230427	01	1	3.5	M	M	M	0.1	0.3333	230401	230427	40261489017	DepthGW	241329000	
03067	82	00010	230427	01	1	6.6	M	M	M	0.1	0.3333	230401	230427	40261489016	TEMP	241329000	
03067	82	00094	230427	01	1	201	M	M	M	0.	0.	230401	230427	40261489016	FCOND25	241329000	
03067	82	00400	230427	01	1	5.5	M	M	M	0.1	0.3333	230401	230427	40261489016	FIELDPH	241329000	
03067	82	00410	230216	01	1	116	M	M	M	7.4	25.	230201	230220	40258414003	EPA 310.2	405132750	
03067	82	00410	230324	01	1	91.6	M	M	M	7.4	25.	230301	230404	40259853003	EPA 310.2	405132750	
03067	82	00630	230216	01	1		N	M	M	M	0.059	0.25	230201	230223	40258414003	EPA 353.2	405132750
03067	82	00630	230324	01	1		N	M	M	M	0.059	0.25	230301	230403	40259853003	EPA 353.2	405132750
03067	82	00630	230427	01	1		N	M	M	M	0.065	0.25	230401	230503	40261496003	EPA 300.0	405132750
03067	82	00900	230216	01	1	107	M	M	M	1.	5.4	230201	230221	40258414003	EPA 6010D	405132750	

03067	82	00900	230324	01	1	95.7	M	M	M	1.	5.4	230301	230328	40259853003	EPA 6010D	405132750	
03067	82	00900	230427	01	1	74.7	M	M	M	1.	5.4	230401	230503	40261496003	EPA 200.7	405132750	
03067	82	00916	230216	01	1	30.6	M	M	M	0.114	0.5	230201	230221	40258414003	EPA 6010D	405132750	
03067	82	00916	230324	01	1	27.6	M	M	M	0.114	0.5	230301	230328	40259853003	EPA 6010D	405132750	
03067	82	00916	230427	01	1	21.4	M	M	M	0.114	0.5	230401	230503	40261496003	EPA 200.7	405132750	
03067	82	00927	230216	01	1	7.41	M	M	M	0.182	1.	230201	230221	40258414003	EPA 6010D	405132750	
03067	82	00927	230324	01	1	6.52	M	M	M	0.182	1.	230301	230328	40259853003	EPA 6010D	405132750	
03067	82	00927	230427	01	1	5.14	M	M	M	0.182	1.	230401	230503	40261496003	EPA 200.7	405132750	
03067	82	00940	230427	01	1	1.7	J	M	M	M	0.43	2.	230401	230503	40261496003	EPA 300.0	405132750
03067	82	00945	230427	01	1	17.8	M	M	M	0.44	2.	230401	230503	40261496003	EPA 300.0	405132750	
03067	82	00946	230427	01	1	17.1	M	M	M	0.44	2.	230401	230519	40261489016	EPA 300.0	405132750	
03067	82	00951	230427	01	1		N	M	M	M	0.095	0.32	230401	230503	40261496003	EPA 300.0	405132750
03067	82	01020	230427	01	1	0.0199	J	M	M	M	0.0173	0.04	230401	230502	40261489016	EPA 200.7	405132750
03067	82	01022	230427	01	1	0.0203	J	M	M	M	0.0173	0.04	230401	230503	40261496003	EPA 200.7	405132750
03067	82	01042	230216	01	1		N	M	M	M	3.4	10.	230201	230221	40258414003	EPA 6010D	405132750
03067	82	01042	230324	01	1		N	M	M	M	3.4	10.	230301	230328	40259853003	EPA 6010D	405132750
03067	82	01042	230427	01	1		N	M	M	M	3.4	10.	230401	230503	40261496003	EPA 200.7	405132750
03067	82	01055	230216	01	1	1530	M	M	M	1.5	5.	230201	230221	40258414003	EPA 6010D	405132750	
03067	82	01055	230324	01	1	1340	M	M	M	1.5	5.	230301	230328	40259853003	EPA 6010D	405132750	
03067	82	01055	230427	01	1	1140	M	M	M	1.5	5.	230401	230503	40261496003	EPA 200.7	405132750	
03067	82	01060	230427	01	1		N	M	M	M	2.4	10.	230401	230502	40261489016	EPA 200.7	405132750
03067	82	01077	230216	01	1		N	M	M	M	3.2	10.	230201	230221	40258414003	EPA 6010D	405132750
03067	82	01077	230324	01	1		N	M	M	M	3.2	10.	230301	230328	40259853003	EPA 6010D	405132750
03067	82	01077	230427	01	1		N	M	M	M	3.2	10.	230401	230503	40261496003	EPA 200.7	405132750
03067	82	01092	230216	01	1		N	M	M	M	11.6	40.	230201	230221	40258414003	EPA 6010D	405132750
03067	82	01092	230324	01	1		N	M	M	M	11.6	40.	230301	230328	40259853003	EPA 6010D	405132750
03067	82	01092	230427	01	1		N	M	M	M	11.6	40.	230401	230503	40261496003	EPA 200.7	405132750
03067	82	04189	230427	01	1	1186.76	M	M	M	0.	0.	230401		40261489016	calculated	241329000	
03067	82	22413	230427	01	1	75.9	M	M	M	1.	5.4	230401	230502	40261489016	EPA 200.7	405132750	
03067	82	39036	230427	01	1	82.1	M	M	M	7.4	25.	230401	230510	40261489016	EPA 310.2	405132750	
03067	82	70295	230427	01	1	118	M	M	M	8.7	20.	230401	230502	40261496003	SM 2540C	405132750	
03067	82	72002	230427	01	1	3.5	M	M	M	0.1	0.3333	230401	230427	40261489016	DepthGW	241329000	
03067	84	00094	230427	01	1	33	M	M	M	0.	0.	230401	230427	40261496004	FCOND25	241329000	
03067	84	00400	230427	01	1	5.43	M	M	M	0.1	0.3333	230401	230427	40261496004	FIELDPH	241329000	
03067	84	00410	230216	01	1	83.4	M	M	M	14.9	50.	230201	230220	40258414004	EPA 310.2	405132750	
03067	84	00410	230324	01	1	68.3	M	M	M	7.4	25.	230301	230404	40259853004	EPA 310.2	405132750	
03067	84	00630	230216	01	1		N	M	M	M	0.059	0.25	230201	230223	40258414004	EPA 353.2	405132750
03067	84	00630	230324	01	1	0.067	J	M	M	M	0.059	0.25	230301	230403	40259853004	EPA 353.2	405132750
03067	84	00630	230427	01	1	0.35	M	M	M	0.065	0.25	230401	230503	40261496004	EPA 300.0	405132750	
03067	84	00900	230216	01	1	119	M	M	M	1.	5.4	230201	230221	40258414004	EPA 6010D	405132750	
03067	84	00900	230324	01	1	64.7	M	M	M	1.	5.4	230301	230328	40259853004	EPA 6010D	405132750	
03067	84	00900	230427	01	1	17.5	M	M	M	1.	5.4	230401	230503	40261496004	EPA 200.7	405132750	
03067	84	00916	230216	01	1	24.3	M	M	M	0.114	0.5	230201	230221	40258414004	EPA 6010D	405132750	
03067	84	00916	230324	01	1	15.3	M	M	M	0.114	0.5	230301	230328	40259853004	EPA 6010D	405132750	
03067	84	00916	230427	01	1	3.55	M	M	M	0.114	0.5	230401	230503	40261496004	EPA 200.7	405132750	
03067	84	00927	230216	01	1	14.1	M	M	M	0.182	1.	230201	230221	40258414004	EPA 6010D	405132750	
03067	84	00927	230324	01	1	6.47	M	M	M	0.182	1.	230301	230328	40259853004	EPA 6010D	405132750	
03067	84	00927	230427	01	1	2.11	M	M	M	0.182	1.	230401	230503	40261496004	EPA 200.7	405132750	
03067	84	00940	230427	01	1	0.9	J	M	M	M	0.43	2.	230401	230503	40261496004	EPA 300.0	405132750
03067	84	00945	230427	01	1	1.1	J	M	M	M	0.44	2.	230401	230503	40261496004	EPA 300.0	405132750
03067	84	00951	230427	01	1		N	M	M	M	0.095	0.32	230401	230503	40261496004	EPA 300.0	405132750
03067	84	01022	230427	01	1	0.0411	M	M	M	0.0173	0.04	230401	230503	40261496004	EPA 200.7	405132750	
03067	84	01042	230216	01	1	29.1	M	M	M	3.4	10.	230201	230221	40258414004	EPA 6010D	405132750	
03067	84	01042	230324	01	1	4.1	J	M	M	M	3.4	10.	230301	230328	40259853004	EPA 6010D	405132750
03067	84	01042	230427	01	1	4.1	J	M	M	M	3.4	10.	230401	230503	40261496004	EPA 200.7	405132750
03067	84	01055	230216	01	1	3620	M	M	M	1.5	5.	230201	230221	40258414004	EPA 6010D	405132750	
03067	84	01055	230324	01	1	826	M	M	M	1.5	5.	230301	230328	40259853004	EPA 6010D	405132750	
03067	84	01055	230427	01	1	241	M	M	M	1.5	5.	230401	230503	40261496004	EPA 200.7	405132750	
03067	84	01077	230216	01	1		N	M	M	M	3.2	10.	230201	230221	40258414004	EPA 6010D	405132750
03067	84	01077	230324	01	1		N	M	M	M	3.2	10.	230301	230328	40259853004	EPA 6010D	405132750
03067	84	01077	230427	01	1		N	M	M	M	3.2	10.	230401	230503	40261496004	EPA 200.7	405132750
03067	84	01092	230216	01	1	32	J	M	M	M	11.6	40.	230201	230221	40258414004	EPA 6010D	405132750

03067	84	01092	230324	01	1		N	M	M	M	11.6	40.	230301	230328	40259853004	EPA 6010D	405132750
03067	84	01092	230427	01	1		N	M	M	M	11.6	40.	230401	230503	40261496004	EPA 200.7	405132750
03067	84	70295	230427	01	1	88		M	M	M	8.7	20.	230401	230502	40261496004	SM 2540C	405132750
03067	851	00006	230427	01	1	0		M	M	M	0.	0.	230401	230427	0		241329000
03067	852	00094	230427	01	1	78		M	M	M	0.	0.	230401	230427	0	FCOND25	241329000
03067	852	00400	230427	01	1	6.55		M	M	M	0.1	0.3333	230401	230427	0	FIELDPH	241329000
03067	853	00006	230427	01	1	0		M	M	M	0.	0.	230401	230427	0		241329000
03067	86	00094	230427	01	1	319		M	M	M	0.	0.	230401	230427	40261496005	FCOND25	241329000
03067	86	00400	230427	01	1	5.42		M	M	M	0.1	0.3333	230401	230427	40261496005	FIELDPH	241329000
03067	86	00410	230216	01	1	43.3		M	M	M	7.4	25.	230201	230220	40258414005	EPA 310.2	405132750
03067	86	00410	230324	01	1	42.3		M	M	M	7.4	25.	230301	230404	40259853005	EPA 310.2	405132750
03067	86	00630	230216	01	1	1.4		M	M	M	0.059	0.25	230201	230223	40258414005	EPA 353.2	405132750
03067	86	00630	230324	01	1	1.3		M	M	M	0.059	0.25	230301	230403	40259853005	EPA 353.2	405132750
03067	86	00630	230427	01	1	1.5		M	M	M	0.065	0.25	230401	230503	40261496005	EPA 300.0	405132750
03067	86	00900	230216	01	1	156		M	M	M	1.	5.4	230201	230221	40258414005	EPA 6010D	405132750
03067	86	00900	230324	01	1	121		M	M	M	1.	5.4	230301	230328	40259853005	EPA 6010D	405132750
03067	86	00900	230427	01	1	130		M	M	M	1.	5.4	230401	230503	40261496005	EPA 200.7	405132750
03067	86	00916	230216	01	1	45.7		M	M	M	0.114	0.38	230201		40258414005	EPA 6010D	241329000
03067	86	00916	230324	01	1	35.6		M	M	M	0.114	0.5	230301	230328	40259853005	EPA 6010D	405132750
03067	86	00916	230427	01	1	38		M	M	M	0.114	0.5	230401	230503	40261496005	EPA 200.7	405132750
03067	86	00927	230216	01	1	10.3		M	M	M	0.182	1.	230201	230221	40258414005	EPA 6010D	405132750
03067	86	00927	230324	01	1	7.86		M	M	M	0.182	1.	230301	230328	40259853005	EPA 6010D	405132750
03067	86	00927	230427	01	1	8.53		M	M	M	0.182	1.	230401	230503	40261496005	EPA 200.7	405132750
03067	86	00940	230216	01	1	18.7		M	M	M	0.43	1.4332	230201		40258414005	EPA 300.0	241329000
03067	86	00940	230324	01	1	15.2		M	M	M	2.2	10.	230301	230403	40259853005	EPA 300.0	405132750
03067	86	00940	230427	01	1	38.8		M	M	M	0.43	2.	230401	230503	40261496005	EPA 300.0	405132750
03067	86	00945	230216	01	1	80.7		M	M	M	2.2	7.3326	230201		40258414005	EPA 300.0	241329000
03067	86	00945	230324	01	1	74.7		M	M	M	2.2	10.	230301	230403	40259853005	EPA 300.0	405132750
03067	86	00945	230427	01	1	54.8		M	M	M	0.44	2.	230401	230503	40261496005	EPA 300.0	405132750
03067	86	00951	230427	01	1		N	M	M	M	0.095	0.32	230401	230503	40261496005	EPA 300.0	405132750
03067	86	01022	230427	01	1	0.0208	J	M	M	M	0.0173	0.04	230401	230503	40261496005	EPA 200.7	405132750
03067	86	01042	230216	01	1		N	M	M	M	3.4	10.	230201	230221	40258414005	EPA 6010D	405132750
03067	86	01042	230324	01	1		N	M	M	M	3.4	10.	230301	230328	40259853005	EPA 6010D	405132750
03067	86	01042	230427	01	1		N	M	M	M	3.4	10.	230401	230503	40261496005	EPA 200.7	405132750
03067	86	01055	230216	01	1	9.5		M	M	M	1.5	5.	230201	230221	40258414005	EPA 6010D	405132750
03067	86	01055	230324	01	1	9.8		M	M	M	1.5	5.	230301	230328	40259853005	EPA 6010D	405132750
03067	86	01055	230427	01	1	6		M	M	M	1.5	5.	230401	230503	40261496005	EPA 200.7	405132750
03067	86	01077	230216	01	1		N	M	M	M	3.2	10.	230201	230221	40258414005	EPA 6010D	405132750
03067	86	01077	230324	01	1		N	M	M	M	3.2	10.	230301	230328	40259853005	EPA 6010D	405132750
03067	86	01077	230427	01	1		N	M	M	M	3.2	10.	230401	230503	40261496005	EPA 200.7	405132750
03067	86	01092	230216	01	1		N	M	M	M	11.6	40.	230201	230221	40258414005	EPA 6010D	405132750
03067	86	01092	230324	01	1		N	M	M	M	11.6	40.	230301	230328	40259853005	EPA 6010D	405132750
03067	86	01092	230427	01	1		N	M	M	M	11.6	40.	230401	230503	40261496005	EPA 200.7	405132750
03067	86	70295	230216	01	1	212		M	M	M	8.7	28.9971	230201		40258414005	SM 2540C	241329000
03067	86	70295	230324	01	1	180		M	M	M	8.7	20.	230301	230328	40259853005	SM 2540C	405132750
03067	86	70295	230427	01	1	212		M	M	M	8.7	20.	230401	230502	40261496005	SM 2540C	405132750
03067	9	04189	230427	01	1	1198.5		M	M	M	0.	0.	230401		0	calculated	241329000
03067	9	72002	230427	01	1	7.55		M	M	M	0.1	0.3333	230401	230427	0	DepthGW	241329000

**GEMS SUBMITTAL FOR JUNE-OCTOBER 2023 AND
2016-2022 CCR BASELINE SAMPLING EVENTS**

Mike Solomon

GEMS Data Submittal Contact – WA/5
 Bureau of Waste and Materials Management
 Wisconsin Department of Natural Resources
 P.O. Box 7921
 Madison, WI 53707-7921

**GROUNDWATER MONITORING DATA FOR WE ENERGIES ASH LANDFILLS
 Weston Disposal Site No. 3**

Dear Mr. Solomon:

Please find contained on the enclosed CD groundwater monitoring data for the We Energies ash landfill listed below. These data have been prepared in accordance with the GEMS comma delimited electronic submittal format specifications and can be found on the CD by the filename(s) indicated.

December 18, 2023

License No.: #03067
Facility ID. No. (FID): FID 737054120
Facility Name: Weston Disposal Site No. 3
Sample Result Month: 2016-2022 Historical CCR 257 Baseline Data
 June 2023- November 2023 Baseline Data
CD Filename: Historical2016_2022_June_Oct_2023-03067.csv

Ramboll
 234 W. Florida Street
 Fifth Floor
 Milwaukee, WI 53204
 USA

T 414-837-3607
 F 414-837-3608
www.ramboll.com

Along with the CD, the following items are also enclosed:

Ref. 1940102327

1. An Environmental Monitoring Data Certification form for each site reported on this CD.

Enclosed with this data package is the data for former CCR program wells:

- LS100, LS-101, LS-105, LS-106, LS-107

and parameters related to the following regulatory requirements:

- NR507 App I, Table 1A, *DETECTION GROUNDWATER MONITORING FOR CCR WELLS AT CCR LANDFILLS:*
 - Alkalinity, Boron, Calcium, Chloride, Fluoride, Field Conductivity, Field pH, Field Temperature, Groundwater Elevation, Hardness, Total Dissolved Solids, and Sulfate.
- NR507 App I, Table 3, *BASELINE AND ASSESSMENT GROUNDWATER MONITORING PUBLIC HEALTH AND WELFARE PARAMETERS:*
 - *All Wells Requirement:*
 - Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Manganese, Mercury, Nitrate + Nitrite, Selenium, Silver, Sulfate, Zinc
 - *Additional Parameters for CCR Wells:*
 - Antimony, Beryllium, Cobalt, Lithium, Molybdenum, Thallium, Ra-226/Ra-228 Combined



Data submitted is from 2015-2022 that was collected for the 40 C.F.R. Part 257 Subpart D monitoring program, and the remainder of baseline data collected from June 2023 through October 2023.

If you have any questions regarding this submittal or We Energies groundwater data management and compliance reporting program, please call me at (414) 837-3630.

Sincerely,

A handwritten signature in black ink that reads "Nate Keller".

Nate Keller, PG
Senior Hydrogeologist

D +1 414 837 3630
nate.keller@ramboll.com

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5
 Wisconsin Department of Natural Resources
 P.O. Box 7921
 Madison, WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner)

WPSC

Contact for questions about data formatting. Include data preparer's name, telephone number and Email address:

Name Eric Kovatch	Phone No. (include area code) (414) 221-2457
----------------------	---

Email
eric.kovatch@wecenergygroup.com

Facility Name
Weston Disposal Site No. 3

License # / Monitoring ID #03067	Facility ID (FID) 737054120
-------------------------------------	--------------------------------

Actual sampling dates (e.g., July 2-6, 2003) Historical 2016-2022/ June-October 2023	The enclosed results are for sampling required in the month(s) of: (e.g., June 2003) Historical 2016-2022/ June-October 2023
---	---

Type of Data Submitted (Check all that apply):

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify): |

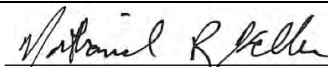
Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Facility Representative Name (Print) Nate Keller, PG	Title Senior Hydrogeologist	Phone No. (include area code) (414) 837-3630
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 Signature

12/18/2023
 Date Signed (mm/dd/yyyy)

For DNR Use Only

Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
- Notified contact of problems on _____ Uploaded data successfully on _____
- EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other: _____

03067	64	00010	160615	01	1	10.34	M	M	M	0.1	0.3333	0.3333	160601	40133877003	FIELD	241329000	
03067	64	00010	160810	01	1	14.43	M	M	M	0.1	0.3333	0.3333	160801	40136543003	FIELD	241329000	
03067	64	00010	161221	01	1	9.72	M	M	M	0.1	0.3333	0.3333	161201	40143755003	FIELD	241329000	
03067	64	00010	170310	01	1	4.94	M	M	M	0.1	0.3333	0.3333	170301	40146662002	FIELD	241329000	
03067	64	00010	170602	01	1	9.37	M	M	M	0.1	0.3333	0.3333	170601	40151013002	FIELD	241329000	
03067	64	00010	200901	01	1	18.8	M	M	M	0.1	0.3333	0.3333	200901	AE48236	TEMP	241329000	
03067	64	00010	230607	01	1	8.3	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347001	TEMP	241329000
03067	64	00010	230712	01	1	10.3	M	M	M	0.1	0.1	0.1	230701	230712	40265075001	TEMP	241329000
03067	64	00010	230816	01	1	15.1	M	M	M	0.1	0.3333	0.3333	230801	230816	AE68557	TEMP	241329000
03067	64	00010	230920	01	1	13	M	M	M	0.1	0.3333	0.3333	230901	230920	AE69145	TEMP	241329000
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03067	64	00094	160810	01	1	216	M	M	M	0.	0.	0.	160801	40136543003	FIELD	241329000	
03067	64	00094	161221	01	1	550	M	M	M	0.	0.	0.	161201	40143755003	FIELD	241329000	
03067	64	00094	170310	01	1	160	M	M	M	0.	0.	0.	170301	40146662002	FIELD	241329000	
03067	64	00094	170602	01	1	140	M	M	M	0.	0.	0.	170601	40151013002	FIELD	241329000	
03067	64	00094	200901	01	1	76	M	M	M	0.	0.	0.	200901	AE48236	FCOND25	241329000	
03067	64	00094	230607	01	1	123	M	M	M	0.	0.	0.	230601	230607	40263347001	FCOND25	241329000
03067	64	00094	230712	01	1	143	M	M	M	0.	0.	0.	230701	230712	40265075001	FCOND25	241329000
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03067	64	00400	160615	01	1	6.53	M	M	M	0.1	0.3333	0.3333	160601	40133877003	FIELD	241329000	
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03067	64	00400	161221	01	1	7.11	M	M	M	0.1	0.3333	0.3333	161201	40143755003	FIELD	241329000	
03067	64	00400	170310	01	1	8.39	M	M	M	0.1	0.3333	0.3333	170301	40146662002	FIELD	241329000	
03067	64	00400	170602	01	1	8.03	M	M	M	0.1	0.3333	0.3333	170601	40151013002	FIELD	241329000	
03067	64	00400	200901	01	1	5.91	M	M	M	0.1	0.3333	0.3333	200901	AE48236	FieldPH	241329000	
03067	64	00400	230607	01	1	5.22	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347001	FIELDPH	241329000
03067	64	00400	230712	01	1	5.68	M	M	M	0.1	0.1	0.1	230701	230712	40265075001	FIELDPH	241329000
03067	64	00400	230816	01	1	5.8	M	M	M	0.1	0.1	0.1	230801	230816	AE68557	FieldPH	241329000
03067	64	00400	230920	01	1	5.9	M	M	M	0.1	0.1	0.1	230901	230920	AE69145	FieldPH	241329000
03067	64	00410	170602	01	1	23.2	M	M	M	5.	16.665	16.665	170601	40151013002	SM 2320B	241329000	
03067	64	00410	191024	01	1	18	M	M	M	5.	16.665	16.665	191001	AE41537	Std Mtd 2320B	241329000	
03067	64	00410	201014	01	1	17	M	M	M	5.	16.665	16.665	201001	AE49163	Std Mtd 2320B	241329000	
03067	64	00410	211026	01	1	28.8	M	M	M	5.	16.665	16.665	211001	AE56950	Std Mtd 2320B	241329000	
03067	64	00410	220412	01	1	21.1	M	M	M	5.2	17.3316	17.3316	220401	AE60080	Std Mtd 2320B	241329000	
03067	64	00410	221025	01	1	42.8	M	M	M	5.	16.665	16.665	221001	AE63596	Std Mtd 2320B	241329000	
03067	64	00630	221025	01	1	2.821	M	M	M	0.065	0.2166	0.2166	221001	AE63596	EPA 300.0	241329000	
03067	64	00630	230607	01	1	2.5	M	M	M	0.059	0.25	0.25	230601	230619	40263347001	EPA 353.2	405132750
03067	64	00630	230712	01	1	2.1	M	M	M	0.059	0.25	0.25	230701	230725	40265075001	EPA 353.2	405132750
03067	64	00630	230816	01	1	1.6	M	M	M	0.059	0.25	0.25	230801	230829	AE68557	EPA 353.2	405132750
03067	64	00630	230920	01	1	1.7	J	M	M	0.65	2.5	2.5	230901	230922	AE69145	EPA 353.2	405132750
03067	64	00900	230607	01	1	50.2	M	M	M	1.	5.4	5.4	230601	230612	40263347001	EPA 200.7	405132750
03067	64	00900	230712	01	1	59.9	M	M	M	1.	5.4	5.4	230701	230717	40265075001	EPA 200.7	405132750
03067	64	00900	230816	01	1	128	M	M	M	2.	10.8	10.8	230801	230822	AE68557	Std Mtd 2340B	241329000
03067	64	00900	230920	01	1	103	M	M	M	1.	5.4	5.4	230901	230925	AE69145	Std Mtd 2340B	241329000
03067	64	00916	160218	01	1	13.9	M	M	M	0.019	0.0633	0.0633	160201	40128408001	EPA 6020A	241329000	
03067	64	00916	160405	01	1	27.3	M	M	M	0.05	0.1667	0.1667	160401	40130257002	EPA 6020A	241329000	
03067	64	00916	160615	01	1	22.5	M	M	M	0.074	0.2466	0.2466	160601	40133877003	EPA 6020	241329000	
03067	64	00916	160810	01	1	28.2	M	M	M	0.074	0.2466	0.2466	160801	40136543003	EPA 6020	241329000	
03067	64	00916	161005	01	1	56.8	M	M	M	0.074	0.2466	0.2466	161001	40139741002	EPA 6020	241329000	
03067	64	00916	161221	01	1	75.2	M	M	M	0.074	0.2466	0.2466	161201	40143755003	EPA 6020	241329000	
03067	64	00916	170310	01	1	17.9	M	M	M	0.074	0.2466	0.2466	170301	40146662002	EPA 6020	241329000	
03067	64	00916	170602	01	1	13.1	M	M	M	0.0977	0.3256	0.3256	170601	40151013002	EPA 200.7	241329000	
03067	64	00916	171011	01	1	11	M	M	M	0.0977	0.3256	0.3256	171001	40158568002	EPA 200.7	241329000	
03067	64	00916	180426	01	1	6.55	M	M	M	0.0977	0.3256	0.3256	180401	40168127002	EPA 200.7	241329000	
03067	64	00916	181025	01	1	11	M	M	M	0.017	0.0567	0.0567	181001	AE31422	EPA 200.7	241329000	
03067	64	00916	190424	01	1	8.3	M	M	M	0.017	0.0567	0.0567	190401	AE36960	EPA 200.7	241329000	
03067	64	00916	191024	01	1	9.6	M	M	M	0.027	0.09	0.09	191001	AE41530	EPA 200.7	241329000	
03067	64	00916	200414	01	1	11	M	M	M	0.043	0.1433	0.1433	200401	AE45278	EPA 200.7	241329000	
03067	64	00916	201014	01	1	10.2	M	M	M	0.114	0.38	0.38	201001	AE49163	EPA 200.7	241329000	
03067	64	00916	210421	01	1	11.5	M	M	M	0.114	0.38	0.38	210401	AE52823	EPA 200.7	241329000	
03067	64	00916	211026	01	1	15.7	M	M	M	0.114	0.38	0.38	211001	AE56950	EPA 200.7	241329000	
03067	64	00916	220412	01	1	17	M	M	M	0.0762	0.254	0.254	220401	AE60080	EPA 200.7	241329000	
03067	64	00916	221025	01	1	17.1	M	M	M	0.114	0.38	0.38	221001	AE63596	EPA 200.7	241329000	
03067	64	00916	230607	01	1	15.6	M	M	M	0.114	0.5	0.5	230601	230612	40263347001	EPA 200.7	405132750
03067	64	00916	230712	01	1	18.6	M	M	M	0.114	0.5	0.5	230701	230717	40265075001	EPA 200.7	405132750
03067	64	00916	230816	01	1	28.1	M	M	M	0.227	1.	1.	230801	230822	AE68557	EPA 200.7	241329000
03067	64	00916	230920	01	1	28	M	M	M	0.114	0.5	0.5	230901	230925	AE69145	EPA 200.7	241329000
03067	64	00940	160218	01	1	4	M	M	M	2.	6.666	6.666	160201	40128408001	EPA 300.0	241329000	
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03067	64	00940	160615	01	1	3.6	M	M	M	2.	6.666	6.666	160601	40133877003	EPA 300.0	241329000	
03067	64	00940	160810	01	1	4.9	M	M	M	2.	6.666	6.666	160801	40136543003	EPA 300.0	241329000	
03067	64	00940	161005	01	1	0.97	M	M	M	0.5	1.6665	1.6665	161001	40139741002	EPA 300.0	241329000	

03067	64	00940	161221	01	1	21	M	M	M	0.5	1.6665	1.6665	161201	40143755003	EPA 300.0	241329000
03067	64	00940	170310	01	1	3.6	M	M	M	0.5	1.6665	1.6665	170301	40146662002	EPA 300.0	241329000
03067	64	00940	170602	01	1	1.6	M	M	M	0.5	1.6665	1.6665	170601	40151013002	EPA 300.0	241329000
03067	64	00940	171011	01	1	0.86	M	M	M	0.5	1.6665	1.6665	171001	40158568002	EPA 300.0	241329000
03067	64	00940	180426	01	1	0.72	M	M	M	0.5	1.6665	1.6665	180401	40168127002	EPA 300.0	241329000
03067	64	00940	181025	01	1	0.29	M	M	M	0.21	0.6999	0.6999	181001	AE31422	EPA 300.0	241329000
03067	64	00940	190424	01	1	0.53	M	M	M	0.21	0.6999	0.6999	190401	AE36960	EPA 300.0	241329000
03067	64	00940	191024	01	1	0.51	M	M	M	0.18	0.5999	0.5999	191001	AE41530	EPA 300.0	241329000
03067	64	00940	200414	01	1	0.54	M	M	M	0.002	0.0067	0.0067	200401	AE45278	EPA 300.0	241329000
03067	64	00940	201014	01	1	0.61	M	M	M	0.002	0.0067	0.0067	201001	AE49163	EPA 300.0	241329000
03067	64	00940	210421	01	1	1.3	M	M	M	0.43	1.4332	1.4332	210401	AE52823	EPA 300.0	241329000
03067	64	00940	211026	01	1	1.6	F	M	M	0.43	1.4332	1.4332	211001	AE56950	EPA 300.0	241329000
03067	64	00940	220412	01	1	1.7	M	M	M	0.43	1.4332	1.4332	220401	AE60080	EPA 300.0	241329000
03067	64	00940	221025	01	1	2.3	M	M	M	0.43	1.4332	1.4332	221001	AE63596	EPA 300.0	241329000
03067	64	00945	160218	01	1	12.5	M	M	M	2.	6.666	6.666	160201	40128408001	EPA 300.0	241329000
03067	64	00945	160405	01	1	16.6	M	M	M	2.	6.666	6.666	160401	40130257002	EPA 300.0	241329000
03067	64	00945	160615	01	1	13.1	M	M	M	2.	6.666	6.666	160601	40133877003	EPA 300.0	241329000
03067	64	00945	160810	01	1	20.7	M	M	M	2.	6.666	6.666	160801	40136543003	EPA 300.0	241329000
03067	64	00945	161005	01	1	4.5	M	M	M	1.	3.333	3.333	161001	40139741002	EPA 300.0	241329000
03067	64	00945	161221	01	1	202	M	M	M	10.	33.33	33.33	161201	40143755003	EPA 300.0	241329000
03067	64	00945	170310	01	1	30	M	M	M	1.	3.333	3.333	170301	40146662002	EPA 300.0	241329000
03067	64	00945	170602	01	1	31.5	M	M	M	1.	3.333	3.333	170601	40151013002	EPA 300.0	241329000
03067	64	00945	171011	01	1	15.7	M	M	M	1.	3.333	3.333	171001	40158568002	EPA 300.0	241329000
03067	64	00945	180426	01	1	13.1	M	M	M	1.	3.333	3.333	180401	40168127002	EPA 300.0	241329000
03067	64	00945	181025	01	1	17	M	M	M	0.11	0.3666	0.3666	181001	AE31422	EPA 300.0	241329000
03067	64	00945	190424	01	1	13	M	M	M	0.11	0.3666	0.3666	190401	AE36960	EPA 300.0	241329000
03067	64	00945	191024	01	1	18	M	M	M	0.14	0.4666	0.4666	191001	AE41530	EPA 300.0	241329000
03067	64	00945	200414	01	1	14	M	M	M	0.031	0.1033	0.1033	200401	AE45278	EPA 300.0	241329000
03067	64	00945	201014	01	1	20	M	M	M	0.031	0.1033	0.1033	201001	AE49163	EPA 300.0	241329000
03067	64	00945	210421	01	1	27.2	M	M	M	0.44	1.4665	1.4665	210401	AE52823	EPA 300.0	241329000
03067	64	00945	211026	01	1	21.1	M	M	M	0.44	1.4665	1.4665	211001	AE56950	EPA 300.0	241329000
03067	64	00945	220412	01	1	36.5	M	M	M	0.44	1.4665	1.4665	220401	AE60080	EPA 300.0	241329000
03067	64	00945	221025	01	1	15.8	M	M	M	0.44	1.4665	1.4665	221001	AE63596	EPA 300.0	241329000
03067	64	00951	160218	01	1		N	M	M	0.2	0.6666	0.6666	160201	40128408001	EPA 300.0	241329000
03067	64	00951	160405	01	1		N	M	M	0.2	0.6666	0.6666	160401	40130257002	EPA 300.0	241329000
03067	64	00951	160615	01	1		N	M	M	0.2	0.6666	0.6666	160601	40133877003	EPA 300.0	241329000
03067	64	00951	160810	01	1		N	M	M	0.2	0.6666	0.6666	160801	40136543003	EPA 300.0	241329000
03067	64	00951	161005	01	1		N	M	M	0.1	0.3333	0.3333	161001	40139741002	EPA 300.0	241329000
03067	64	00951	161221	01	1		N	M	M	0.1	0.3333	0.3333	161201	40143755003	EPA 300.0	241329000
03067	64	00951	170310	01	1		N	M	M	0.1	0.3333	0.3333	170301	40146662002	EPA 300.0	241329000
03067	64	00951	170602	01	1		N	M	M	0.1	0.3333	0.3333	170601	40151013002	EPA 300.0	241329000
03067	64	00951	171011	01	1		N	M	M	0.1	0.3333	0.3333	171001	40158568002	EPA 300.0	241329000
03067	64	00951	180426	01	1		N	M	M	0.1	0.3333	0.3333	180401	40168127002	EPA 300.0	241329000
03067	64	00951	181025	01	1	0.066	M	M	M	0.04	0.1333	0.1333	181001	AE31422	EPA 300.0	241329000
03067	64	00951	190424	01	1	0.04	M	M	M	0.04	0.1333	0.1333	190401	AE36960	EPA 300.0	241329000
03067	64	00951	191024	01	1		N	M	M	0.07	0.2333	0.2333	191001	AE41530	EPA 300.0	241329000
03067	64	00951	200414	01	1	0.013	M	M	M	0.007	0.0233	0.0233	200401	AE45278	EPA 300.0	241329000
03067	64	00951	200901	01	1	0.015	M	M	M	0.007	0.0233	0.0233	200901	AE48236	EPA 300.0	241329000
03067	64	00951	201014	01	1	0.03	M	M	M	0.007	0.0233	0.0233	201001	AE49163	EPA 300.0	241329000
03067	64	00951	210421	01	1		N	M	M	0.095	0.3166	0.3166	210401	AE52823	EPA 300.0	241329000
03067	64	00951	211026	01	1		N	M	M	0.095	0.3166	0.3166	211001	AE56950	EPA 300.0	241329000
03067	64	00951	220412	01	1		N	M	M	0.095	0.3166	0.3166	220401	AE60080	EPA 300.0	241329000
03067	64	00951	221025	01	1		N	M	M	0.095	0.3166	0.3166	221001	AE63596	EPA 300.0	241329000
03067	64	01002	160218	01	1	0.5	M	M	M	0.11	0.3666	0.3666	160201	40128408001	EPA 6020A	241329000
03067	64	01002	160405	01	1		N	M	M	0.73	2.4331	2.4331	160401	40130257002	EPA 6020A	241329000
03067	64	01002	160615	01	1	0.37	M	M	M	0.099	0.33	0.33	160601	40133877003	EPA 6020	241329000
03067	64	01002	160810	01	1	0.52	M	M	M	0.099	0.33	0.33	160801	40136543003	EPA 6020	241329000
03067	64	01002	161005	01	1	0.65	M	M	M	0.099	0.33	0.33	161001	40139741002	EPA 6020	241329000
03067	64	01002	161221	01	1	0.76	M	M	M	0.099	0.33	0.33	161201	40143755003	EPA 6020	241329000
03067	64	01002	170310	01	1	0.26	M	M	M	0.099	0.33	0.33	170301	40146662002	EPA 6020	241329000
03067	64	01002	170602	01	1	0.52	M	M	M	0.28	0.9332	0.9332	170601	40151013002	EPA 200.8	241329000
03067	64	01007	160218	01	1	28.4	M	M	M	0.15	0.5	0.5	160201	40128408001	EPA 6020A	241329000
03067	64	01007	160405	01	1	28.8	M	M	M	0.057	0.19	0.19	160401	40130257002	EPA 6020A	241329000
03067	64	01007	160615	01	1	32.8	M	M	M	0.062	0.2066	0.2066	160601	40133877003	EPA 6020	241329000
03067	64	01007	160810	01	1	42.6	M	M	M	0.062	0.2066	0.2066	160801	40136543003	EPA 6020	241329000
03067	64	01007	161005	01	1	109	M	M	M	0.062	0.2066	0.2066	161001	40139741002	EPA 6020	241329000
03067	64	01007	161221	01	1	128	M	M	M	0.062	0.2066	0.2066	161201	40143755003	EPA 6020	241329000
03067	64	01007	170310	01	1	22	M	M	M	0.062	0.2066	0.2066	170301	40146662002	EPA 6020	241329000
03067	64	01007	170602	01	1	25	M	M	M	1.5	4.9995	4.9995	170601	40151013002	EPA 200.7	241329000
03067	64	01012	160218	01	1	0.00027	M	M	M	0.	0.0001	0.0001	160201	40128408001	EPA 6020A	241329000
03067	64	01012	160405	01	1		N	M	M	0.	0.0001	0.0001	160401	40130257002	EPA 6020A	241329000
03067	64	01012	160615	01	1	0.00015	M	M	M	0.0001	0.0004	0.0004	160601	40133877003	EPA 6020	241329000
03067	64	01012	160810	01	1	0.00019	M	M	M	0.0001	0.0004	0.0004	160801	40136543003	EPA 6020	241329000

03067	64	01012	161005	01	1	N	M	M	M	0.0001	0.0004	0.0004	161001	40139741002	EPA 6020	241329000		
03067	64	01012	161221	01	1	N	M	M	M	0.0001	0.0004	0.0004	161201	40143755003	EPA 6020	241329000		
03067	64	01012	170310	01	1	N	M	M	M	0.0001	0.0004	0.0004	170301	40146662002	EPA 6020	241329000		
03067	64	01012	170602	01	1	N	M	M	M	0.0012	0.004	0.004	170601	40151013002	EPA 200.7	241329000		
03067	64	01022	160218	01	1	0.048	M	M	M	0.0021	0.007	0.007	160201	40128408001	EPA 6020A	241329000		
03067	64	01022	160405	01	1	0.012	M	M	M	0.0004	0.0015	0.0015	160401	40130257002	EPA 6020A	241329000		
03067	64	01022	160615	01	1	0.035	M	M	M	0.002	0.0067	0.0067	160601	40133877003	EPA 6020	241329000		
03067	64	01022	160810	01	1	0.041	M	M	M	0.002	0.0067	0.0067	160801	40136543003	EPA 6020	241329000		
03067	64	01022	161005	01	1	0.1	M	M	M	0.002	0.0067	0.0067	161001	40139741002	EPA 6020	241329000		
03067	64	01022	161221	01	1	0.098	M	M	M	0.002	0.0067	0.0067	161201	40143755003	EPA 6020	241329000		
03067	64	01022	170310	01	1	0.029	M	M	M	0.002	0.0067	0.0067	170301	40146662002	EPA 6020	241329000		
03067	64	01022	170602	01	1	0.11	M	M	M	0.0067	0.0223	0.0223	170601	40151013002	EPA 200.7	241329000		
03067	64	01022	171011	01	1	0.0559	M	M	M	0.0067	0.0223	0.0223	171001	40158568002	EPA 200.7	241329000		
03067	64	01022	180426	01	1	0.0292	M	M	M	0.0067	0.0223	0.0223	180401	40168127002	EPA 200.7	241329000		
03067	64	01022	181025	01	1	0.025	M	M	M	0.0023	0.0077	0.0077	181001	AE31422	EPA 200.7	241329000		
03067	64	01022	190424	01	1	0.018	M	M	M	0.0023	0.0077	0.0077	190401	AE36960	EPA 200.7	241329000		
03067	64	01022	191024	01	1	0.023	M	M	M	0.0045	0.015	0.015	191001	AE41530	EPA 200.7	241329000		
03067	64	01022	200414	01	1	0.014	M	M	M	0.0035	0.0117	0.0117	200401	AE45278	EPA 200.7	241329000		
03067	64	01022	201014	01	1	0.0373	M	M	M	0.0173	0.0577	0.0577	201001	AE49163	EPA 200.7	241329000		
03067	64	01022	210421	01	1	0.0276	F	M	M	0.0173	0.0577	0.0577	210401	AE52823	EPA 200.7	241329000		
03067	64	01022	211026	01	1	0.0352	M	M	M	0.0173	0.0577	0.0577	211001	AE56950	EPA 200.7	241329000		
03067	64	01022	220412	01	1	0.0205	F	M	M	0.003	0.01	0.01	220401	AE60080	EPA 200.7	241329000		
03067	64	01022	221025	01	1	0.0204	M	M	M	0.0173	0.0577	0.0577	221001	AE63596	EPA 200.7	241329000		
03067	64	01027	160218	01	1		N	M	M	M	0.027	0.09	160201	40128408001	EPA 6020A	241329000		
03067	64	01027	160405	01	1		N	M	M	M	0.025	0.0833	0.0833	160401	40130257002	EPA 6020A	241329000	
03067	64	01027	160615	01	1		N	M	M	M	0.089	0.2966	0.2966	160601	40133877003	EPA 6020	241329000	
03067	64	01027	160810	01	1		N	M	M	M	0.089	0.2966	0.2966	160801	40136543003	EPA 6020	241329000	
03067	64	01027	161005	01	1		N	M	M	M	0.089	0.2966	0.2966	161001	40139741002	EPA 6020	241329000	
03067	64	01027	161221	01	1	0.094	M	M	M	0.089	0.2966	0.2966	161201	40143755003	EPA 6020	241329000		
03067	64	01027	170310	01	1	0.09	M	M	M	0.089	0.2966	0.2966	170301	40146662002	EPA 6020	241329000		
03067	64	01027	170602	01	1		N	M	M	M	1.3	4.3329	4.3329	170601	40151013002	EPA 200.7	241329000	
03067	64	01034	160218	01	1	5.2	M	M	M	0.24	0.7999	0.7999	160201	40128408001	EPA 6020A	241329000		
03067	64	01034	160405	01	1	0.56	M	M	M	0.079	0.2633	0.2633	160401	40130257002	EPA 6020A	241329000		
03067	64	01034	160615	01	1	2.9	M	M	M	0.39	1.2999	1.2999	160601	40133877003	EPA 6020	241329000		
03067	64	01034	160810	01	1	2.7	M	M	M	0.39	1.2999	1.2999	160801	40136543003	EPA 6020	241329000		
03067	64	01034	161005	01	1	1	M	M	M	0.39	1.2999	1.2999	161001	40139741002	EPA 6020	241329000		
03067	64	01034	161221	01	1	1.6	M	M	M	0.39	1.2999	1.2999	161201	40143755003	EPA 6020	241329000		
03067	64	01034	170310	01	1	1.3	M	M	M	0.39	1.2999	1.2999	170301	40146662002	EPA 6020	241329000		
03067	64	01034	170602	01	1		N	M	M	M	2.5	8.3325	8.3325	170601	40151013002	EPA 200.7	241329000	
03067	64	01037	160218	01	1	1.3	M	M	M	0.052	0.1733	0.1733	160201	40128408001	EPA 6020A	241329000		
03067	64	01037	160405	01	1	0.16	M	M	M	0.051	0.17	0.17	160401	40130257002	EPA 6020A	241329000		
03067	64	01037	160615	01	1	0.7	M	M	M	0.036	0.12	0.12	160601	40133877003	EPA 6020	241329000		
03067	64	01037	160810	01	1	0.54	M	M	M	0.036	0.12	0.12	160801	40136543003	EPA 6020	241329000		
03067	64	01037	161005	01	1	1	M	M	M	0.036	0.12	0.12	161001	40139741002	EPA 6020	241329000		
03067	64	01037	161221	01	1	0.3	M	M	M	0.036	0.12	0.12	161201	40143755003	EPA 6020	241329000		
03067	64	01037	170310	01	1	0.25	M	M	M	0.036	0.12	0.12	170301	40146662002	EPA 6020	241329000		
03067	64	01037	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601	40151013002	EPA 200.7	241329000	
03067	64	01042	221025	01	1		N	M	M	M	3.4	11.3322	11.3322	221001	AE63596	EPA 200.7	241329000	
03067	64	01042	230607	01	1		N	M	M	M	3.4	10.	10.	230601	230612	40263347001	EPA 200.7	405132750
03067	64	01042	230712	01	1		N	M	M	M	3.4	10.	10.	230701	230717	40265075001	EPA 200.7	405132750
03067	64	01042	230816	01	1	55.7	M	M	M	6.7	20.	20.	230801	230822	AE68557	EPA 200.7	241329000	
03067	64	01042	230920	01	1	20.7	M	M	M	3.4	10.	10.	230901	230925	AE69145	EPA 200.7	241329000	
03067	64	01051	160218	01	1	0.78	M	M	M	0.033	0.11	0.11	160201	40128408001	EPA 6020A	241329000		
03067	64	01051	160405	01	1	0.13	M	M	M	0.025	0.0833	0.0833	160401	40130257002	EPA 6020A	241329000		
03067	64	01051	160615	01	1	0.23	M	M	M	0.04	0.1333	0.1333	160601	40133877003	EPA 6020	241329000		
03067	64	01051	160810	01	1	0.13	M	M	M	0.04	0.1333	0.1333	160801	40136543003	EPA 6020	241329000		
03067	64	01051	161005	01	1	0.044	M	M	M	0.04	0.1333	0.1333	161001	40139741002	EPA 6020	241329000		
03067	64	01051	161221	01	1	0.16	M	M	M	0.04	0.1333	0.1333	161201	40143755003	EPA 6020	241329000		
03067	64	01051	170310	01	1	0.18	M	M	M	0.04	0.1333	0.1333	170301	40146662002	EPA 6020	241329000		
03067	64	01051	170602	01	1	0.44	M	M	M	0.2	0.6666	0.6666	170601	40151013002	EPA 200.8	241329000		
03067	64	01055	221025	01	1	4.7	M	M	M	1.5	4.9995	4.9995	221001	AE63596	EPA 200.7	241329000		
03067	64	01055	230607	01	1	2.4	J	M	M	M	1.5	5.	5.	230601	230612	40263347001	EPA 200.7	405132750
03067	64	01055	230712	01	1	4.4	J	M	M	M	1.5	5.	5.	230701	230717	40265075001	EPA 200.7	405132750
03067	64	01055	230816	01	1	342	M	M	M	3.1	10.	10.	230801	230822	AE68557	EPA 200.7	241329000	
03067	64	01055	230920	01	1	121	M	M	M	1.5	5.	5.	230901	230925	AE69145	EPA 200.7	241329000	
03067	64	01059	160218	01	1	0.047	M	M	M	0.018	0.06	0.06	160201	40128408001	EPA 6020A	241329000		
03067	64	01059	160405	01	1		N	M	M	M	0.012	0.04	0.04	160401	40130257002	EPA 6020A	241329000	
03067	64	01059	160615	01	1		N	M	M	M	0.14	0.4666	0.4666	160601	40133877003	EPA 6020	241329000	
03067	64	01059	160810	01	1	0.28	M	M	M	0.14	0.4666	0.4666	160801	40136543003	EPA 6020	241329000		
03067	64	01059	161005	01	1		N	M	M	M	0.14	0.4666	0.4666	161001	40139741002	EPA 6020	241329000	
03067	64	01059	161221	01	1		N	M	M	M	0.14	0.4666	0.4666	161201	40143755003	EPA 6020	241329000	
03067	64	01059	170310	01	1	0.2	M	M	M	0.14	0.4666	0.4666	170301	40146662002	EPA 6020	241329000		
03067	64	01059	170602	01	1	0.29	M	M	M	0.14	0.4666	0.4666	170601	40151013002	EPA 200.8	241329000		

03067	64	01062	160218	01	1	0.31	M	M	M	0.074	0.2466	0.2466	160201	40128408001	EPA 6020A	241329000		
03067	64	01062	160405	01	1	0.36	M	M	M	0.037	0.1233	0.1233	160401	40130257002	EPA 6020A	241329000		
03067	64	01062	160615	01	1	0.33	M	M	M	0.07	0.2333	0.2333	160601	40133877003	EPA 6020	241329000		
03067	64	01062	160810	01	1	0.25	M	M	M	0.07	0.2333	0.2333	160801	40136543003	EPA 6020	241329000		
03067	64	01062	161005	01	1	0.085	M	M	M	0.07	0.2333	0.2333	161001	40139741002	EPA 6020	241329000		
03067	64	01062	161221	01	1	0.18	M	M	M	0.07	0.2333	0.2333	161201	40143755003	EPA 6020	241329000		
03067	64	01062	170310	01	1	0.87	M	M	M	0.07	0.2333	0.2333	170301	40146662002	EPA 6020	241329000		
03067	64	01062	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601	40151013002	EPA 200.7	241329000	
03067	64	01077	221025	01	1		N	M	M	M	3.2	10.6656	10.6656	221001	AE63596	EPA 200.7	241329000	
03067	64	01077	230607	01	1		N	M	M	M	3.2	10.	10.	230601	230612	40263347001	EPA 200.7	405132750
03067	64	01077	230712	01	1		N	M	M	M	3.2	10.	10.	230701	230717	40265075001	EPA 200.7	405132750
03067	64	01077	230816	01	1		N	M	M	M	6.4	20.	20.	230801	230822	AE68557	EPA 200.7	241329000
03067	64	01077	230920	01	1		N	M	M	M	3.2	10.	10.	230901	230925	AE69145	EPA 200.7	241329000
03067	64	01092	221025	01	1		N	M	M	M	11.6	38.6628	38.6628	221001	AE63596	EPA 200.7	241329000	
03067	64	01092	230607	01	1		N	M	M	M	11.6	40.	40.	230601	230612	40263347001	EPA 200.7	405132750
03067	64	01092	230712	01	1		N	M	M	M	11.6	40.	40.	230701	230717	40265075001	EPA 200.7	405132750
03067	64	01092	230816	01	1	91.2	M	M	M	23.1	80.	80.	230801	230822	AE68557	EPA 200.7	241329000	
03067	64	01092	230920	01	1	33.3	J	M	M	M	11.6	40.	40.	230901	230925	AE69145	EPA 200.7	241329000
03067	64	01097	160218	01	1		N	M	M	M	0.066	0.22	0.22	160201	40128408001	EPA 6020A	241329000	
03067	64	01097	160405	01	1		N	M	M	M	0.034	0.1133	0.1133	160401	40130257002	EPA 6020A	241329000	
03067	64	01097	160615	01	1		N	M	M	M	0.073	0.2433	0.2433	160601	40133877003	EPA 6020	241329000	
03067	64	01097	160810	01	1		N	M	M	M	0.073	0.2433	0.2433	160801	40136543003	EPA 6020	241329000	
03067	64	01097	161005	01	1		N	M	M	M	0.073	0.2433	0.2433	161001	40139741002	EPA 6020	241329000	
03067	64	01097	161221	01	1	0.24	M	M	M	0.073	0.2433	0.2433	161201	40143755003	EPA 6020	241329000		
03067	64	01097	170310	01	1	0.2	M	M	M	0.073	0.2433	0.2433	170301	40146662002	EPA 6020	241329000		
03067	64	01097	170602	01	1		N	M	M	M	0.15	0.5	0.5	170601	40151013002	EPA 200.8	241329000	
03067	64	01132	160218	01	1	0.0019	M	M	M	0.0001	0.0004	0.0004	160201	40128408001	EPA 6020A	241329000		
03067	64	01132	160405	01	1	0.00044	M	M	M	0.0001	0.0002	0.0002	160401	40130257002	EPA 6020A	241329000		
03067	64	01132	160615	01	1	0.001	M	M	M	0.0001	0.0004	0.0004	160601	40133877003	EPA 6020	241329000		
03067	64	01132	160810	01	1	0.00099	M	M	M	0.0001	0.0004	0.0004	160801	40136543003	EPA 6020	241329000		
03067	64	01132	161005	01	1	0.00051	M	M	M	0.0001	0.0004	0.0004	161001	40139741002	EPA 6020	241329000		
03067	64	01132	161221	01	1	0.00066	M	M	M	0.0001	0.0004	0.0004	161201	40143755003	EPA 6020	241329000		
03067	64	01132	170310	01	1	0.00045	M	M	M	0.0001	0.0004	0.0004	170301	40146662002	EPA 6020	241329000		
03067	64	01132	170602	01	1	0.0012	M	M	M	0.0001	0.0005	0.0005	170601	40151013002	EPA 200.8	241329000		
03067	64	01147	160218	01	1	0.33	M	M	M	0.16	0.5333	0.5333	160201	40128408001	EPA 6020A	241329000		
03067	64	01147	160405	01	1	0.31	M	M	M	0.12	0.4	0.4	160401	40130257002	EPA 6020A	241329000		
03067	64	01147	160615	01	1	0.45	M	M	M	0.21	0.6999	0.6999	160601	40133877003	EPA 6020	241329000		
03067	64	01147	160810	01	1	0.37	M	M	M	0.21	0.6999	0.6999	160801	40136543003	EPA 6020	241329000		
03067	64	01147	161005	01	1	0.71	M	M	M	0.21	0.6999	0.6999	161001	40139741002	EPA 6020	241329000		
03067	64	01147	161221	01	1	1.4	M	M	M	0.21	0.6999	0.6999	161201	40143755003	EPA 6020	241329000		
03067	64	01147	170310	01	1	0.44	M	M	M	0.21	0.6999	0.6999	170301	40146662002	EPA 6020	241329000		
03067	64	01147	170602	01	1	0.77	M	M	M	0.32	1.0666	1.0666	170601	40151013002	EPA 200.8	241329000		
03067	64	04189	160219	01	1	1189.69	M	M	M	0.	0.	0.	160201	LS-100	Calculated	241329000		
03067	64	04189	160411	01	1	1191.34	M	M	M	0.	0.	0.	160401	LS-100	Calculated	241329000		
03067	64	04189	160615	01	1	1191.12	M	M	M	0.	0.	0.	160601	LS-100	Calculated	241329000		
03067	64	04189	160803	01	1	1189.73	M	M	M	0.	0.	0.	160801	LS-100	Calculated	241329000		
03067	64	04189	161220	01	1	1190.28	M	M	M	0.	0.	0.	161201	LS-100	Calculated	241329000		
03067	64	04189	170310	01	1	1191.97	M	M	M	0.	0.	0.	170301	LS-100	Calculated	241329000		
03067	64	04189	170602	01	1	1192.04	M	M	M	0.	0.	0.	170601	LS-100	Calculated	241329000		
03067	64	04189	200901	01	1	1189.15	M	M	M	0.	0.	0.	200901	AE48236	calculated	241329000		
03067	64	11503	160218	01	1	1.003	M	M	M	1.32	4.3996	4.3996	160201	40128408001	EPA 903.1	241329000		
03067	64	11503	160405	01	1	1.39	M	M	M	0.485	1.6165	1.6165	160401	40130257002	EPA 903.1	241329000		
03067	64	11503	160615	01	1	0.724	M	M	M	0.968	3.2263	3.2263	160601	40133877003	EPA 903.1	241329000		
03067	64	11503	160810	01	1	0.36	M	M	M	0.444	1.4799	1.4799	160801	40136543003	EPA 903.1	241329000		
03067	64	11503	161005	01	1	1.119	M	M	M	0.511	1.7032	1.7032	161001	40139741002	EPA 903.1	241329000		
03067	64	11503	161221	01	1	0.695	M	M	M	0.826	2.7531	2.7531	161201	40143755003	EPA 903.1	241329000		
03067	64	11503	170310	01	1	0.326	M	M	M	1.56	5.1995	5.1995	170301	40146662002	Total Radium Cal	241329000		
03067	64	11503	170602	01	1	0.996	M	M	M	0.	0.	0.	170601	40151013002	Total Radium Cal	241329000		
03067	64	70300	160218	01	1	122	M	M	M	8.7	28.9971	28.9971	160201	40128408001	SM 2540C	241329000		
03067	64	70300	160405	01	1	150	M	M	M	8.7	28.9971	28.9971	160401	40130257002	SM 2540C	241329000		
03067	64	70300	160615	01	1	148	M	M	M	8.7	28.9971	28.9971	160601	40133877003	SM 2540C	241329000		
03067	64	70300	160810	01	1	182	M	M	M	8.7	28.9971	28.9971	160801	40136543003	SM 2540C	241329000		
03067	64	70300	161005	01	1	306	M	M	M	8.7	28.9971	28.9971	161001	40139741002	SM 2540C	241329000		
03067	64	70300	161221	01	1	360	M	M	M	8.7	28.9971	28.9971	161201	40143755003	SM 2540C	241329000		
03067	64	70300	170310	01	1	98	M	M	M	8.7	28.9971	28.9971	170301	40146662002	SM 2540C	241329000		
03067	64	70300	170602	01	1	94	M	M	M	8.7	28.9971	28.9971	170601	40151013002	SM 2540C	241329000		
03067	64	70300	171011	01	1	80	M	M	M	8.7	28.9971	28.9971	171001	40158568002	SM 2540C	241329000		
03067	64	70300	180426	01	1	82	M	M	M	8.7	28.9971	28.9971	180401	40168127002	SM 2540C	241329000		
03067	64	70300	181025	01	1	50	M	M	M	20.	66.66	66.66	181001	AE31422	Std Mtd 2540 C	241329000		
03067	64	70300	190424	01	1	30	M	M	M	20.	66.66	66.66	190401	AE36960	Std Mtd 2540 C	241329000		
03067	64	70300	191024	01	1	50	M	M	M	20.	66.66	66.66	191001	AE41530	Std Mtd 2540 C	241329000		
03067	64	70300	200414	01	1	42	M	M	M	20.	66.66	66.66	200401	AE45278	Std Mtd 2540 C	241329000		
03067	64	70300	201014	01	1	56	M	M	M	20.	66.66	66.66	201001	AE49163	Std Mtd 2540 C	241329000		

03067	64	70300	210421	01	1	44	M	M	M	8.7	28.9971	28.9971	210401	AE52823	Std Mtd 2540 C	241329000		
03067	64	70300	211026	01	1	90	M	M	M	8.7	28.9971	28.9971	211001	AE56950	Std Mtd 2540 C	241329000		
03067	64	70300	220412	01	1	94	M	M	M	8.7	28.9971	28.9971	220401	AE60080	Std Mtd 2540 C	241329000		
03067	64	70300	221025	01	1	112	M	M	M	8.7	28.9971	28.9971	221001	AE63596	Std Mtd 2540 C	241329000		
03067	64	70300	231030	01	1	116	M	M	M	8.7	20.	20.	231001	231101	40270382001	SM 2540C	405132750	
03067	64	71900	160218	01	1		N	M	M	M	0.1	0.3333	0.3333	160201	40128408001	EPA 7470	241329000	
03067	64	71900	160405	01	1		N	M	M	M	0.1	0.3333	0.3333	160401	40130257002	EPA 7470	241329000	
03067	64	71900	160615	01	1		N	M	M	M	0.13	0.4333	0.4333	160601	40133877003	EPA 7470	241329000	
03067	64	71900	160810	01	1		N	M	M	M	0.13	0.4333	0.4333	160801	40136543003	EPA 7470	241329000	
03067	64	71900	161005	01	1		N	M	M	M	0.13	0.4333	0.4333	161001	40139741002	EPA 7470	241329000	
03067	64	71900	161221	01	1		N	M	M	M	0.13	0.4333	0.4333	161201	40143755003	EPA 7470	241329000	
03067	64	71900	170310	01	1		N	M	M	M	0.13	0.4333	0.4333	170301	40146662002	EPA 7470	241329000	
03067	64	71900	170602	01	1		N	M	M	M	0.13	0.4333	0.4333	170601	40151013002	EPA 245.1	241329000	
03067	68	00010	160615	01	1	9.56	M	M	M	0.1	0.3333	0.3333	160601	40133877002	FIELD	241329000		
03067	68	00010	160810	01	1	12.65	M	M	M	0.1	0.3333	0.3333	160801	40136543002	FIELD	241329000		
03067	68	00010	161221	01	1	9.86	M	M	M	0.1	0.3333	0.3333	161201	40143755002	FIELD	241329000		
03067	68	00010	170310	01	1	6.02	M	M	M	0.1	0.3333	0.3333	170301	40146662003	FIELD	241329000		
03067	68	00010	170602	01	1	8.89	M	M	M	0.1	0.3333	0.3333	170601	40151013003	FIELD	241329000		
03067	68	00010	200901	01	1	11.8	M	M	M	0.1	0.3333	0.3333	200901	AE48237	TEMP	241329000		
03067	68	00010	230607	01	1	8.9	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347002	TEMP	241329000	
03067	68	00010	230712	01	1	9.5	M	M	M	0.1	0.1	0.1	230701	230712	40265075002	TEMP	241329000	
03067	68	00010	230816	01	1	11.6	M	M	M	0.1	0.3333	0.3333	230801	230816	AE68558	TEMP	241329000	
03067	68	00094	160615	01	1	55	M	M	M	0.	0.	0.	160601	40133877002	FIELD	241329000		
03067	68	00094	160810	01	1	102	M	M	M	0.	0.	0.	160801	40136543002	FIELD	241329000		
03067	68	00094	161221	01	1	70	M	M	M	0.	0.	0.	161201	40143755002	FIELD	241329000		
03067	68	00094	170310	01	1	40	M	M	M	0.	0.	0.	170301	40146662003	FIELD	241329000		
03067	68	00094	170602	01	1	35	M	M	M	0.	0.	0.	170601	40151013003	FIELD	241329000		
03067	68	00094	200901	01	1	51	M	M	M	0.	0.	0.	200901	AE48237	FCOND25	241329000		
03067	68	00094	230607	01	1	30	M	M	M	0.	0.	0.	230601	230607	40263347002	FCOND25	241329000	
03067	68	00094	230712	01	1	44	M	M	M	0.	0.	0.	230701	230712	40265075002	FCOND25	241329000	
03067	68	00094	230816	01	1	55.4	M	M	M	0.	0.	0.	230801	230816	AE68558	FCOND25	241329000	
03067	68	00400	160615	01	1	6.28	M	M	M	0.1	0.3333	0.3333	160601	40133877002	FIELD	241329000		
03067	68	00400	160810	01	1	6.4	M	M	M	0.1	0.3333	0.3333	160801	40136543002	FIELD	241329000		
03067	68	00400	161221	01	1	6.99	M	M	M	0.1	0.3333	0.3333	161201	40143755002	FIELD	241329000		
03067	68	00400	170310	01	1	7.47	M	M	M	0.1	0.3333	0.3333	170301	40146662003	FIELD	241329000		
03067	68	00400	170602	01	1	7.8	M	M	M	0.1	0.3333	0.3333	170601	40151013003	FIELD	241329000		
03067	68	00400	200901	01	1	5.85	M	M	M	0.1	0.3333	0.3333	200901	AE48237	FieldPH	241329000		
03067	68	00400	230607	01	1	5.33	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347002	FIELDPH	241329000	
03067	68	00400	230712	01	1	6.04	M	M	M	0.1	0.1	0.1	230701	230712	40265075002	FIELDPH	241329000	
03067	68	00400	230816	01	1	6.1	M	M	M	0.1	0.1	0.1	230801	230816	AE68558	FieldPH	241329000	
03067	68	00410	170602	01	1	10.2	M	M	M	5.	16.665	16.665	170601	40151013003	SM 2320B	241329000		
03067	68	00410	191024	01	1	15	M	M	M	5.	16.665	16.665	191001	AE41538	Std Mtd 2320B	241329000		
03067	68	00410	201014	01	1	31	M	M	M	5.	16.665	16.665	201001	AE49164	Std Mtd 2320B	241329000		
03067	68	00410	211026	01	1	22.8	M	M	M	5.	16.665	16.665	211001	AE56951	Std Mtd 2320B	241329000		
03067	68	00410	220412	01	1	9.4	M	M	M	5.2	17.3316	17.3316	220401	AE60081	Std Mtd 2320B	241329000		
03067	68	00410	221025	01	1	26.2	M	M	M	5.	16.665	16.665	221001	AE63597	Std Mtd 2320B	241329000		
03067	68	00630	221025	01	1	0.651	M	M	M	0.065	0.2166	0.2166	221001	AE63597	EPA 300.0	241329000		
03067	68	00630	230607	01	1	0.2	J	M	M	M	0.059	0.25	0.25	230601	230619	40263347002	EPA 353.2	405132750
03067	68	00630	230712	01	1	0.18	J	M	M	M	0.059	0.25	0.25	230701	230725	40265075002	EPA 353.2	405132750
03067	68	00630	230816	01	1	0.25	M	M	M	0.059	0.25	0.25	230801	230829	AE68558	EPA 353.2	405132750	
03067	68	00630	230920	01	1	0.32	M	M	M	0.065	0.25	0.25	230901	230922	AE69146	EPA 353.2	405132750	
03067	68	00900	230607	01	1	9.78	M	M	M	1.	5.4	5.4	230601	230612	40263347002	EPA 200.7	405132750	
03067	68	00900	230712	01	1	15.6	M	M	M	1.	5.4	5.4	230701	230717	40265075002	EPA 200.7	405132750	
03067	68	00900	230816	01	1	20.4	M	M	M	1.	5.4	5.4	230801	230821	AE68558	Std Mtd 2340B	241329000	
03067	68	00900	230920	01	1	207	M	M	M	1.	5.4	5.4	230901	230925	AE69146	Std Mtd 2340B	241329000	
03067	68	00916	160218	01	1	5.2	M	M	M	0.019	0.0633	0.0633	160201	40128408002	EPA 6020A	241329000		
03067	68	00916	160405	01	1	3.4	M	M	M	0.01	0.0333	0.0333	160401	40130257003	EPA 6020A	241329000		
03067	68	00916	160615	01	1	4.7	M	M	M	0.074	0.2466	0.2466	160601	40133877002	EPA 6020	241329000		
03067	68	00916	160810	01	1	11.6	M	M	M	0.074	0.2466	0.2466	160801	40136543002	EPA 6020	241329000		
03067	68	00916	161005	01	1	6.8	M	M	M	0.074	0.2466	0.2466	161001	40139741003	EPA 6020	241329000		
03067	68	00916	161221	01	1	6.9	M	M	M	0.074	0.2466	0.2466	161201	40143755002	EPA 6020	241329000		
03067	68	00916	170310	01	1	3.3	M	M	M	0.074	0.2466	0.2466	170301	40146662003	EPA 6020	241329000		
03067	68	00916	170602	01	1	2.5	M	M	M	0.0977	0.3256	0.3256	170601	40151013003	EPA 200.7	241329000		
03067	68	00916	171011	01	1	11.4	M	M	M	0.0977	0.3256	0.3256	171001	40158568003	EPA 200.7	241329000		
03067	68	00916	180426	01	1	4.18	M	M	M	0.0977	0.3256	0.3256	180401	40168127003	EPA 200.7	241329000		
03067	68	00916	181025	01	1	3	M	M	M	0.017	0.0567	0.0567	181001	AE31423	EPA 200.7	241329000		
03067	68	00916	190424	01	1	4.2	M	M	M	0.017	0.0567	0.0567	190401	AE36961	EPA 200.7	241329000		
03067	68	00916	191024	01	1	3.1	M	M	M	0.027	0.09	0.09	191001	AE41531	EPA 200.7	241329000		
03067	68	00916	200414	01	1	2.4	M	M	M	0.043	0.1433	0.1433	200401	AE45279	EPA 200.7	241329000		
03067	68	00916	201014	01	1	7.78	M	M	M	0.114	0.38	0.38	201001	AE49164	EPA 200.7	241329000		
03067	68	00916	210421	01	1	2.75	M	M	M	0.114	0.38	0.38	210401	AE52824	EPA 200.7	241329000		
03067	68	00916	211026	01	1	5.42	M	M	M	0.114	0.38	0.38	211001	AE56951	EPA 200.7	241329000		
03067	68	00916	220412	01	1	2.7	M	M	M	0.0762	0.254	0.254	220401	AE60081	EPA 200.7	241329000		

03067	68	00916	221025	01	1	6.3	M	M	M	0.114	0.38	0.38	221001	AE63597	EPA 200.7	241329000	
03067	68	00916	230607	01	1	2.65	M	M	M	0.114	0.5	0.5	230601	230612	40263347002	EPA 200.7	405132750
03067	68	00916	230712	01	1	4.63	M	M	M	0.114	0.5	0.5	230701	230717	40265075002	EPA 200.7	405132750
03067	68	00916	230816	01	1	6.25	M	M	M	0.114	0.5	0.5	230801	230821	AE68558	EPA 200.7	241329000
03067	68	00916	230920	01	1	6.51	M	M	M	0.114	0.5	0.5	230901	230925	AE69146	EPA 200.7	241329000
03067	68	00940	160218	01	1	2.9	M	M	M	2.	6.666	6.666	160201	40128408002	EPA 300.0	241329000	
03067	68	00940	160405	01	1	2.3	M	M	M	2.	6.666	6.666	160401	40130257003	EPA 300.0	241329000	
03067	68	00940	160615	01	1	2.6	M	M	M	2.	6.666	6.666	160601	40133877002	EPA 300.0	241329000	
03067	68	00940	160810	01	1	2.4	M	M	M	2.	6.666	6.666	160801	40136543002	EPA 300.0	241329000	
03067	68	00940	161005	01	1	2	M	M	M	0.5	1.6665	1.6665	161001	40139741003	EPA 300.0	241329000	
03067	68	00940	161221	01	1	0.82	M	M	M	0.5	1.6665	1.6665	161201	40143755002	EPA 300.0	241329000	
03067	68	00940	170310	01	1		N	M	M	M	0.5	1.6665	1.6665	170301	40146662003	EPA 300.0	241329000
03067	68	00940	170602	01	1	0.72	M	M	M	0.5	1.6665	1.6665	170601	40151013003	EPA 300.0	241329000	
03067	68	00940	171011	01	1	0.76	M	M	M	0.5	1.6665	1.6665	171001	40158568003	EPA 300.0	241329000	
03067	68	00940	180426	01	1	0.54	M	M	M	0.5	1.6665	1.6665	180401	40168127003	EPA 300.0	241329000	
03067	68	00940	181025	01	1	0.4	M	M	M	0.21	0.6999	0.6999	181001	AE31423	EPA 300.0	241329000	
03067	68	00940	190424	01	1	0.62	M	M	M	0.21	0.6999	0.6999	190401	AE36961	EPA 300.0	241329000	
03067	68	00940	191024	01	1	0.28	M	M	M	0.18	0.5999	0.5999	191001	AE41531	EPA 300.0	241329000	
03067	68	00940	200414	01	1	0.17	M	M	M	0.002	0.0067	0.0067	200401	AE45279	EPA 300.0	241329000	
03067	68	00940	201014	01	1	0.4	M	M	M	0.002	0.0067	0.0067	201001	AE49164	EPA 300.0	241329000	
03067	68	00940	210421	01	1	0.57	M	M	M	0.43	1.4332	1.4332	210401	AE52824	EPA 300.0	241329000	
03067	68	00940	211026	01	1	2.5	F	M	M	0.43	1.4332	1.4332	211001	AE56951	EPA 300.0	241329000	
03067	68	00940	220412	01	1	0.59	M	M	M	0.43	1.4332	1.4332	220401	AE60081	EPA 300.0	241329000	
03067	68	00940	221025	01	1	0.49	M	M	M	0.43	1.4332	1.4332	221001	AE63597	EPA 300.0	241329000	
03067	68	00945	160218	01	1	5.6	M	M	M	2.	6.666	6.666	160201	40128408002	EPA 300.0	241329000	
03067	68	00945	160405	01	1	5.6	M	M	M	2.	6.666	6.666	160401	40130257003	EPA 300.0	241329000	
03067	68	00945	160615	01	1	4.8	M	M	M	2.	6.666	6.666	160601	40133877002	EPA 300.0	241329000	
03067	68	00945	160810	01	1	4.1	M	M	M	2.	6.666	6.666	160801	40136543002	EPA 300.0	241329000	
03067	68	00945	161005	01	1	13.3	M	M	M	1.	3.333	3.333	161001	40139741003	EPA 300.0	241329000	
03067	68	00945	161221	01	1	4.3	M	M	M	1.	3.333	3.333	161201	40143755002	EPA 300.0	241329000	
03067	68	00945	170310	01	1	4.4	M	M	M	1.	3.333	3.333	170301	40146662003	EPA 300.0	241329000	
03067	68	00945	170602	01	1	4.1	M	M	M	1.	3.333	3.333	170601	40151013003	EPA 300.0	241329000	
03067	68	00945	171011	01	1	5.9	M	M	M	1.	3.333	3.333	171001	40158568003	EPA 300.0	241329000	
03067	68	00945	180426	01	1	4.1	M	M	M	1.	3.333	3.333	180401	40168127003	EPA 300.0	241329000	
03067	68	00945	181025	01	1	3.1	M	M	M	0.11	0.3666	0.3666	181001	AE31423	EPA 300.0	241329000	
03067	68	00945	190424	01	1	2.6	M	M	M	0.11	0.3666	0.3666	190401	AE36961	EPA 300.0	241329000	
03067	68	00945	191024	01	1	2.6	M	M	M	0.14	0.4666	0.4666	191001	AE41531	EPA 300.0	241329000	
03067	68	00945	200414	01	1	2.6	M	M	M	0.031	0.1033	0.1033	200401	AE45279	EPA 300.0	241329000	
03067	68	00945	201014	01	1	3.9	M	M	M	0.031	0.1033	0.1033	201001	AE49164	EPA 300.0	241329000	
03067	68	00945	210421	01	1	2.3	M	M	M	0.44	1.4665	1.4665	210401	AE52824	EPA 300.0	241329000	
03067	68	00945	211026	01	1	2.6	M	M	M	0.44	1.4665	1.4665	211001	AE56951	EPA 300.0	241329000	
03067	68	00945	220412	01	1	2.1	M	M	M	0.44	1.4665	1.4665	220401	AE60081	EPA 300.0	241329000	
03067	68	00945	221025	01	1	2.7	M	M	M	0.44	1.4665	1.4665	221001	AE63597	EPA 300.0	241329000	
03067	68	00951	160218	01	1		N	M	M	M	0.2	0.6666	0.6666	160201	40128408002	EPA 300.0	241329000
03067	68	00951	160405	01	1		N	M	M	M	0.2	0.6666	0.6666	160401	40130257003	EPA 300.0	241329000
03067	68	00951	160615	01	1		N	M	M	M	0.2	0.6666	0.6666	160601	40133877002	EPA 300.0	241329000
03067	68	00951	160810	01	1		N	M	M	M	0.2	0.6666	0.6666	160801	40136543002	EPA 300.0	241329000
03067	68	00951	161005	01	1		N	M	M	M	0.1	0.3333	0.3333	161001	40139741003	EPA 300.0	241329000
03067	68	00951	161221	01	1		N	M	M	M	0.1	0.3333	0.3333	161201	40143755002	EPA 300.0	241329000
03067	68	00951	170310	01	1		N	M	M	M	0.1	0.3333	0.3333	170301	40146662003	EPA 300.0	241329000
03067	68	00951	170602	01	1		N	M	M	M	0.1	0.3333	0.3333	170601	40151013003	EPA 300.0	241329000
03067	68	00951	171011	01	1		N	M	M	M	0.1	0.3333	0.3333	171001	40158568003	EPA 300.0	241329000
03067	68	00951	180426	01	1		N	M	M	M	0.1	0.3333	0.3333	180401	40168127003	EPA 300.0	241329000
03067	68	00951	181025	01	1	0.061	M	M	M	0.04	0.1333	0.1333	181001	AE31423	EPA 300.0	241329000	
03067	68	00951	190424	01	1		N	M	M	M	0.04	0.1333	0.1333	190401	AE36961	EPA 300.0	241329000
03067	68	00951	191024	01	1		N	M	M	M	0.07	0.2333	0.2333	191001	AE41531	EPA 300.0	241329000
03067	68	00951	200414	01	1	0.022	M	M	M	0.007	0.0233	0.0233	200401	AE45279	EPA 300.0	241329000	
03067	68	00951	200901	01	1	0.0087	M	M	M	0.007	0.0233	0.0233	200901	AE48237	EPA 300.0	241329000	
03067	68	00951	201014	01	1	0.03	M	M	M	0.007	0.0233	0.0233	201001	AE49164	EPA 300.0	241329000	
03067	68	00951	210421	01	1		N	M	M	M	0.095	0.3166	0.3166	210401	AE52824	EPA 300.0	241329000
03067	68	00951	211026	01	1		N	M	M	M	0.095	0.3166	0.3166	211001	AE56951	EPA 300.0	241329000
03067	68	00951	220412	01	1		N	M	M	M	0.095	0.3166	0.3166	220401	AE60081	EPA 300.0	241329000
03067	68	00951	221025	01	1		N	M	M	M	0.095	0.3166	0.3166	221001	AE63597	EPA 300.0	241329000
03067	68	01002	160218	01	1		N	M	M	M	0.11	0.3666	0.3666	160201	40128408002	EPA 6020A	241329000
03067	68	01002	160405	01	1		N	M	M	M	0.73	2.4331	2.4331	160401	40130257003	EPA 6020A	241329000
03067	68	01002	160615	01	1	0.18	M	M	M	0.099	0.33	0.33	160601	40133877002	EPA 6020	241329000	
03067	68	01002	160810	01	1	0.27	M	M	M	0.099	0.33	0.33	160801	40136543002	EPA 6020	241329000	
03067	68	01002	161005	01	1		N	M	M	M	0.099	0.33	0.33	161001	40139741003	EPA 6020	241329000
03067	68	01002	161221	01	1	0.2	M	M	M	0.099	0.33	0.33	161201	40143755002	EPA 6020	241329000	
03067	68	01002	170310	01	1	0.23	M	M	M	0.099	0.33	0.33	170301	40146662003	EPA 6020	241329000	
03067	68	01002	170602	01	1		N	M	M	M	0.28	0.9332	0.9332	170601	40151013003	EPA 200.8	241329000
03067	68	01007	160218	01	1	18.5	M	M	M	0.15	0.5	0.5	160201	40128408002	EPA 6020A	241329000	
03067	68	01007	160405	01	1	20.7	M	M	M	0.057	0.19	0.19	160401	40130257003	EPA 6020A	241329000	

03067	68	01007	160615	01	1	23.9	M	M	M	0.062	0.2066	0.2066	160601	40133877002	EPA 6020	241329000	
03067	68	01007	160810	01	1	52.5	M	M	M	0.062	0.2066	0.2066	160801	40136543002	EPA 6020	241329000	
03067	68	01007	161005	01	1	32.7	M	M	M	0.062	0.2066	0.2066	161001	40139741003	EPA 6020	241329000	
03067	68	01007	161221	01	1	27.3	M	M	M	0.062	0.2066	0.2066	161201	40143755002	EPA 6020	241329000	
03067	68	01007	170310	01	1	18.8	M	M	M	0.062	0.2066	0.2066	170301	40146662003	EPA 6020	241329000	
03067	68	01007	170602	01	1	15.4	M	M	M	1.5	4.9995	4.9995	170601	40151013003	EPA 200.7	241329000	
03067	68	01012	160218	01	1		N	M	M	0.	0.0001	0.0001	160201	40128408002	EPA 6020A	241329000	
03067	68	01012	160405	01	1		N	M	M	0.	0.0001	0.0001	160401	40130257003	EPA 6020A	241329000	
03067	68	01012	160615	01	1		N	M	M	0.0001	0.0004	0.0004	160601	40133877002	EPA 6020	241329000	
03067	68	01012	160810	01	1		N	M	M	0.0001	0.0004	0.0004	160801	40136543002	EPA 6020	241329000	
03067	68	01012	161005	01	1		N	M	M	0.0001	0.0004	0.0004	161001	40139741003	EPA 6020	241329000	
03067	68	01012	161221	01	1		N	M	M	0.0001	0.0004	0.0004	161201	40143755002	EPA 6020	241329000	
03067	68	01012	170310	01	1		N	M	M	0.0001	0.0004	0.0004	170301	40146662003	EPA 6020	241329000	
03067	68	01012	170602	01	1		N	M	M	0.0012	0.004	0.004	170601	40151013003	EPA 200.7	241329000	
03067	68	01022	160218	01	1	0.0086	M	M	M	0.0021	0.007	0.007	160201	40128408002	EPA 6020A	241329000	
03067	68	01022	160405	01	1	0.0096	M	M	M	0.0004	0.0015	0.0015	160401	40130257003	EPA 6020A	241329000	
03067	68	01022	160615	01	1	0.0097	M	M	M	0.002	0.0067	0.0067	160601	40133877002	EPA 6020	241329000	
03067	68	01022	160810	01	1	0.014	M	M	M	0.002	0.0067	0.0067	160801	40136543002	EPA 6020	241329000	
03067	68	01022	161005	01	1	0.012	M	M	M	0.002	0.0067	0.0067	161001	40139741003	EPA 6020	241329000	
03067	68	01022	161221	01	1	0.012	M	M	M	0.002	0.0067	0.0067	161201	40143755002	EPA 6020	241329000	
03067	68	01022	170310	01	1	0.0092	M	M	M	0.002	0.0067	0.0067	170301	40146662003	EPA 6020	241329000	
03067	68	01022	170602	01	1	0.043	M	M	M	0.0067	0.0223	0.0223	170601	40151013003	EPA 200.7	241329000	
03067	68	01022	171011	01	1	0.0138	M	M	M	0.0067	0.0223	0.0223	171001	40158568003	EPA 200.7	241329000	
03067	68	01022	180426	01	1		N	M	M	0.0067	0.0223	0.0223	180401	40168127003	EPA 200.7	241329000	
03067	68	01022	181025	01	1	0.014	M	M	M	0.0023	0.0077	0.0077	181001	AE31423	EPA 200.7	241329000	
03067	68	01022	190424	01	1	0.0081	M	M	M	0.0023	0.0077	0.0077	190401	AE36961	EPA 200.7	241329000	
03067	68	01022	191024	01	1	0.012	M	M	M	0.0045	0.015	0.015	191001	AE41531	EPA 200.7	241329000	
03067	68	01022	200414	01	1	0.008	M	M	M	0.0035	0.0117	0.0117	200401	AE45279	EPA 200.7	241329000	
03067	68	01022	201014	01	1		N	M	M	0.0173	0.0577	0.0577	201001	AE49164	EPA 200.7	241329000	
03067	68	01022	210421	01	1		N	M	M	0.0173	0.0577	0.0577	210401	AE52824	EPA 200.7	241329000	
03067	68	01022	211026	01	1		N	M	M	0.0173	0.0577	0.0577	211001	AE56951	EPA 200.7	241329000	
03067	68	01022	220412	01	1	0.0092	F	M	M	0.003	0.01	0.01	220401	AE60081	EPA 200.7	241329000	
03067	68	01022	221025	01	1		N	M	M	0.0173	0.0577	0.0577	221001	AE63597	EPA 200.7	241329000	
03067	68	01027	160218	01	1		N	M	M	0.027	0.09	0.09	160201	40128408002	EPA 6020A	241329000	
03067	68	01027	160405	01	1		N	M	M	0.025	0.0833	0.0833	160401	40130257003	EPA 6020A	241329000	
03067	68	01027	160615	01	1		N	M	M	0.089	0.2966	0.2966	160601	40133877002	EPA 6020	241329000	
03067	68	01027	160810	01	1		N	M	M	0.089	0.2966	0.2966	160801	40136543002	EPA 6020	241329000	
03067	68	01027	161005	01	1		N	M	M	0.089	0.2966	0.2966	161001	40139741003	EPA 6020	241329000	
03067	68	01027	161221	01	1		N	M	M	0.089	0.2966	0.2966	161201	40143755002	EPA 6020	241329000	
03067	68	01027	170310	01	1		N	M	M	0.089	0.2966	0.2966	170301	40146662003	EPA 6020	241329000	
03067	68	01027	170602	01	1		N	M	M	1.3	4.3329	4.3329	170601	40151013003	EPA 200.7	241329000	
03067	68	01034	160218	01	1	0.25	M	M	M	0.24	0.7999	0.7999	160201	40128408002	EPA 6020A	241329000	
03067	68	01034	160405	01	1	0.68	M	M	M	0.079	0.2633	0.2633	160401	40130257003	EPA 6020A	241329000	
03067	68	01034	160615	01	1		N	M	M	0.39	1.2999	1.2999	160601	40133877002	EPA 6020	241329000	
03067	68	01034	160810	01	1	0.44	M	M	M	0.39	1.2999	1.2999	160801	40136543002	EPA 6020	241329000	
03067	68	01034	161005	01	1		N	M	M	0.39	1.2999	1.2999	161001	40139741003	EPA 6020	241329000	
03067	68	01034	161221	01	1	0.42	M	M	M	0.39	1.2999	1.2999	161201	40143755002	EPA 6020	241329000	
03067	68	01034	170310	01	1	1.1	M	M	M	0.39	1.2999	1.2999	170301	40146662003	EPA 6020	241329000	
03067	68	01034	170602	01	1		N	M	M	2.5	8.3325	8.3325	170601	40151013003	EPA 200.7	241329000	
03067	68	01037	160218	01	1	0.079	M	M	M	0.052	0.1733	0.1733	160201	40128408002	EPA 6020A	241329000	
03067	68	01037	160405	01	1	0.15	M	M	M	0.051	0.17	0.17	160401	40130257003	EPA 6020A	241329000	
03067	68	01037	160615	01	1	0.081	M	M	M	0.036	0.12	0.12	160601	40133877002	EPA 6020	241329000	
03067	68	01037	160810	01	1	0.087	M	M	M	0.036	0.12	0.12	160801	40136543002	EPA 6020	241329000	
03067	68	01037	161005	01	1	0.061	M	M	M	0.036	0.12	0.12	161001	40139741003	EPA 6020	241329000	
03067	68	01037	161221	01	1	0.11	M	M	M	0.036	0.12	0.12	161201	40143755002	EPA 6020	241329000	
03067	68	01037	170310	01	1	0.17	M	M	M	0.036	0.12	0.12	170301	40146662003	EPA 6020	241329000	
03067	68	01037	170602	01	1		N	M	M	1.4	4.6662	4.6662	170601	40151013003	EPA 200.7	241329000	
03067	68	01042	221025	01	1	4.6	M	M	M	3.4	11.3322	11.3322	221001	AE63597	EPA 200.7	241329000	
03067	68	01042	230607	01	1		N	M	M	3.4	10.	10.	230601	230612	40263347002	EPA 200.7	405132750
03067	68	01042	230712	01	1		N	M	M	3.4	10.	10.	230701	230717	40265075002	EPA 200.7	405132750
03067	68	01042	230816	01	1		N	M	M	3.4	10.	10.	230801	230821	AE68558	EPA 200.7	241329000
03067	68	01042	230920	01	1		N	M	M	3.4	10.	10.	230901	230925	AE69146	EPA 200.7	241329000
03067	68	01051	160218	01	1	0.1	M	M	M	0.033	0.11	0.11	160201	40128408002	EPA 6020A	241329000	
03067	68	01051	160405	01	1	0.17	M	M	M	0.025	0.0833	0.0833	160401	40130257003	EPA 6020A	241329000	
03067	68	01051	160615	01	1	0.068	M	M	M	0.04	0.1333	0.1333	160601	40133877002	EPA 6020	241329000	
03067	68	01051	160810	01	1	0.044	M	M	M	0.04	0.1333	0.1333	160801	40136543002	EPA 6020	241329000	
03067	68	01051	161005	01	1		N	M	M	0.04	0.1333	0.1333	161001	40139741003	EPA 6020	241329000	
03067	68	01051	161221	01	1	0.057	M	M	M	0.04	0.1333	0.1333	161201	40143755002	EPA 6020	241329000	
03067	68	01051	170310	01	1	0.14	M	M	M	0.04	0.1333	0.1333	170301	40146662003	EPA 6020	241329000	
03067	68	01051	170602	01	1		N	M	M	0.2	0.6666	0.6666	170601	40151013003	EPA 200.8	241329000	
03067	68	01055	221025	01	1	2	M	M	M	1.5	4.9995	4.9995	221001	AE63597	EPA 200.7	241329000	
03067	68	01055	230607	01	1	2.5	J	M	M	1.5	5.	5.	230601	230612	40263347002	EPA 200.7	405132750
03067	68	01055	230712	01	1	4	J	M	M	1.5	5.	5.	230701	230717	40265075002	EPA 200.7	405132750

03067	68	01055	230816	01	1	2.1	J	M	M	M	1.5	5.	5.	230801	230821	AE68558	EPA 200.7	241329000
03067	68	01055	230920	01	1	3.1	J	M	M	M	1.5	5.	5.	230901	230925	AE69146	EPA 200.7	241329000
03067	68	01059	160218	01	1		N	M	M	M	0.018	0.06	0.06	160201		40128408002	EPA 6020A	241329000
03067	68	01059	160405	01	1		N	M	M	M	0.012	0.04	0.04	160401		40130257003	EPA 6020A	241329000
03067	68	01059	160615	01	1		N	M	M	M	0.14	0.4666	0.4666	160601		40133877002	EPA 6020	241329000
03067	68	01059	160810	01	1	0.93		M	M	M	0.14	0.4666	0.4666	160801		40136543002	EPA 6020	241329000
03067	68	01059	161005	01	1		N	M	M	M	0.14	0.4666	0.4666	161001		40139741003	EPA 6020	241329000
03067	68	01059	161221	01	1		N	M	M	M	0.14	0.4666	0.4666	161201		40143755002	EPA 6020	241329000
03067	68	01059	170310	01	1		N	M	M	M	0.14	0.4666	0.4666	170301		40146662003	EPA 6020	241329000
03067	68	01059	170602	01	1		N	M	M	M	0.14	0.4666	0.4666	170601		40151013003	EPA 200.8	241329000
03067	68	01062	160218	01	1	0.085		M	M	M	0.074	0.2466	0.2466	160201		40128408002	EPA 6020A	241329000
03067	68	01062	160405	01	1	0.41		M	M	M	0.037	0.1233	0.1233	160401		40130257003	EPA 6020A	241329000
03067	68	01062	160615	01	1		N	M	M	M	0.07	0.2333	0.2333	160601		40133877002	EPA 6020	241329000
03067	68	01062	160810	01	1	0.24		M	M	M	0.07	0.2333	0.2333	160801		40136543002	EPA 6020	241329000
03067	68	01062	161005	01	1	0.083		M	M	M	0.07	0.2333	0.2333	161001		40139741003	EPA 6020	241329000
03067	68	01062	161221	01	1	0.13		M	M	M	0.07	0.2333	0.2333	161201		40143755002	EPA 6020	241329000
03067	68	01062	170310	01	1	0.15		M	M	M	0.07	0.2333	0.2333	170301		40146662003	EPA 6020	241329000
03067	68	01062	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601		40151013003	EPA 200.7	241329000
03067	68	01077	221025	01	1		N	M	M	M	3.2	10.6656	10.6656	221001		AE63597	EPA 200.7	241329000
03067	68	01077	230607	01	1		N	M	M	M	3.2	10.	10.	230601	230612	40263347002	EPA 200.7	405132750
03067	68	01077	230712	01	1		N	M	M	M	3.2	10.	10.	230701	230717	40265075002	EPA 200.7	405132750
03067	68	01077	230816	01	1		N	M	M	M	3.2	10.	10.	230801	230821	AE68558	EPA 200.7	241329000
03067	68	01077	230920	01	1		N	M	M	M	3.2	10.	10.	230901	230925	AE69146	EPA 200.7	241329000
03067	68	01092	221025	01	1		N	M	M	M	11.6	38.6628	38.6628	221001		AE63597	EPA 200.7	241329000
03067	68	01092	230607	01	1		N	M	M	M	11.6	40.	40.	230601	230612	40263347002	EPA 200.7	405132750
03067	68	01092	230712	01	1		N	M	M	M	11.6	40.	40.	230701	230717	40265075002	EPA 200.7	405132750
03067	68	01092	230816	01	1		N	M	M	M	11.6	40.	40.	230801	230821	AE68558	EPA 200.7	241329000
03067	68	01092	230920	01	1	23.3	J	M	M	M	11.6	40.	40.	230901	230925	AE69146	EPA 200.7	241329000
03067	68	01097	160218	01	1		N	M	M	M	0.066	0.22	0.22	160201		40128408002	EPA 6020A	241329000
03067	68	01097	160405	01	1		N	M	M	M	0.034	0.1133	0.1133	160401		40130257003	EPA 6020A	241329000
03067	68	01097	160615	01	1		N	M	M	M	0.073	0.2433	0.2433	160601		40133877002	EPA 6020	241329000
03067	68	01097	160810	01	1		N	M	M	M	0.073	0.2433	0.2433	160801		40136543002	EPA 6020	241329000
03067	68	01097	161005	01	1		N	M	M	M	0.073	0.2433	0.2433	161001		40139741003	EPA 6020	241329000
03067	68	01097	161221	01	1	0.37		M	M	M	0.073	0.2433	0.2433	161201		40143755002	EPA 6020	241329000
03067	68	01097	170310	01	1		N	M	M	M	0.073	0.2433	0.2433	170301		40146662003	EPA 6020	241329000
03067	68	01097	170602	01	1		N	M	M	M	0.15	0.5	0.5	170601		40151013003	EPA 200.8	241329000
03067	68	01132	160218	01	1	0.00031		M	M	M	0.0001	0.0004	0.0004	160201		40128408002	EPA 6020A	241329000
03067	68	01132	160405	01	1	0.0004		M	M	M	0.0001	0.0002	0.0002	160401		40130257003	EPA 6020A	241329000
03067	68	01132	160615	01	1	0.0002		M	M	M	0.0001	0.0004	0.0004	160601		40133877002	EPA 6020	241329000
03067	68	01132	160810	01	1	0.00054		M	M	M	0.0001	0.0004	0.0004	160801		40136543002	EPA 6020	241329000
03067	68	01132	161005	01	1	0.00029		M	M	M	0.0001	0.0004	0.0004	161001		40139741003	EPA 6020	241329000
03067	68	01132	161221	01	1	0.00043		M	M	M	0.0001	0.0004	0.0004	161201		40143755002	EPA 6020	241329000
03067	68	01132	170310	01	1	0.00024		M	M	M	0.0001	0.0004	0.0004	170301		40146662003	EPA 6020	241329000
03067	68	01132	170602	01	1	0.00025		M	M	M	0.0001	0.0005	0.0005	170601		40151013003	EPA 200.8	241329000
03067	68	01147	160218	01	1	0.25		M	M	M	0.16	0.5333	0.5333	160201		40128408002	EPA 6020A	241329000
03067	68	01147	160405	01	1	0.24		M	M	M	0.12	0.4	0.4	160401		40130257003	EPA 6020A	241329000
03067	68	01147	160615	01	1	0.34		M	M	M	0.21	0.6999	0.6999	160601		40133877002	EPA 6020	241329000
03067	68	01147	160810	01	1		N	M	M	M	0.21	0.6999	0.6999	160801		40136543002	EPA 6020	241329000
03067	68	01147	161005	01	1		N	M	M	M	0.21	0.6999	0.6999	161001		40139741003	EPA 6020	241329000
03067	68	01147	161221	01	1	0.25		M	M	M	0.21	0.6999	0.6999	161201		40143755002	EPA 6020	241329000
03067	68	01147	170310	01	1	0.42		M	M	M	0.21	0.6999	0.6999	170301		40146662003	EPA 6020	241329000
03067	68	01147	170602	01	1	0.44		M	M	M	0.32	1.0666	1.0666	170601		40151013003	EPA 200.8	241329000
03067	68	04189	160219	01	1	1193.12		M	M	M	0.	0.	0.	160201		LS-101	Calculated	241329000
03067	68	04189	160411	01	1	1195.77		M	M	M	0.	0.	0.	160401		LS-101	Calculated	241329000
03067	68	04189	160615	01	1	1195.02		M	M	M	0.	0.	0.	160601		LS-101	Calculated	241329000
03067	68	04189	160803	01	1	1192.76		M	M	M	0.	0.	0.	160801		LS-101	Calculated	241329000
03067	68	04189	161220	01	1	1193.31		M	M	M	0.	0.	0.	161201		LS-101	Calculated	241329000
03067	68	04189	170310	01	1	1196.4		M	M	M	0.	0.	0.	170301		LS-101	Calculated	241329000
03067	68	04189	170602	01	1	1195.26		M	M	M	0.	0.	0.	170601		LS-101	Calculated	241329000
03067	68	04189	200901	01	1	1190.93		M	M	M	0.	0.	0.	200901		AE48237	calculated	241329000
03067	68	11503	160218	01	1	1.528		M	M	M	1.13	3.7663	3.7663	160201		40128408002	EPA 903.1	241329000
03067	68	11503	160405	01	1	0.331		M	M	M	0.449	1.4965	1.4965	160401		40130257003	EPA 903.1	241329000
03067	68	11503	160615	01	1	1.577		M	M	M	0.715	2.3831	2.3831	160601		40133877002	EPA 903.1	241329000
03067	68	11503	160810	01	1	0.527		M	M	M	0.855	2.8497	2.8497	160801		40136543002	EPA 903.1	241329000
03067	68	11503	161005	01	1	1.199		M	M	M	0.508	1.6932	1.6932	161001		40139741003	EPA 903.1	241329000
03067	68	11503	161221	01	1	0.226		M	M	M	0.44	1.4665	1.4665	161201		40143755002	EPA 903.1	241329000
03067	68	11503	170310	01	1	0.193		M	M	M	1.7	5.6661	5.6661	170301		40146662003	Total Radium Cal	241329000
03067	68	11503	170602	01	1	0.375		M	M	M	0.	0.	0.	170601		40151013003	Total Radium Cal	241329000
03067	68	70300	160218	01	1	50		M	M	M	8.7	28.9971	28.9971	160201		40128408002	SM 2540C	241329000
03067	68	70300	160405	01	1	52		M	M	M	8.7	28.9971	28.9971	160401		40130257003	SM 2540C	241329000
03067	68	70300	160615	01	1	44		M	M	M	8.7	28.9971	28.9971	160601		40133877002	SM 2540C	241329000
03067	68	70300	160810	01	1	84		M	M	M	8.7	28.9971	28.9971	160801		40136543002	SM 2540C	241329000
03067	68	70300	161005	01	1	70		M	M	M	8.7	28.9971	28.9971	161001		40139741003	SM 2540C	241329000

03067	68	70300	161221	01	1	60	M	M	M	8.7	28.9971	28.9971	161201	40143755002	SM 2540C	241329000
03067	68	70300	170310	01	1	28	M	M	M	8.7	28.9971	28.9971	170301	40146662003	SM 2540C	241329000
03067	68	70300	170602	01	1	30	M	M	M	8.7	28.9971	28.9971	170601	40151013003	SM 2540C	241329000
03067	68	70300	171011	01	1	62	M	M	M	8.7	28.9971	28.9971	171001	40158568003	SM 2540C	241329000
03067	68	70300	180426	01	1	58	M	M	M	8.7	28.9971	28.9971	180401	40168127003	SM 2540C	241329000
03067	68	70300	181025	01	1	44	M	M	M	20.	66.66	66.66	181001	AE31423	Std Mtd 2540 C	241329000
03067	68	70300	190424	01	1		N	M	M	20.	66.66	66.66	190401	AE36961	Std Mtd 2540 C	241329000
03067	68	70300	191024	01	1	27	M	M	M	20.	66.66	66.66	191001	AE41531	Std Mtd 2540 C	241329000
03067	68	70300	200414	01	1	24	M	M	M	20.	66.66	66.66	200401	AE45279	Std Mtd 2540 C	241329000
03067	68	70300	201014	01	1	120	M	M	M	20.	66.66	66.66	201001	AE49164	Std Mtd 2540 C	241329000
03067	68	70300	210421	01	1	12	M	M	M	8.7	28.9971	28.9971	210401	AE52824	Std Mtd 2540 C	241329000
03067	68	70300	211026	01	1	40	M	M	M	8.7	28.9971	28.9971	211001	AE56951	Std Mtd 2540 C	241329000
03067	68	70300	220412	01	1	38	M	M	M	8.7	28.9971	28.9971	220401	AE60081	Std Mtd 2540 C	241329000
03067	68	70300	221025	01	1	58	M	M	M	8.7	28.9971	28.9971	221001	AE63597	Std Mtd 2540 C	241329000
03067	68	70300	231030	01	1	50	M	M	M	8.7	20.	20.	231001	231101 40270382002	SM 2540C	405132750
03067	68	71900	160218	01	1		N	M	M	0.1	0.3333	0.3333	160201	40128408002	EPA 7470	241329000
03067	68	71900	160405	01	1		N	M	M	0.1	0.3333	0.3333	160401	40130257003	EPA 7470	241329000
03067	68	71900	160615	01	1		N	M	M	0.13	0.4333	0.4333	160601	40133877002	EPA 7470	241329000
03067	68	71900	160810	01	1		N	M	M	0.13	0.4333	0.4333	160801	40136543002	EPA 7470	241329000
03067	68	71900	161005	01	1		N	M	M	0.13	0.4333	0.4333	161001	40139741003	EPA 7470	241329000
03067	68	71900	161221	01	1		N	M	M	0.13	0.4333	0.4333	161201	40143755002	EPA 7470	241329000
03067	68	71900	170310	01	1		N	M	M	0.13	0.4333	0.4333	170301	40146662003	EPA 7470	241329000
03067	68	71900	170602	01	1		N	M	M	0.13	0.4333	0.4333	170601	40151013003	EPA 245.1	241329000
03067	82	00010	160615	01	1	11.75	M	M	M	0.1	0.3333	0.3333	160601	40133877004	FIELD	241329000
03067	82	00010	160810	01	1	15.52	M	M	M	0.1	0.3333	0.3333	160801	40136543004	FIELD	241329000
03067	82	00010	161221	01	1	8.22	M	M	M	0.1	0.3333	0.3333	161201	40143755005	FIELD	241329000
03067	82	00010	170310	01	1	5.95	M	M	M	0.1	0.3333	0.3333	170301	40146662004	FIELD	241329000
03067	82	00010	170602	01	1	11.52	M	M	M	0.1	0.3333	0.3333	170601	40151013004	FIELD	241329000
03067	82	00010	200901	01	1	17.8	M	M	M	0.1	0.3333	0.3333	200901	AE48238	TEMP	241329000
03067	82	00010	210301	01	1	5.5	M	M	M	0.1	0.3333	0.3333	210301	AE51791	TEMP	241329000
03067	82	00010	230607	01	1	10.5	M	M	M	0.1	0.3333	0.3333	230601	230607 40263347003	TEMP	241329000
03067	82	00010	230712	01	1	12	M	M	M	0.1	0.1	0.1	230701	230712 40265075003	TEMP	241329000
03067	82	00010	230816	01	1	13.7	M	M	M	0.1	0.3333	0.3333	230801	230816 AE68559	TEMP	241329000
03067	82	00010	230920	01	1	14	M	M	M	0.1	0.3333	0.3333	230901	230920 AE69147	TEMP	241329000
03067	82	00094	160615	01	1	157	M	M	M	0.	0.	0.	160601	40133877004	FIELD	241329000
03067	82	00094	160810	01	1	198	M	M	M	0.	0.	0.	160801	40136543004	FIELD	241329000
03067	82	00094	161221	01	1	340	M	M	M	0.	0.	0.	161201	40143755006	FIELD	241329000
03067	82	00094	170310	01	1	300	M	M	M	0.	0.	0.	170301	40146662004	FIELD	241329000
03067	82	00094	170602	01	1	160	M	M	M	0.	0.	0.	170601	40151013004	FIELD	241329000
03067	82	00094	200901	01	1	166	M	M	M	0.	0.	0.	200901	AE48238	FCOND25	241329000
03067	82	00094	210301	01	1	220	M	M	M	0.	0.	0.	210301	AE51791	FCOND25	241329000
03067	82	00094	230607	01	1	171	M	M	M	0.	0.	0.	230601	230607 40263347003	FCOND25	241329000
03067	82	00094	230712	01	1	176	M	M	M	0.	0.	0.	230701	230712 40265075003	FCOND25	241329000
03067	82	00094	230816	01	1	198	M	M	M	0.	0.	0.	230801	230816 AE68559	FCOND25	241329000
03067	82	00094	230920	01	1	212	M	M	M	0.	0.	0.	230901	230920 AE69147	FCOND25	241329000
03067	82	00400	160615	01	1	6.5	M	M	M	0.1	0.3333	0.3333	160601	40133877004	FIELD	241329000
03067	82	00400	160810	01	1	6.74	M	M	M	0.1	0.3333	0.3333	160801	40136543004	FIELD	241329000
03067	82	00400	161221	01	1	7.45	M	M	M	0.1	0.3333	0.3333	161201	40143755006	FIELD	241329000
03067	82	00400	170310	01	1	7.82	M	M	M	0.1	0.3333	0.3333	170301	40146662004	FIELD	241329000
03067	82	00400	170602	01	1	7.9	M	M	M	0.1	0.3333	0.3333	170601	40151013004	FIELD	241329000
03067	82	00400	200901	01	1	6.08	M	M	M	0.1	0.3333	0.3333	200901	AE48238	FieldPH	241329000
03067	82	00400	210301	01	1	6.29	M	M	M	0.1	0.3333	0.3333	210301	AE51791	FieldPH	241329000
03067	82	00400	230607	01	1	5.55	M	M	M	0.1	0.3333	0.3333	230601	230607 40263347003	FIELDPH	241329000
03067	82	00400	230712	01	1	6.14	M	M	M	0.1	0.1	0.1	230701	230712 40265075003	FIELDPH	241329000
03067	82	00400	230816	01	1	6.1	M	M	M	0.1	0.1	0.1	230801	230816 AE68559	FieldPH	241329000
03067	82	00400	230920	01	1	6	M	M	M	0.1	0.1	0.1	230901	230920 AE69147	FieldPH	241329000
03067	82	00410	170602	01	1	33.8	M	M	M	5.	16.665	16.665	170601	40151013004	SM 2320B	241329000
03067	82	00410	191024	01	1	67	M	M	M	5.	16.665	16.665	191001	AE41539	Std Mtd 2320B	241329000
03067	82	00410	201014	01	1	56	M	M	M	5.	16.665	16.665	201001	AE49165	Std Mtd 2320B	241329000
03067	82	00410	211026	01	1	65.5	M	M	M	5.	16.665	16.665	211001	AE56952	Std Mtd 2320B	241329000
03067	82	00410	220412	01	1	73.7	M	M	M	10.4	34.6632	34.6632	220401	AE60082	Std Mtd 2320B	241329000
03067	82	00410	221025	01	1	75.8	M	M	M	5.	16.665	16.665	221001	AE63598	Std Mtd 2320B	241329000
03067	82	00630	221025	01	1		N	M	M	0.065	0.2166	0.2166	221001	AE63598	EPA 300.0	241329000
03067	82	00630	230607	01	1		N	M	M	0.059	0.25	0.25	230601	230619 40263347003	EPA 353.2	405132750
03067	82	00630	230712	01	1		N	M	M	0.059	0.25	0.25	230701	230725 40265075003	EPA 353.2	405132750
03067	82	00630	230816	01	1		N	M	M	0.059	0.25	0.25	230801	230829 AE68559	EPA 353.2	405132750
03067	82	00630	230920	01	1		N	M	M	0.065	0.25	0.25	230901	230922 AE69147	EPA 353.2	405132750
03067	82	00900	230607	01	1	62.5	M	M	M	1.	5.4	5.4	230601	230612 40263347003	EPA 200.7	405132750
03067	82	00900	230712	01	1	69.1	M	M	M	1.	5.4	5.4	230701	230717 40265075003	EPA 200.7	405132750
03067	82	00900	230816	01	1	79.5	M	M	M	1.	5.4	5.4	230801	230821 AE68559	Std Mtd 2340B	241329000
03067	82	00900	230920	01	1	86	M	M	M	1.	5.4	5.4	230901	230925 AE69147	Std Mtd 2340B	241329000
03067	82	00916	160218	01	1	17.3	M	M	M	0.019	0.0633	0.0633	160201	40128408003	EPA 6020A	241329000
03067	82	00916	160405	01	1	14.2	M	M	M	0.01	0.0333	0.0333	160401	40130257004	EPA 6020A	241329000

03067	82	00916	160615	01	1	14.3	M	M	M	0.074	0.2466	0.2466	160601	40133877004	EPA 6020	241329000	
03067	82	00916	160810	01	1	20.1	M	M	M	0.074	0.2466	0.2466	160801	40136543004	EPA 6020	241329000	
03067	82	00916	161005	01	1	31.4	M	M	M	0.074	0.2466	0.2466	161001	40139741004	EPA 6020	241329000	
03067	82	00916	161221	01	1	34	M	M	M	0.074	0.2466	0.2466	161201	40143755005	EPA 6020	241329000	
03067	82	00916	170310	01	1	32.3	M	M	M	0.074	0.2466	0.2466	170301	40146662004	EPA 6020	241329000	
03067	82	00916	170602	01	1	14.2	M	M	M	0.0977	0.3256	0.3256	170601	40151013004	EPA 200.7	241329000	
03067	82	00916	171011	01	1	18.8	M	M	M	0.0977	0.3256	0.3256	171001	40158568004	EPA 200.7	241329000	
03067	82	00916	180426	01	1	18.7	M	M	M	0.0977	0.3256	0.3256	180401	40168127004	EPA 200.7	241329000	
03067	82	00916	181025	01	1	20	M	M	M	0.017	0.0567	0.0567	181001	AE31424	EPA 200.7	241329000	
03067	82	00916	190424	01	1	2.1	M	M	M	0.017	0.0567	0.0567	190401	AE36962	EPA 200.7	241329000	
03067	82	00916	191024	01	1	18	M	M	M	0.027	0.09	0.09	191001	AE41532	EPA 200.7	241329000	
03067	82	00916	200414	01	1	17	M	M	M	0.043	0.1433	0.1433	200401	AE45280	EPA 200.7	241329000	
03067	82	00916	201014	01	1	17.5	M	M	M	0.114	0.38	0.38	201001	AE49165	EPA 200.7	241329000	
03067	82	00916	210421	01	1	13.8	M	M	M	0.114	0.38	0.38	210401	AE52825	EPA 200.7	241329000	
03067	82	00916	211026	01	1	23.1	M	M	M	0.114	0.38	0.38	211001	AE56952	EPA 200.7	241329000	
03067	82	00916	220412	01	1	22	M	M	M	0.0762	0.254	0.254	220401	AE60082	EPA 200.7	241329000	
03067	82	00916	221025	01	1	23.2	M	M	M	0.114	0.38	0.38	221001	AE63598	EPA 200.7	241329000	
03067	82	00916	230607	01	1	17.9	M	M	M	0.114	0.5	0.5	230601	230612 40263347003	EPA 200.7	405132750	
03067	82	00916	230712	01	1	19.8	M	M	M	0.114	0.5	0.5	230701	230717 40265075003	EPA 200.7	405132750	
03067	82	00916	230816	01	1	22.9	M	M	M	0.114	0.5	0.5	230801	230821 AE68559	EPA 200.7	241329000	
03067	82	00916	230920	01	1	24.7	M	M	M	0.114	0.5	0.5	230901	230925 AE69147	EPA 200.7	241329000	
03067	82	00940	160218	01	1	4.2	M	M	M	2.	6.666	6.666	160201	40128408003	EPA 300.0	241329000	
03067	82	00940	160405	01	1	3.5	M	M	M	2.	6.666	6.666	160401	40130257004	EPA 300.0	241329000	
03067	82	00940	160615	01	1	3.5	M	M	M	2.	6.666	6.666	160601	40133877004	EPA 300.0	241329000	
03067	82	00940	160810	01	1	2.9	M	M	M	2.	6.666	6.666	160801	40136543004	EPA 300.0	241329000	
03067	82	00940	161005	01	1	12.4	M	M	M	5.	16.665	16.665	161001	40139741004	EPA 300.0	241329000	
03067	82	00940	161221	01	1	10.6	M	M	M	2.5	8.3325	8.3325	161201	40143755005	EPA 300.0	241329000	
03067	82	00940	170310	01	1	7.2	M	M	M	0.5	1.6665	1.6665	170301	40146662004	EPA 300.0	241329000	
03067	82	00940	170602	01	1	2.6	M	M	M	0.5	1.6665	1.6665	170601	40151013004	EPA 300.0	241329000	
03067	82	00940	171011	01	1	3.6	M	M	M	2.5	8.3325	8.3325	171001	40158568004	EPA 300.0	241329000	
03067	82	00940	180426	01	1	2.6	M	M	M	2.5	8.3325	8.3325	180401	40168127004	EPA 300.0	241329000	
03067	82	00940	181025	01	1	0.74	M	M	M	0.21	0.6999	0.6999	181001	AE31424	EPA 300.0	241329000	
03067	82	00940	190424	01	1	1.2	M	M	M	0.21	0.6999	0.6999	190401	AE36962	EPA 300.0	241329000	
03067	82	00940	191024	01	1	0.54	M	M	M	0.18	0.5999	0.5999	191001	AE41532	EPA 300.0	241329000	
03067	82	00940	200414	01	1	0.82	M	M	M	0.002	0.0067	0.0067	200401	AE45280	EPA 300.0	241329000	
03067	82	00940	201014	01	1	0.6	M	M	M	0.002	0.0067	0.0067	201001	AE49165	EPA 300.0	241329000	
03067	82	00940	210421	01	1	1.1	M	M	M	0.43	1.4332	1.4332	210401	AE52825	EPA 300.0	241329000	
03067	82	00940	211026	01	1	2.1	F	M	M	0.43	1.4332	1.4332	211001	AE56952	EPA 300.0	241329000	
03067	82	00940	220412	01	1	1.9	M	M	M	0.43	1.4332	1.4332	220401	AE60082	EPA 300.0	241329000	
03067	82	00940	221025	01	1	1.8	M	M	M	0.43	1.4332	1.4332	221001	AE63598	EPA 300.0	241329000	
03067	82	00945	160218	01	1	9.2	M	M	M	2.	6.666	6.666	160201	40128408003	EPA 300.0	241329000	
03067	82	00945	160405	01	1	10	M	M	M	2.	6.666	6.666	160401	40130257004	EPA 300.0	241329000	
03067	82	00945	160615	01	1	9.1	M	M	M	2.	6.666	6.666	160601	40133877004	EPA 300.0	241329000	
03067	82	00945	160810	01	1	4.8	M	M	M	2.	6.666	6.666	160801	40136543004	EPA 300.0	241329000	
03067	82	00945	161005	01	1	67.8	M	M	M	10.	33.33	33.33	161001	40139741004	EPA 300.0	241329000	
03067	82	00945	161221	01	1	58.6	M	M	M	5.	16.665	16.665	161201	40143755005	EPA 300.0	241329000	
03067	82	00945	170310	01	1	50.4	M	M	M	1.	3.333	3.333	170301	40146662004	EPA 300.0	241329000	
03067	82	00945	170602	01	1	26.5	M	M	M	1.	3.333	3.333	170601	40151013004	EPA 300.0	241329000	
03067	82	00945	171011	01	1	31	M	M	M	5.	16.665	16.665	171001	40158568004	EPA 300.0	241329000	
03067	82	00945	180426	01	1	15.9	M	M	M	5.	16.665	16.665	180401	40168127004	EPA 300.0	241329000	
03067	82	00945	181025	01	1	16	M	M	M	0.11	0.3666	0.3666	181001	AE31424	EPA 300.0	241329000	
03067	82	00945	190424	01	1	19	M	M	M	0.11	0.3666	0.3666	190401	AE36962	EPA 300.0	241329000	
03067	82	00945	191024	01	1	16	M	M	M	0.14	0.4666	0.4666	191001	AE41532	EPA 300.0	241329000	
03067	82	00945	200414	01	1	14	M	M	M	0.031	0.1033	0.1033	200401	AE45280	EPA 300.0	241329000	
03067	82	00945	201014	01	1	17	M	M	M	0.031	0.1033	0.1033	201001	AE49165	EPA 300.0	241329000	
03067	82	00945	210421	01	1	19.7	M	M	M	0.44	1.4665	1.4665	210401	AE52825	EPA 300.0	241329000	
03067	82	00945	211026	01	1	25.2	M	M	M	0.44	1.4665	1.4665	211001	AE56952	EPA 300.0	241329000	
03067	82	00945	220412	01	1	20.9	M	M	M	0.44	1.4665	1.4665	220401	AE60082	EPA 300.0	241329000	
03067	82	00945	221025	01	1	25.3	M	M	M	0.44	1.4665	1.4665	221001	AE63598	EPA 300.0	241329000	
03067	82	00951	160218	01	1		N	M	M	M	0.2	0.6666	0.6666	160201	40128408003	EPA 300.0	241329000
03067	82	00951	160405	01	1		N	M	M	M	0.2	0.6666	0.6666	160401	40130257004	EPA 300.0	241329000
03067	82	00951	160615	01	1		N	M	M	M	0.2	0.6666	0.6666	160601	40133877004	EPA 300.0	241329000
03067	82	00951	160810	01	1		N	M	M	M	0.2	0.6666	0.6666	160801	40136543004	EPA 300.0	241329000
03067	82	00951	161005	01	1		N	M	M	M	1.	3.333	3.333	161001	40139741004	EPA 300.0	241329000
03067	82	00951	161221	01	1		N	M	M	M	0.5	1.6665	1.6665	161201	40143755005	EPA 300.0	241329000
03067	82	00951	170310	01	1		N	M	M	M	0.1	0.3333	0.3333	170301	40146662004	EPA 300.0	241329000
03067	82	00951	170602	01	1		N	M	M	M	0.1	0.3333	0.3333	170601	40151013004	EPA 300.0	241329000
03067	82	00951	171011	01	1		N	M	M	M	0.5	1.6665	1.6665	171001	40158568004	EPA 300.0	241329000
03067	82	00951	180426	01	1		N	M	M	M	0.5	1.6665	1.6665	180401	40168127004	EPA 300.0	241329000
03067	82	00951	181025	01	1	0.085	M	M	M	0.04	0.1333	0.1333	181001	AE31424	EPA 300.0	241329000	
03067	82	00951	190424	01	1	0.057	M	M	M	0.04	0.1333	0.1333	190401	AE36962	EPA 300.0	241329000	
03067	82	00951	191024	01	1	0.073	M	M	M	0.07	0.2333	0.2333	191001	AE41532	EPA 300.0	241329000	
03067	82	00951	200414	01	1	0.039	M	M	M	0.007	0.0233	0.0233	200401	AE45280	EPA 300.0	241329000	

03067	82	00951	200901	01	1	0.055	M	M	M	0.007	0.0233	0.0233	200901	AE48238	EPA 300.0	241329000	
03067	82	00951	201014	01	1	0.065	M	M	M	0.007	0.0233	0.0233	201001	AE49165	EPA 300.0	241329000	
03067	82	00951	210301	01	1	0.051	M	M	M	0.004	0.0133	0.0133	210301	AE51791	EPA 300.0	241329000	
03067	82	00951	210421	01	1		N	M	M	M	0.095	0.3166	0.3166	210401	AE52825	EPA 300.0	241329000
03067	82	00951	211026	01	1		N	M	M	M	0.095	0.3166	0.3166	211001	AE56952	EPA 300.0	241329000
03067	82	00951	220412	01	1		N	M	M	M	0.095	0.3166	0.3166	220401	AE60082	EPA 300.0	241329000
03067	82	00951	221025	01	1		N	M	M	M	0.095	0.3166	0.3166	221001	AE63598	EPA 300.0	241329000
03067	82	01002	160218	01	1	1.9	M	M	M	0.11	0.3666	0.3666	160201	40128408003	EPA 6020A	241329000	
03067	82	01002	160405	01	1	1	M	M	M	0.73	2.4331	2.4331	160401	40130257004	EPA 6020A	241329000	
03067	82	01002	160615	01	1	1.3	M	M	M	0.099	0.33	0.33	160601	40133877004	EPA 6020	241329000	
03067	82	01002	160810	01	1	2.3	M	M	M	0.099	0.33	0.33	160801	40136543004	EPA 6020	241329000	
03067	82	01002	161005	01	1	2.4	M	M	M	0.099	0.33	0.33	161001	40139741004	EPA 6020	241329000	
03067	82	01002	161221	01	1	2	M	M	M	0.099	0.33	0.33	161201	40143755005	EPA 6020	241329000	
03067	82	01002	170310	01	1	1.6	M	M	M	0.099	0.33	0.33	170301	40146662004	EPA 6020	241329000	
03067	82	01002	170602	01	1	1.6	M	M	M	0.28	0.9332	0.9332	170601	40151013004	EPA 200.8	241329000	
03067	82	01007	160218	01	1	36.8	M	M	M	0.15	0.5	0.5	160201	40128408003	EPA 6020A	241329000	
03067	82	01007	160405	01	1	23.9	M	M	M	0.057	0.19	0.19	160401	40130257004	EPA 6020A	241329000	
03067	82	01007	160615	01	1	25.7	M	M	M	0.062	0.2066	0.2066	160601	40133877004	EPA 6020	241329000	
03067	82	01007	160810	01	1	35.8	M	M	M	0.062	0.2066	0.2066	160801	40136543004	EPA 6020	241329000	
03067	82	01007	161005	01	1	56.2	M	M	M	0.062	0.2066	0.2066	161001	40139741004	EPA 6020	241329000	
03067	82	01007	161221	01	1	55.4	M	M	M	0.062	0.2066	0.2066	161201	40143755005	EPA 6020	241329000	
03067	82	01007	170310	01	1	49.5	M	M	M	0.062	0.2066	0.2066	170301	40146662004	EPA 6020	241329000	
03067	82	01007	170602	01	1	27	M	M	M	1.5	4.9995	4.9995	170601	40151013004	EPA 200.7	241329000	
03067	82	01012	160218	01	1	0.00015	M	M	M	0.	0.0001	0.0001	160201	40128408003	EPA 6020A	241329000	
03067	82	01012	160405	01	1	0.000065	M	M	M	0.	0.0001	0.0001	160401	40130257004	EPA 6020A	241329000	
03067	82	01012	160615	01	1		N	M	M	M	0.0001	0.0004	0.0004	160601	40133877004	EPA 6020	241329000
03067	82	01012	160810	01	1		N	M	M	M	0.0001	0.0004	0.0004	160801	40136543004	EPA 6020	241329000
03067	82	01012	161005	01	1		N	M	M	M	0.0001	0.0004	0.0004	161001	40139741004	EPA 6020	241329000
03067	82	01012	161221	01	1		N	M	M	M	0.0001	0.0004	0.0004	161201	40143755005	EPA 6020	241329000
03067	82	01012	170310	01	1		N	M	M	M	0.0001	0.0004	0.0004	170301	40146662004	EPA 6020	241329000
03067	82	01012	170602	01	1		N	M	M	M	0.0012	0.004	0.004	170601	40151013004	EPA 200.7	241329000
03067	82	01022	160218	01	1	0.014	M	M	M	0.0021	0.007	0.007	160201	40128408003	EPA 6020A	241329000	
03067	82	01022	160405	01	1	0.014	M	M	M	0.0004	0.0015	0.0015	160401	40130257004	EPA 6020A	241329000	
03067	82	01022	160615	01	1	0.013	M	M	M	0.002	0.0067	0.0067	160601	40133877004	EPA 6020	241329000	
03067	82	01022	160810	01	1	0.02	M	M	M	0.002	0.0067	0.0067	160801	40136543004	EPA 6020	241329000	
03067	82	01022	161005	01	1	0.03	M	M	M	0.002	0.0067	0.0067	161001	40139741004	EPA 6020	241329000	
03067	82	01022	161221	01	1	0.03	M	M	M	0.002	0.0067	0.0067	161201	40143755005	EPA 6020	241329000	
03067	82	01022	170310	01	1	0.026	M	M	M	0.002	0.0067	0.0067	170301	40146662004	EPA 6020	241329000	
03067	82	01022	170602	01	1	0.033	M	M	M	0.0067	0.0223	0.0223	170601	40151013004	EPA 200.7	241329000	
03067	82	01022	171011	01	1	0.0452	M	M	M	0.0067	0.0223	0.0223	171001	40158568004	EPA 200.7	241329000	
03067	82	01022	180426	01	1	0.0161	M	M	M	0.0067	0.0223	0.0223	180401	40168127004	EPA 200.7	241329000	
03067	82	01022	181025	01	1	0.03	M	M	M	0.0023	0.0077	0.0077	181001	AE31424	EPA 200.7	241329000	
03067	82	01022	190424	01	1	0.018	M	M	M	0.0023	0.0077	0.0077	190401	AE36962	EPA 200.7	241329000	
03067	82	01022	191024	01	1	0.026	M	M	M	0.0045	0.015	0.015	191001	AE41532	EPA 200.7	241329000	
03067	82	01022	200414	01	1	0.017	M	M	M	0.0035	0.0117	0.0117	200401	AE45280	EPA 200.7	241329000	
03067	82	01022	201014	01	1	0.0399	M	M	M	0.0173	0.0577	0.0577	201001	AE49165	EPA 200.7	241329000	
03067	82	01022	210421	01	1	0.0224	F	M	M	0.0173	0.0577	0.0577	210401	AE52825	EPA 200.7	241329000	
03067	82	01022	211026	01	1	0.0396	M	M	M	0.0173	0.0577	0.0577	211001	AE56952	EPA 200.7	241329000	
03067	82	01022	220412	01	1	0.0241	F	M	M	0.003	0.01	0.01	220401	AE60082	EPA 200.7	241329000	
03067	82	01022	221025	01	1	0.0411	M	M	M	0.0173	0.0577	0.0577	221001	AE63598	EPA 200.7	241329000	
03067	82	01027	160218	01	1		N	M	M	M	0.027	0.09	0.09	160201	40128408003	EPA 6020A	241329000
03067	82	01027	160405	01	1		N	M	M	M	0.025	0.0833	0.0833	160401	40130257004	EPA 6020A	241329000
03067	82	01027	160615	01	1		N	M	M	M	0.089	0.2966	0.2966	160601	40133877004	EPA 6020	241329000
03067	82	01027	160810	01	1		N	M	M	M	0.089	0.2966	0.2966	160801	40136543004	EPA 6020	241329000
03067	82	01027	161005	01	1		N	M	M	M	0.089	0.2966	0.2966	161001	40139741004	EPA 6020	241329000
03067	82	01027	161221	01	1		N	M	M	M	0.089	0.2966	0.2966	161201	40143755005	EPA 6020	241329000
03067	82	01027	170310	01	1		N	M	M	M	0.089	0.2966	0.2966	170301	40146662004	EPA 6020	241329000
03067	82	01027	170602	01	1		N	M	M	M	1.3	4.3329	4.3329	170601	40151013004	EPA 200.7	241329000
03067	82	01034	160218	01	1	1.9	M	M	M	0.24	0.7999	0.7999	160201	40128408003	EPA 6020A	241329000	
03067	82	01034	160405	01	1	0.49	M	M	M	0.079	0.2633	0.2633	160401	40130257004	EPA 6020A	241329000	
03067	82	01034	160615	01	1	0.48	M	M	M	0.39	1.2999	1.2999	160601	40133877004	EPA 6020	241329000	
03067	82	01034	160810	01	1	1	M	M	M	0.39	1.2999	1.2999	160801	40136543004	EPA 6020	241329000	
03067	82	01034	161005	01	1	0.51	M	M	M	0.39	1.2999	1.2999	161001	40139741004	EPA 6020	241329000	
03067	82	01034	161221	01	1	0.67	M	M	M	0.39	1.2999	1.2999	161201	40143755005	EPA 6020	241329000	
03067	82	01034	170310	01	1	0.84	M	M	M	0.39	1.2999	1.2999	170301	40146662004	EPA 6020	241329000	
03067	82	01034	170602	01	1		N	M	M	M	2.5	8.3325	8.3325	170601	40151013004	EPA 200.7	241329000
03067	82	01037	160218	01	1	12.4	M	M	M	0.052	0.1733	0.1733	160201	40128408003	EPA 6020A	241329000	
03067	82	01037	160405	01	1	9.4	M	M	M	0.051	0.17	0.17	160401	40130257004	EPA 6020A	241329000	
03067	82	01037	160615	01	1	10.2	M	M	M	0.036	0.12	0.12	160601	40133877004	EPA 6020	241329000	
03067	82	01037	160810	01	1	13.6	M	M	M	0.036	0.12	0.12	160801	40136543004	EPA 6020	241329000	
03067	82	01037	161005	01	1	15.7	M	M	M	0.036	0.12	0.12	161001	40139741004	EPA 6020	241329000	
03067	82	01037	161221	01	1	18.5	M	M	M	0.036	0.12	0.12	161201	40143755005	EPA 6020	241329000	
03067	82	01037	170310	01	1	18.3	M	M	M	0.036	0.12	0.12	170301	40146662004	EPA 6020	241329000	

03067	82	01037	170602	01	1	7.6	M	M	M	1.4	4.6662	4.6662	170601	40151013004	EPA 200.7	241329000		
03067	82	01042	221025	01	1	3.4	M	M	M	3.4	11.3322	11.3322	221001	AE63598	EPA 200.7	241329000		
03067	82	01042	230607	01	1		N	M	M	M	3.4	10.	10.	230601	230612	40263347003	EPA 200.7	405132750
03067	82	01042	230712	01	1		N	M	M	M	3.4	10.	10.	230701	230717	40265075003	EPA 200.7	405132750
03067	82	01042	230816	01	1		N	M	M	M	3.4	10.	10.	230801	230821	AE68559	EPA 200.7	241329000
03067	82	01042	230920	01	1		N	M	M	M	3.4	10.	10.	230901	230925	AE69147	EPA 200.7	241329000
03067	82	01051	160218	01	1	1.1	M	M	M	0.033	0.11	0.11	160201	40128408003	EPA 6020A	241329000		
03067	82	01051	160405	01	1	0.12	M	M	M	0.025	0.0833	0.0833	160401	40130257004	EPA 6020A	241329000		
03067	82	01051	160615	01	1	0.068	M	M	M	0.04	0.1333	0.1333	160601	40133877004	EPA 6020	241329000		
03067	82	01051	160810	01	1	0.14	M	M	M	0.04	0.1333	0.1333	160801	40136543004	EPA 6020	241329000		
03067	82	01051	161005	01	1		N	M	M	M	0.04	0.1333	0.1333	161001	40139741004	EPA 6020	241329000	
03067	82	01051	161221	01	1	0.089	M	M	M	0.04	0.1333	0.1333	161201	40143755005	EPA 6020	241329000		
03067	82	01051	170310	01	1	0.25	M	M	M	0.04	0.1333	0.1333	170301	40146662004	EPA 6020	241329000		
03067	82	01051	170602	01	1		N	M	M	M	0.2	0.6666	0.6666	170601	40151013004	EPA 200.8	241329000	
03067	82	01055	221025	01	1	1260	M	M	M	1.5	4.9995	4.9995	221001	AE63598	EPA 200.7	241329000		
03067	82	01055	230607	01	1	956	M	M	M	1.5	5.	5.	230601	230612	40263347003	EPA 200.7	405132750	
03067	82	01055	230712	01	1	1050	M	M	M	1.5	5.	5.	230701	230717	40265075003	EPA 200.7	405132750	
03067	82	01055	230816	01	1	1110	M	M	M	1.5	5.	5.	230801	230821	AE68559	EPA 200.7	241329000	
03067	82	01055	230920	01	1	1090	M	M	M	1.5	5.	5.	230901	230925	AE69147	EPA 200.7	241329000	
03067	82	01059	160218	01	1	0.024	M	M	M	0.018	0.06	0.06	160201	40128408003	EPA 6020A	241329000		
03067	82	01059	160405	01	1	0.015	M	M	M	0.012	0.04	0.04	160401	40130257004	EPA 6020A	241329000		
03067	82	01059	160615	01	1		N	M	M	M	0.14	0.4666	0.4666	160601	40133877004	EPA 6020	241329000	
03067	82	01059	160810	01	1	0.18	M	M	M	0.14	0.4666	0.4666	160801	40136543004	EPA 6020	241329000		
03067	82	01059	161005	01	1		N	M	M	M	0.14	0.4666	0.4666	161001	40139741004	EPA 6020	241329000	
03067	82	01059	161221	01	1		N	M	M	M	0.14	0.4666	0.4666	161201	40143755005	EPA 6020	241329000	
03067	82	01059	170310	01	1		N	M	M	M	0.14	0.4666	0.4666	170301	40146662004	EPA 6020	241329000	
03067	82	01059	170602	01	1		N	M	M	M	0.14	0.4666	0.4666	170601	40151013004	EPA 200.8	241329000	
03067	82	01062	160218	01	1	0.2	M	M	M	0.074	0.2466	0.2466	160201	40128408003	EPA 6020A	241329000		
03067	82	01062	160405	01	1	0.16	M	M	M	0.037	0.1233	0.1233	160401	40130257004	EPA 6020A	241329000		
03067	82	01062	160615	01	1	0.17	M	M	M	0.07	0.2333	0.2333	160601	40133877004	EPA 6020	241329000		
03067	82	01062	160810	01	1	0.24	M	M	M	0.07	0.2333	0.2333	160801	40136543004	EPA 6020	241329000		
03067	82	01062	161005	01	1	0.34	M	M	M	0.07	0.2333	0.2333	161001	40139741004	EPA 6020	241329000		
03067	82	01062	161221	01	1	0.22	M	M	M	0.07	0.2333	0.2333	161201	40143755005	EPA 6020	241329000		
03067	82	01062	170310	01	1	0.26	M	M	M	0.07	0.2333	0.2333	170301	40146662004	EPA 6020	241329000		
03067	82	01062	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601	40151013004	EPA 200.7	241329000	
03067	82	01077	221025	01	1		N	M	M	M	3.2	10.6656	10.6656	221001	AE63598	EPA 200.7	241329000	
03067	82	01077	230607	01	1		N	M	M	M	3.2	10.	10.	230601	230612	40263347003	EPA 200.7	405132750
03067	82	01077	230712	01	1		N	M	M	M	3.2	10.	10.	230701	230717	40265075003	EPA 200.7	405132750
03067	82	01077	230816	01	1		N	M	M	M	3.2	10.	10.	230801	230821	AE68559	EPA 200.7	241329000
03067	82	01077	230920	01	1		N	M	M	M	3.2	10.	10.	230901	230925	AE69147	EPA 200.7	241329000
03067	82	01092	221025	01	1		N	M	M	M	11.6	38.6628	38.6628	221001	AE63598	EPA 200.7	241329000	
03067	82	01092	230607	01	1		N	M	M	M	11.6	40.	40.	230601	230612	40263347003	EPA 200.7	405132750
03067	82	01092	230712	01	1		N	M	M	M	11.6	40.	40.	230701	230717	40265075003	EPA 200.7	405132750
03067	82	01092	230816	01	1		N	M	M	M	11.6	40.	40.	230801	230821	AE68559	EPA 200.7	241329000
03067	82	01092	230920	01	1		N	M	M	M	11.6	40.	40.	230901	230925	AE69147	EPA 200.7	241329000
03067	82	01097	160218	01	1	0.099	M	M	M	0.066	0.22	0.22	160201	40128408003	EPA 6020A	241329000		
03067	82	01097	160405	01	1		N	M	M	M	0.034	0.1133	0.1133	160401	40130257004	EPA 6020A	241329000	
03067	82	01097	160615	01	1		N	M	M	M	0.073	0.2433	0.2433	160601	40133877004	EPA 6020	241329000	
03067	82	01097	160810	01	1	0.42	M	M	M	0.073	0.2433	0.2433	160801	40136543004	EPA 6020	241329000		
03067	82	01097	161005	01	1		N	M	M	M	0.073	0.2433	0.2433	161001	40139741004	EPA 6020	241329000	
03067	82	01097	161221	01	1	0.15	M	M	M	0.073	0.2433	0.2433	161201	40143755005	EPA 6020	241329000		
03067	82	01097	170310	01	1		N	M	M	M	0.073	0.2433	0.2433	170301	40146662004	EPA 6020	241329000	
03067	82	01097	170602	01	1		N	M	M	M	0.15	0.5	0.5	170601	40151013004	EPA 200.8	241329000	
03067	82	01132	160218	01	1	0.002	M	M	M	0.0001	0.0004	0.0004	160201	40128408003	EPA 6020A	241329000		
03067	82	01132	160405	01	1	0.00054	M	M	M	0.0001	0.0002	0.0002	160401	40130257004	EPA 6020A	241329000		
03067	82	01132	160615	01	1	0.00043	M	M	M	0.0001	0.0004	0.0004	160601	40133877004	EPA 6020	241329000		
03067	82	01132	160810	01	1	0.00047	M	M	M	0.0001	0.0004	0.0004	160801	40136543004	EPA 6020	241329000		
03067	82	01132	161005	01	1	0.00045	M	M	M	0.0001	0.0004	0.0004	161001	40139741004	EPA 6020	241329000		
03067	82	01132	161221	01	1	0.0004	M	M	M	0.0001	0.0004	0.0004	161201	40143755005	EPA 6020	241329000		
03067	82	01132	170310	01	1	0.00054	M	M	M	0.0001	0.0004	0.0004	170301	40146662004	EPA 6020	241329000		
03067	82	01132	170602	01	1	0.00032	M	M	M	0.0001	0.0005	0.0005	170601	40151013004	EPA 200.8	241329000		
03067	82	01147	160218	01	1	0.72	M	M	M	0.16	0.5333	0.5333	160201	40128408003	EPA 6020A	241329000		
03067	82	01147	160405	01	1	0.15	M	M	M	0.12	0.4	0.4	160401	40130257004	EPA 6020A	241329000		
03067	82	01147	160615	01	1	0.56	M	M	M	0.21	0.6999	0.6999	160601	40133877004	EPA 6020	241329000		
03067	82	01147	160810	01	1	0.73	M	M	M	0.21	0.6999	0.6999	160801	40136543004	EPA 6020	241329000		
03067	82	01147	161005	01	1	0.7	M	M	M	0.21	0.6999	0.6999	161001	40139741004	EPA 6020	241329000		
03067	82	01147	161221	01	1	0.81	M	M	M	0.21	0.6999	0.6999	161201	40143755005	EPA 6020	241329000		
03067	82	01147	170310	01	1	0.51	M	M	M	0.21	0.6999	0.6999	170301	40146662004	EPA 6020	241329000		
03067	82	01147	170602	01	1	0.44	M	M	M	0.32	1.0666	1.0666	170601	40151013004	EPA 200.8	241329000		
03067	82	04189	160219	01	1	1186.03	M	M	M	0.	0.	0.	160201	LS-105	Calculated	241329000		
03067	82	04189	160411	01	1	1187.04	M	M	M	0.	0.	0.	160401	LS-105	Calculated	241329000		
03067	82	04189	160615	01	1	1186.75	M	M	M	0.	0.	0.	160601	LS-105	Calculated	241329000		
03067	82	04189	160803	01	1	1185.97	M	M	M	0.	0.	0.	160801	LS-105	Calculated	241329000		

03067	82	04189	161220	01	1	1186.05	M	M	M	0.	0.	0.	161201	LS-105	Calculated	241329000	
03067	82	04189	170310	01	1	1186.93	M	M	M	0.	0.	0.	170301	LS-105	Calculated	241329000	
03067	82	04189	170602	01	1	1187.63	M	M	M	0.	0.	0.	170601	LS-105	Calculated	241329000	
03067	82	04189	200901	01	1	1185.08	M	M	M	0.	0.	0.	200901	AE48238	calculated	241329000	
03067	82	04189	210301	01	1	1184.42	M	M	M	0.	0.	0.	210301	AE51791	calculated	241329000	
03067	82	11503	160218	01	1	0.342	M	M	M	1.31	4.3662	4.3662	160201	40128408003	EPA 903.1	241329000	
03067	82	11503	160405	01	1	0.366	M	M	M	1.07	3.5663	3.5663	160401	40130257004	EPA 903.1	241329000	
03067	82	11503	160615	01	1	1.345	M	M	M	0.468	1.5598	1.5598	160601	40133877004	EPA 903.1	241329000	
03067	82	11503	160810	01	1	1.1369	M	M	M	0.684	2.2798	2.2798	160801	40136543004	EPA 903.1	241329000	
03067	82	11503	161005	01	1	0.971	M	M	M	0.78	2.5997	2.5997	161001	40139741004	EPA 903.1	241329000	
03067	82	11503	161221	01	1	1.0182	M	M	M	0.807	2.6897	2.6897	161201	40143755005	EPA 903.1	241329000	
03067	82	11503	170310	01	1	0.157	M	M	M	1.21	4.0329	4.0329	170301	40146662004	Total Radium Cal	241329000	
03067	82	11503	170602	01	1	0.497	M	M	M	0.	0.	0.	170601	40151013004	Total Radium Cal	241329000	
03067	82	70300	160218	01	1	98	M	M	M	8.7	28.9971	28.9971	160201	40128408003	SM 2540C	241329000	
03067	82	70300	160405	01	1	94	M	M	M	8.7	28.9971	28.9971	160401	40130257004	SM 2540C	241329000	
03067	82	70300	160615	01	1	80	M	M	M	8.7	28.9971	28.9971	160601	40133877004	SM 2540C	241329000	
03067	82	70300	160810	01	1	148	M	M	M	8.7	28.9971	28.9971	160801	40136543004	SM 2540C	241329000	
03067	82	70300	161005	01	1	204	M	M	M	8.7	28.9971	28.9971	161001	40139741004	SM 2540C	241329000	
03067	82	70300	161221	01	1	196	M	M	M	8.7	28.9971	28.9971	161201	40143755005	SM 2540C	241329000	
03067	82	70300	170310	01	1	178	M	M	M	8.7	28.9971	28.9971	170301	40146662004	SM 2540C	241329000	
03067	82	70300	170602	01	1	96	M	M	M	8.7	28.9971	28.9971	170601	40151013004	SM 2540C	241329000	
03067	82	70300	171011	01	1	100	M	M	M	8.7	28.9971	28.9971	171001	40158568004	SM 2540C	241329000	
03067	82	70300	180426	01	1	118	M	M	M	8.7	28.9971	28.9971	180401	40168127004	SM 2540C	241329000	
03067	82	70300	181025	01	1	110	M	M	M	20.	66.66	66.66	181001	AE31424	Std Mtd 2540 C	241329000	
03067	82	70300	190424	01	1	110	M	M	M	20.	66.66	66.66	190401	AE36962	Std Mtd 2540 C	241329000	
03067	82	70300	191024	01	1	86	M	M	M	20.	66.66	66.66	191001	AE41532	Std Mtd 2540 C	241329000	
03067	82	70300	200414	01	1	62	M	M	M	20.	66.66	66.66	200401	AE45280	Std Mtd 2540 C	241329000	
03067	82	70300	201014	01	1	110	M	M	M	20.	66.66	66.66	201001	AE49165	Std Mtd 2540 C	241329000	
03067	82	70300	210421	01	1	36	M	M	M	8.7	28.9971	28.9971	210401	AE52825	Std Mtd 2540 C	241329000	
03067	82	70300	211026	01	1	132	M	M	M	8.7	28.9971	28.9971	211001	AE56952	Std Mtd 2540 C	241329000	
03067	82	70300	220412	01	1	118	M	M	M	8.7	28.9971	28.9971	220401	AE60082	Std Mtd 2540 C	241329000	
03067	82	70300	221025	01	1	160	M	M	M	8.7	28.9971	28.9971	221001	AE63598	Std Mtd 2540 C	241329000	
03067	82	70300	231030	01	1	124	M	M	M	8.7	20.	20.	231001	40270382003	SM 2540C	405132750	
03067	82	71900	160218	01	1		N	M	M	M	0.1	0.3333	0.3333	160201	40128408003	EPA 7470	241329000
03067	82	71900	160405	01	1		N	M	M	M	0.1	0.3333	0.3333	160401	40130257004	EPA 7470	241329000
03067	82	71900	160615	01	1		N	M	M	M	0.13	0.4333	0.4333	160601	40133877004	EPA 7470	241329000
03067	82	71900	160810	01	1		N	M	M	M	0.13	0.4333	0.4333	160801	40136543004	EPA 7470	241329000
03067	82	71900	161005	01	1		N	M	M	M	0.13	0.4333	0.4333	161001	40139741004	EPA 7470	241329000
03067	82	71900	161221	01	1		N	M	M	M	0.13	0.4333	0.4333	161201	40143755005	EPA 7470	241329000
03067	82	71900	170310	01	1		N	M	M	M	0.13	0.4333	0.4333	170301	40146662004	EPA 7470	241329000
03067	82	71900	170602	01	1		N	M	M	M	0.13	0.4333	0.4333	170601	40151013004	EPA 245.1	241329000
03067	84	00010	160405	01	1	4.7	M	M	M	0.1	0.3333	0.3333	160401	40130257005	FIELD	241329000	
03067	84	00010	160615	01	1	13.19	M	M	M	0.1	0.3333	0.3333	160601	40133877005	FIELD	241329000	
03067	84	00010	160810	01	1	18.23	M	M	M	0.1	0.3333	0.3333	160801	40136543005	FIELD	241329000	
03067	84	00010	161005	01	1	16.56	M	M	M	0.1	0.3333	0.3333	161001	40139741005	FIELD	241329000	
03067	84	00010	161221	01	1	9.52	M	M	M	0.1	0.3333	0.3333	161201	40143755006	FIELD	241329000	
03067	84	00010	170310	01	1	4.48	M	M	M	0.1	0.3333	0.3333	170301	40146662005	FIELD	241329000	
03067	84	00010	170602	01	1	11.1	M	M	M	0.1	0.3333	0.3333	170601	40151013005	FIELD	241329000	
03067	84	00010	180426	01	1	5	M	M	M	0.1	0.3333	0.3333	180401	40168127005	FIELD	241329000	
03067	84	00010	181025	01	1	13.8	M	M	M	0.1	0.3333	0.3333	181001	AE31425	TEMP	241329000	
03067	84	00010	181025	01	1	13.8	M	M	M	0.1	0.3333	0.3333	181001	AE31428	TEMP	241329000	
03067	84	00010	190424	01	1	5.2	M	M	M	0.1	0.3333	0.3333	190401	AE36963	TEMP	241329000	
03067	84	00010	190424	01	1	5.2	M	M	M	0.1	0.3333	0.3333	190401	AE36966	TEMP	241329000	
03067	84	00010	190913	01	1	16.2	M	M	M	0.1	0.3333	0.3333	190901	AE40532	TEMP	241329000	
03067	84	00010	191024	01	1	14	M	M	M	0.1	0.3333	0.3333	191001	AE41533	TEMP	241329000	
03067	84	00010	200302	01	1	4.6	M	M	M	0.1	0.3333	0.3333	200301	AE44199	TEMP	241329000	
03067	84	00010	200414	01	1	5.1	M	M	M	0.1	0.3333	0.3333	200401	AE45281	TEMP	241329000	
03067	84	00010	200901	01	1	16.5	M	M	M	0.1	0.3333	0.3333	200901	AE48242	TEMP	241329000	
03067	84	00010	201014	01	1	14.8	M	M	M	0.1	0.3333	0.3333	201001	AE49166	TEMP	241329000	
03067	84	00010	210301	01	1	6.1	M	M	M	0.1	0.3333	0.3333	210301	AE51792	TEMP	241329000	
03067	84	00010	210421	01	1	6.1	M	M	M	0.1	0.3333	0.3333	210401	AE52826	TEMP	241329000	
03067	84	00010	211026	01	1	14.8	M	M	M	0.1	0.3333	0.3333	211001	AE56953	TEMP	241329000	
03067	84	00010	220412	01	1	5.4	M	M	M	0.1	0.3333	0.3333	220401	AE60087	TEMP	241329000	
03067	84	00010	221025	01	1	13	M	M	M	0.1	0.3333	0.3333	221001	AE63599	TEMP	241329000	
03067	84	00010	230607	01	1	9.2	M	M	M	0.1	0.3333	0.3333	230601	40263347004	TEMP	241329000	
03067	84	00010	230712	01	1	11.1	M	M	M	0.1	0.1	0.1	230701	40265075004	TEMP	241329000	
03067	84	00010	230816	01	1	13.5	M	M	M	0.1	0.3333	0.3333	230801	230816	AE68560	TEMP	241329000
03067	84	00010	230920	01	1	14	M	M	M	0.1	0.3333	0.3333	230901	230920	AE69148	TEMP	241329000
03067	84	00094	160405	01	1	80	M	M	M	0.	0.	0.	160401	40130257005	FIELD	241329000	
03067	84	00094	160615	01	1	99	M	M	M	0.	0.	0.	160601	40133877005	FIELD	241329000	
03067	84	00094	160810	01	1	116	M	M	M	0.	0.	0.	160801	40136543005	FIELD	241329000	
03067	84	00094	161005	01	1	100	M	M	M	0.	0.	0.	161001	40139741005	FIELD	241329000	
03067	84	00094	161221	01	1	120	M	M	M	0.	0.	0.	161201	40143755006	FIELD	241329000	

03067	84	00094	170310	01	1	110	M	M	M	0.	0.	0.	170301	40146662005	FIELD	241329000		
03067	84	00094	170602	01	1	136	M	M	M	0.	0.	0.	170601	40151013005	FIELD	241329000		
03067	84	00094	180426	01	1	0.077	M	M	M	0.	0.	0.	180401	40168127005	FIELD	241329000		
03067	84	00094	181025	01	1	81	M	M	M	0.	0.	0.	181001	AE31425	FCOND25	241329000		
03067	84	00094	181025	01	1	82	M	M	M	0.	0.	0.	181001	AE31428	FCOND25	241329000		
03067	84	00094	190424	01	1	107	M	M	M	0.	0.	0.	190401	AE36963	FCOND25	241329000		
03067	84	00094	190424	01	1	107	M	M	M	0.	0.	0.	190401	AE36966	FCOND25	241329000		
03067	84	00094	190913	01	1	146.2	M	M	M	0.	0.	0.	190901	AE40532	FCOND25	241329000		
03067	84	00094	191024	01	1	131	M	M	M	0.	0.	0.	191001	AE41533	FCOND25	241329000		
03067	84	00094	200302	01	1	143	M	M	M	0.	0.	0.	200301	AE44200	FCOND25	241329000		
03067	84	00094	200414	01	1	67	M	M	M	0.	0.	0.	200401	AE45281	FCOND25	241329000		
03067	84	00094	200901	01	1	151	M	M	M	0.	0.	0.	200901	AE48239	FCOND25	241329000		
03067	84	00094	201014	01	1	151	M	M	M	0.	0.	0.	201001	AE49166	FCOND25	241329000		
03067	84	00094	210301	01	1	196	M	M	M	0.	0.	0.	210301	AE51792	FCOND25	241329000		
03067	84	00094	210421	01	1	49	M	M	M	0.	0.	0.	210401	AE52826	FCOND25	241329000		
03067	84	00094	211026	01	1	116	M	M	M	0.	0.	0.	211001	AE56953	FCOND25	241329000		
03067	84	00094	220412	01	1	48	M	M	M	0.	0.	0.	220401	AE60087	FCOND25	241329000		
03067	84	00094	221025	01	1	160	M	M	M	0.	0.	0.	221001	AE63599	FCOND25	241329000		
03067	84	00094	230607	01	1	51	M	M	M	0.	0.	0.	230601	230607	40263347004	FCOND25	241329000	
03067	84	00094	230712	01	1	97	M	M	M	0.	0.	0.	230701	230712	40265075004	FCOND25	241329000	
03067	84	00094	230816	01	1	165	M	M	M	0.	0.	0.	230801	230816	AE68560	FCOND25	241329000	
03067	84	00094	230920	01	1	200	M	M	M	0.	0.	0.	230901	230920	AE69148	FCOND25	241329000	
03067	84	00400	160405	01	1	6.7	M	M	M	0.1	0.3333	0.3333	160401	40130257005	FIELD	241329000		
03067	84	00400	160615	01	1	6.52	M	M	M	0.1	0.3333	0.3333	160601	40133877005	FIELD	241329000		
03067	84	00400	160810	01	1	6.64	M	M	M	0.1	0.3333	0.3333	160801	40136543005	FIELD	241329000		
03067	84	00400	161005	01	1	7.02	M	M	M	0.1	0.3333	0.3333	161001	40139741005	FIELD	241329000		
03067	84	00400	161221	01	1	7.5	M	M	M	0.1	0.3333	0.3333	161201	40143755006	FIELD	241329000		
03067	84	00400	170310	01	1	8.08	M	M	M	0.1	0.3333	0.3333	170301	40146662005	FIELD	241329000		
03067	84	00400	170602	01	1	7.95	M	M	M	0.1	0.3333	0.3333	170601	40151013005	FIELD	241329000		
03067	84	00400	171011	01	1	6.58	M	M	M	0.1	0.3333	0.3333	171001	40158568005	FIELD	241329000		
03067	84	00400	180426	01	1	7.51	M	M	M	0.1	0.3333	0.3333	180401	40168127005	FIELD	241329000		
03067	84	00400	181025	01	1	6.4	M	M	M	0.1	0.3333	0.3333	181001	AE31425	FieldPH	241329000		
03067	84	00400	181025	01	1	6.4	M	M	M	0.1	0.3333	0.3333	181001	AE31428	FieldPH	241329000		
03067	84	00400	190424	01	1	6.06	M	M	M	0.1	0.3333	0.3333	190401	AE36963	FieldPH	241329000		
03067	84	00400	190424	01	1	6.06	M	M	M	0.1	0.3333	0.3333	190401	AE36966	FieldPH	241329000		
03067	84	00400	190913	01	1	5.96	M	M	M	0.1	0.3333	0.3333	190901	AE40532	FieldPH	241329000		
03067	84	00400	191024	01	1	5.6	M	M	M	0.1	0.3333	0.3333	191001	AE41533	FieldPH	241329000		
03067	84	00400	200302	01	1	6.37	M	M	M	0.1	0.3333	0.3333	200301	AE44199	FieldPH	241329000		
03067	84	00400	200414	01	1	6.43	M	M	M	0.1	0.3333	0.3333	200401	AE45281	FieldPH	241329000		
03067	84	00400	200901	01	1	6.21	M	M	M	0.1	0.3333	0.3333	200901	AE48239	FieldPH	241329000		
03067	84	00400	201014	01	1	5.94	M	M	M	0.1	0.3333	0.3333	201001	AE49166	FieldPH	241329000		
03067	84	00400	210301	01	1	6.5	M	M	M	0.1	0.3333	0.3333	210301	AE51792	FieldPH	241329000		
03067	84	00400	210421	01	1	6.2	M	M	M	0.1	0.3333	0.3333	210401	AE52826	FieldPH	241329000		
03067	84	00400	211026	01	1	5.9	M	M	M	0.1	0.3333	0.3333	211001	AE56953	FieldPH	241329000		
03067	84	00400	220412	01	1	5.73	M	M	M	0.1	0.3333	0.3333	220401	AE60083	FieldPH	241329000		
03067	84	00400	220412	01	1	5.73	M	M	M	0.1	0.3333	0.3333	220401	AE60087	FieldPH	241329000		
03067	84	00400	221025	01	1	5.6	M	M	M	0.1	0.3333	0.3333	221001	AE63599	FieldPH	241329000		
03067	84	00400	230607	01	1	5.33	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347004	FIELDPH	241329000	
03067	84	00400	230712	01	1	6.06	M	M	M	0.1	0.1	0.1	230701	230712	40265075004	FIELDPH	241329000	
03067	84	00400	230816	01	1	6.1	M	M	M	0.1	0.1	0.1	230801	230816	AE68560	FieldPH	241329000	
03067	84	00400	230920	01	1	6.1	M	M	M	0.1	0.1	0.1	230901	230920	AE69148	FieldPH	241329000	
03067	84	00410	170602	01	1	31.6	M	M	M	5.	16.665	16.665	170601	40151013005	SM 2320B	241329000		
03067	84	00410	191024	01	1	35	M	M	M	5.	16.665	16.665	191001	AE41540	Std Mtd 2320B	241329000		
03067	84	00410	201014	01	1	61	M	M	M	5.	16.665	16.665	201001	AE49166	Std Mtd 2320B	241329000		
03067	84	00410	211026	01	1	49.4	M	M	M	5.	16.665	16.665	211001	AE56953	Std Mtd 2320B	241329000		
03067	84	00410	220412	01	1		N	M	M	M	5.2	17.3316	17.3316	220401	AE60083	Std Mtd 2320B	241329000	
03067	84	00410	220412	01	1	16.7	M	M	M	5.2	17.3316	17.3316	220401	AE60087	Std Mtd 2320B	241329000		
03067	84	00410	221025	01	1	75.5	M	M	M	5.	16.665	16.665	221001	AE63599	Std Mtd 2320B	241329000		
03067	84	00630	221025	01	1		N	M	M	M	0.065	0.2166	0.2166	221001	AE63599	EPA 300.0	241329000	
03067	84	00630	230607	01	1	0.59	M	M	M	0.059	0.25	0.25	230601	230619	40263347004	EPA 353.2	405132750	
03067	84	00630	230712	01	1		N	M	M	M	0.059	0.25	0.25	230701	230725	40265075004	EPA 353.2	405132750
03067	84	00630	230816	01	1		N	M	M	M	0.059	0.25	0.25	230801	230829	AE68560	EPA 353.2	405132750
03067	84	00630	230920	01	1		N	M	M	M	0.065	0.25	0.25	230901	230922	AE69148	EPA 353.2	405132750
03067	84	00900	230607	01	1	23.2	M	M	M	1.	5.4	5.4	230601	230612	40263347004	EPA 200.7	405132750	
03067	84	00900	230712	01	1	46.2	M	M	M	1.	5.4	5.4	230701	230717	40265075004	EPA 200.7	405132750	
03067	84	00900	230816	01	1	77.9	M	M	M	1.	5.4	5.4	230801	230821	AE68560	Std Mtd 2340B	241329000	
03067	84	00900	230920	01	1	90.9	M	M	M	1.	5.4	5.4	230901	230925	AE69148	Std Mtd 2340B	241329000	
03067	84	00916	160218	01	1	9.2	M	M	M	0.019	0.0633	0.0633	160201	40128408004	EPA 6020A	241329000		
03067	84	00916	160405	01	1	7.7	M	M	M	0.01	0.0333	0.0333	160401	40130257005	EPA 6020A	241329000		
03067	84	00916	160615	01	1	7.6	M	M	M	0.074	0.2466	0.2466	160601	40133877005	EPA 6020	241329000		
03067	84	00916	160810	01	1	10.1	M	M	M	0.074	0.2466	0.2466	160801	40136543005	EPA 6020	241329000		
03067	84	00916	161005	01	1	10.7	M	M	M	0.15	0.5	0.5	161001	40139741005	EPA 6020	241329000		
03067	84	00916	161221	01	1	12.3	M	M	M	0.074	0.2466	0.2466	161201	40143755006	EPA 6020	241329000		

03067	84	00916	170310	01	1	9.9	M	M	M	0.37	1.2332	1.2332	170301	40146662005	EPA 6020	241329000	
03067	84	00916	170602	01	1	9.4	M	M	M	0.0977	0.3256	0.3256	170601	40151013005	EPA 200.7	241329000	
03067	84	00916	171011	01	1	15.5	M	M	M	0.0977	0.3256	0.3256	171001	40158568005	EPA 200.7	241329000	
03067	84	00916	180426	01	1	6.16	M	M	M	0.0977	0.3256	0.3256	180401	40168127005	EPA 200.7	241329000	
03067	84	00916	181025	01	1	6	M	M	M	0.017	0.0567	0.0567	181001	AE31425	EPA 200.7	241329000	
03067	84	00916	190424	01	1	6.6	M	M	M	0.017	0.0567	0.0567	190401	AE36963	EPA 200.7	241329000	
03067	84	00916	191024	01	1	2.2	M	M	M	0.027	0.09	0.09	191001	AE41533	EPA 200.7	241329000	
03067	84	00916	200302	01	1	14	M	M	M	0.043	0.1433	0.1433	200301	AE44199	EPA 200.7	241329000	
03067	84	00916	200414	01	1	4.8	M	M	M	0.043	0.1433	0.1433	200401	AE45281	EPA 200.7	241329000	
03067	84	00916	201014	01	1	15.3	M	M	M	0.114	0.38	0.38	201001	AE49166	EPA 200.7	241329000	
03067	84	00916	210421	01	1	4.31	M	M	M	0.114	0.38	0.38	210401	AE52826	EPA 200.7	241329000	
03067	84	00916	211026	01	1	12.5	M	M	M	0.114	0.38	0.38	211001	AE56953	EPA 200.7	241329000	
03067	84	00916	220412	01	1	4.24	M	M	M	0.0762	0.254	0.254	220401	AE60083	EPA 200.7	241329000	
03067	84	00916	221025	01	1	17	M	M	M	0.114	0.38	0.38	221001	AE63599	EPA 200.7	241329000	
03067	84	00916	230607	01	1	5.68	M	M	M	0.114	0.5	0.5	230601	230612	40263347004	EPA 200.7	405132750
03067	84	00916	230712	01	1	12.2	M	M	M	0.114	0.5	0.5	230701	230717	40265075004	EPA 200.7	405132750
03067	84	00916	230816	01	1	18.9	M	M	M	0.114	0.5	0.5	230801	230821	AE68560	EPA 200.7	241329000
03067	84	00916	230920	01	1	21.8	M	M	M	0.114	0.5	0.5	230901	230925	AE69148	EPA 200.7	241329000
03067	84	00940	160218	01	1	4.2	M	M	M	2.	6.666	6.666	160201	40128408004	EPA 300.0	241329000	
03067	84	00940	160405	01	1	3.2	M	M	M	2.	6.666	6.666	160401	40130257005	EPA 300.0	241329000	
03067	84	00940	160615	01	1	3.2	M	M	M	2.	6.666	6.666	160601	40133877005	EPA 300.0	241329000	
03067	84	00940	160810	01	1		N	M	M	M	10.	33.33	33.33	160801	40136543005	EPA 300.0	241329000
03067	84	00940	161005	01	1	2.8	M	M	M	2.5	8.3325	8.3325	161001	40139741005	EPA 300.0	241329000	
03067	84	00940	161221	01	1		N	M	M	M	2.5	8.3325	8.3325	161201	40143755006	EPA 300.0	241329000
03067	84	00940	170310	01	1		N	M	M	M	2.5	8.3325	8.3325	170301	40146662005	EPA 300.0	241329000
03067	84	00940	170602	01	1	4.1	M	M	M	2.5	8.3325	8.3325	170601	40151013005	EPA 300.0	241329000	
03067	84	00940	171011	01	1	3.6	M	M	M	2.5	8.3325	8.3325	171001	40158568005	EPA 300.0	241329000	
03067	84	00940	180426	01	1		N	M	M	M	2.5	8.3325	8.3325	180401	40168127005	EPA 300.0	241329000
03067	84	00940	181025	01	1	0.47	M	M	M	0.21	0.6999	0.6999	181001	AE31425	EPA 300.0	241329000	
03067	84	00940	190424	01	1	8.4	M	M	M	0.21	0.6999	0.6999	190401	AE36963	EPA 300.0	241329000	
03067	84	00940	190913	01	1	11	M	M	M	0.18	0.5999	0.5999	190901	AE40532	EPA 300.0	241329000	
03067	84	00940	191024	01	1	8.4	M	M	M	0.18	0.5999	0.5999	191001	AE41533	EPA 300.0	241329000	
03067	84	00940	200414	01	1	1.3	M	M	M	0.002	0.0067	0.0067	200401	AE45281	EPA 300.0	241329000	
03067	84	00940	201014	01	1	1.3	M	M	M	0.002	0.0067	0.0067	201001	AE49166	EPA 300.0	241329000	
03067	84	00940	210421	01	1	2.3	M	M	M	2.2	7.3326	7.3326	210401	AE52826	EPA 300.0	241329000	
03067	84	00940	211026	01	1	2.4	M	M	M	0.43	1.4332	1.4332	211001	AE56953	EPA 300.0	241329000	
03067	84	00940	220412	01	1	0.99	M	M	M	0.43	1.4332	1.4332	220401	AE60083	EPA 300.0	241329000	
03067	84	00940	221025	01	1	2.5	M	M	M	0.43	1.4332	1.4332	221001	AE63599	EPA 300.0	241329000	
03067	84	00945	160218	01	1	6.7	M	M	M	2.	6.666	6.666	160201	40128408004	EPA 300.0	241329000	
03067	84	00945	160405	01	1	6.6	M	M	M	2.	6.666	6.666	160401	40130257005	EPA 300.0	241329000	
03067	84	00945	160615	01	1	5.5	M	M	M	2.	6.666	6.666	160601	40133877005	EPA 300.0	241329000	
03067	84	00945	160810	01	1		N	M	M	M	10.	33.33	33.33	160801	40136543005	EPA 300.0	241329000
03067	84	00945	161005	01	1		N	M	M	M	5.	16.665	16.665	161001	40139741005	EPA 300.0	241329000
03067	84	00945	161221	01	1	5.7	M	M	M	5.	16.665	16.665	161201	40143755006	EPA 300.0	241329000	
03067	84	00945	170310	01	1	5.2	M	M	M	5.	16.665	16.665	170301	40146662005	EPA 300.0	241329000	
03067	84	00945	170602	01	1	11.8	M	M	M	5.	16.665	16.665	170601	40151013005	EPA 300.0	241329000	
03067	84	00945	171011	01	1	11.4	M	M	M	5.	16.665	16.665	171001	40158568005	EPA 300.0	241329000	
03067	84	00945	180426	01	1		N	M	M	M	5.	16.665	16.665	180401	40168127005	EPA 300.0	241329000
03067	84	00945	181025	01	1	3.2	M	M	M	0.11	0.3666	0.3666	181001	AE31425	EPA 300.0	241329000	
03067	84	00945	190424	01	1	6.3	M	M	M	0.11	0.3666	0.3666	190401	AE36963	EPA 300.0	241329000	
03067	84	00945	191024	01	1	6.5	M	M	M	0.14	0.4666	0.4666	191001	AE41533	EPA 300.0	241329000	
03067	84	00945	200414	01	1	4.3	M	M	M	0.031	0.1033	0.1033	200401	AE45281	EPA 300.0	241329000	
03067	84	00945	201014	01	1	3.1	M	M	M	0.031	0.1033	0.1033	201001	AE49166	EPA 300.0	241329000	
03067	84	00945	210421	01	1	3	M	M	M	2.2	7.3326	7.3326	210401	AE52826	EPA 300.0	241329000	
03067	84	00945	211026	01	1	4.8	M	M	M	0.44	1.4665	1.4665	211001	AE56953	EPA 300.0	241329000	
03067	84	00945	220412	01	1	2.1	M	M	M	0.44	1.4665	1.4665	220401	AE60083	EPA 300.0	241329000	
03067	84	00945	221025	01	1	2.2	M	M	M	0.44	1.4665	1.4665	221001	AE63599	EPA 300.0	241329000	
03067	84	00951	160218	01	1		N	M	M	M	0.2	0.6666	0.6666	160201	40128408004	EPA 300.0	241329000
03067	84	00951	160405	01	1		N	M	M	M	0.2	0.6666	0.6666	160401	40130257005	EPA 300.0	241329000
03067	84	00951	160615	01	1		N	M	M	M	0.2	0.6666	0.6666	160601	40133877005	EPA 300.0	241329000
03067	84	00951	160810	01	1		N	M	M	M	1.	3.333	3.333	160801	40136543005	EPA 300.0	241329000
03067	84	00951	161005	01	1		N	M	M	M	0.5	1.6665	1.6665	161001	40139741005	EPA 300.0	241329000
03067	84	00951	161221	01	1		N	M	M	M	0.5	1.6665	1.6665	161201	40143755006	EPA 300.0	241329000
03067	84	00951	170310	01	1		N	M	M	M	0.5	1.6665	1.6665	170301	40146662005	EPA 300.0	241329000
03067	84	00951	170602	01	1		N	M	M	M	0.5	1.6665	1.6665	170601	40151013005	EPA 300.0	241329000
03067	84	00951	171011	01	1		N	M	M	M	0.5	1.6665	1.6665	171001	40158568005	EPA 300.0	241329000
03067	84	00951	180426	01	1		N	M	M	M	0.5	1.6665	1.6665	180401	40168127005	EPA 300.0	241329000
03067	84	00951	181025	01	1	0.066	M	M	M	0.04	0.1333	0.1333	181001	AE31425	EPA 300.0	241329000	
03067	84	00951	190424	01	1	0.053	M	M	M	0.04	0.1333	0.1333	190401	AE36963	EPA 300.0	241329000	
03067	84	00951	191024	01	1		N	M	M	M	0.07	0.2333	0.2333	191001	AE41533	EPA 300.0	241329000
03067	84	00951	200414	01	1	0.049	M	M	M	0.007	0.0233	0.0233	200401	AE45281	EPA 300.0	241329000	
03067	84	00951	200901	01	1	0.035	M	M	M	0.007	0.0233	0.0233	200901	AE48239	EPA 300.0	241329000	
03067	84	00951	201014	01	1	0.12	M	M	M	0.007	0.0233	0.0233	201001	AE49166	EPA 300.0	241329000	

03067	84	00951	210301	01	1	0.057	M	M	M	0.004	0.0133	0.0133	210301	AE51792	EPA 300.0	241329000	
03067	84	00951	210421	01	1		N	M	M	M	0.48	1.5998	1.5998	210401	AE52826	EPA 300.0	241329000
03067	84	00951	211026	01	1		N	M	M	M	0.095	0.3166	0.3166	211001	AE56953	EPA 300.0	241329000
03067	84	00951	220412	01	1		N	M	M	M	0.095	0.3166	0.3166	220401	AE60083	EPA 300.0	241329000
03067	84	00951	221025	01	1		N	M	M	M	0.095	0.3166	0.3166	221001	AE63599	EPA 300.0	241329000
03067	84	01002	160218	01	1	1.5	M	M	M	0.11	0.3666	0.3666	160201	40128408004	EPA 6020A	241329000	
03067	84	01002	160405	01	1	2.6	M	M	M	0.73	2.4331	2.4331	160401	40130257005	EPA 6020A	241329000	
03067	84	01002	160615	01	1	2	M	M	M	0.099	0.33	0.33	160601	40133877005	EPA 6020	241329000	
03067	84	01002	160810	01	1	1.6	M	M	M	0.099	0.33	0.33	160801	40136543005	EPA 6020	241329000	
03067	84	01002	161005	01	1	6.4	M	M	M	0.2	0.6666	0.6666	161001	40139741005	EPA 6020	241329000	
03067	84	01002	161221	01	1	2.2	M	M	M	0.099	0.33	0.33	161201	40143755006	EPA 6020	241329000	
03067	84	01002	170310	01	1	5.9	M	M	M	0.5	1.6665	1.6665	170301	40146662005	EPA 6020	241329000	
03067	84	01002	170602	01	1	3	M	M	M	0.28	0.9332	0.9332	170601	40151013005	EPA 200.8	241329000	
03067	84	01007	160218	01	1	61.2	M	M	M	0.15	0.5	0.5	160201	40128408004	EPA 6020A	241329000	
03067	84	01007	160405	01	1	84.8	M	M	M	0.057	0.19	0.19	160401	40130257005	EPA 6020A	241329000	
03067	84	01007	160615	01	1	55.4	M	M	M	0.062	0.2066	0.2066	160601	40133877005	EPA 6020	241329000	
03067	84	01007	160810	01	1	54.8	M	M	M	0.062	0.2066	0.2066	160801	40136543005	EPA 6020	241329000	
03067	84	01007	161005	01	1	198	M	M	M	0.12	0.4	0.4	161001	40139741005	EPA 6020	241329000	
03067	84	01007	161221	01	1	90	M	M	M	0.062	0.2066	0.2066	161201	40143755006	EPA 6020	241329000	
03067	84	01007	170310	01	1	179	M	M	M	0.31	1.0332	1.0332	170301	40146662005	EPA 6020	241329000	
03067	84	01007	170602	01	1	63.5	M	M	M	1.5	4.9995	4.9995	170601	40151013005	EPA 200.7	241329000	
03067	84	01012	160218	01	1	0.00031	M	M	M	0.	0.0001	0.0001	160201	40128408004	EPA 6020A	241329000	
03067	84	01012	160405	01	1	0.00074	M	M	M	0.	0.0001	0.0001	160401	40130257005	EPA 6020A	241329000	
03067	84	01012	160615	01	1	0.00032	M	M	M	0.0001	0.0004	0.0004	160601	40133877005	EPA 6020	241329000	
03067	84	01012	160810	01	1	0.00017	M	M	M	0.0001	0.0004	0.0004	160801	40136543005	EPA 6020	241329000	
03067	84	01012	161005	01	1	0.0021	M	M	M	0.0003	0.0008	0.0008	161001	40139741005	EPA 6020	241329000	
03067	84	01012	161221	01	1	0.00074	M	M	M	0.0001	0.0004	0.0004	161201	40143755006	EPA 6020	241329000	
03067	84	01012	170310	01	1	0.0024	M	M	M	0.0006	0.0021	0.0021	170301	40146662005	EPA 6020	241329000	
03067	84	01012	170602	01	1		N	M	M	M	0.0012	0.004	0.004	170601	40151013005	EPA 200.7	241329000
03067	84	01022	160218	01	1	0.015	M	M	M	0.0021	0.007	0.007	160201	40128408004	EPA 6020A	241329000	
03067	84	01022	160405	01	1	0.089	M	M	M	0.0004	0.0015	0.0015	160401	40130257005	EPA 6020A	241329000	
03067	84	01022	160615	01	1	0.054	M	M	M	0.002	0.0067	0.0067	160601	40133877005	EPA 6020	241329000	
03067	84	01022	160810	01	1	0.063	M	M	M	0.002	0.0067	0.0067	160801	40136543005	EPA 6020	241329000	
03067	84	01022	161005	01	1	0.36	M	M	M	0.004	0.0133	0.0133	161001	40139741005	EPA 6020	241329000	
03067	84	01022	161221	01	1	0.12	M	M	M	0.002	0.0067	0.0067	161201	40143755006	EPA 6020	241329000	
03067	84	01022	170310	01	1	0.45	M	M	M	0.01	0.0333	0.0333	170301	40146662005	EPA 6020	241329000	
03067	84	01022	170602	01	1	0.091	M	M	M	0.0067	0.0223	0.0223	170601	40151013005	EPA 200.7	241329000	
03067	84	01022	171011	01	1	0.106	M	M	M	0.0067	0.0223	0.0223	171001	40158568005	EPA 200.7	241329000	
03067	84	01022	180426	01	1	0.0544	M	M	M	0.0067	0.0223	0.0223	180401	40168127005	EPA 200.7	241329000	
03067	84	01022	181025	01	1	0.054	M	M	M	0.0023	0.0077	0.0077	181001	AE31425	EPA 200.7	241329000	
03067	84	01022	190424	01	1	0.025	M	M	M	0.0023	0.0077	0.0077	190401	AE36963	EPA 200.7	241329000	
03067	84	01022	191024	01	1	0.26	M	M	M	0.0045	0.015	0.015	191001	AE41533	EPA 200.7	241329000	
03067	84	01022	200302	01	1	0.079	M	M	M	0.0035	0.0117	0.0117	200301	AE44199	EPA 200.7	241329000	
03067	84	01022	200414	01	1	0.069	M	M	M	0.0035	0.0117	0.0117	200401	AE45281	EPA 200.7	241329000	
03067	84	01022	201014	01	1	0.185	M	M	M	0.0173	0.0577	0.0577	201001	AE49166	EPA 200.7	241329000	
03067	84	01022	210421	01	1	0.0594	F	M	M	0.0173	0.0577	0.0577	210401	AE52826	EPA 200.7	241329000	
03067	84	01022	211026	01	1	0.0226	M	M	M	0.0173	0.0577	0.0577	211001	AE56953	EPA 200.7	241329000	
03067	84	01022	220412	01	1	0.037	F	M	M	0.003	0.01	0.01	220401	AE60083	EPA 200.7	241329000	
03067	84	01022	221025	01	1	0.0242	M	M	M	0.0173	0.0577	0.0577	221001	AE63599	EPA 200.7	241329000	
03067	84	01027	160218	01	1		N	M	M	M	0.027	0.09	0.09	160201	40128408004	EPA 6020A	241329000
03067	84	01027	160405	01	1	0.049	M	M	M	0.025	0.0833	0.0833	160401	40130257005	EPA 6020A	241329000	
03067	84	01027	160615	01	1		N	M	M	M	0.089	0.2966	0.2966	160601	40133877005	EPA 6020	241329000
03067	84	01027	160810	01	1		N	M	M	M	0.089	0.2966	0.2966	160801	40136543005	EPA 6020	241329000
03067	84	01027	161005	01	1		N	M	M	M	0.18	0.5999	0.5999	161001	40139741005	EPA 6020	241329000
03067	84	01027	161221	01	1		N	M	M	M	0.089	0.2966	0.2966	161201	40143755006	EPA 6020	241329000
03067	84	01027	170310	01	1		N	M	M	M	0.44	1.4665	1.4665	170301	40146662005	EPA 6020	241329000
03067	84	01027	170602	01	1		N	M	M	M	1.3	4.3329	4.3329	170601	40151013005	EPA 200.7	241329000
03067	84	01034	160218	01	1	6.6	M	M	M	0.24	0.7999	0.7999	160201	40128408004	EPA 6020A	241329000	
03067	84	01034	160405	01	1	23.4	M	M	M	0.079	0.2633	0.2633	160401	40130257005	EPA 6020A	241329000	
03067	84	01034	160615	01	1	9.2	M	M	M	0.39	1.2999	1.2999	160601	40133877005	EPA 6020	241329000	
03067	84	01034	160810	01	1	6.3	M	M	M	0.39	1.2999	1.2999	160801	40136543005	EPA 6020	241329000	
03067	84	01034	161005	01	1	58.1	M	M	M	0.79	2.6331	2.6331	161001	40139741005	EPA 6020	241329000	
03067	84	01034	161221	01	1	18.5	M	M	M	0.39	1.2999	1.2999	161201	40143755006	EPA 6020	241329000	
03067	84	01034	170310	01	1	63.2	M	M	M	2.	6.666	6.666	170301	40146662005	EPA 6020	241329000	
03067	84	01034	170602	01	1	10.9	M	M	M	2.5	8.3325	8.3325	170601	40151013005	EPA 200.7	241329000	
03067	84	01037	160218	01	1	5.6	M	M	M	0.052	0.1733	0.1733	160201	40128408004	EPA 6020A	241329000	
03067	84	01037	160405	01	1	9.4	M	M	M	0.051	0.17	0.17	160401	40130257005	EPA 6020A	241329000	
03067	84	01037	160615	01	1	8.5	M	M	M	0.036	0.12	0.12	160601	40133877005	EPA 6020	241329000	
03067	84	01037	160810	01	1	6	M	M	M	0.036	0.12	0.12	160801	40136543005	EPA 6020	241329000	
03067	84	01037	161005	01	1	16.4	M	M	M	0.073	0.2433	0.2433	161001	40139741005	EPA 6020	241329000	
03067	84	01037	161221	01	1	9.3	M	M	M	0.036	0.12	0.12	161201	40143755006	EPA 6020	241329000	
03067	84	01037	170310	01	1	18.4	M	M	M	0.18	0.5999	0.5999	170301	40146662005	EPA 6020	241329000	
03067	84	01037	170602	01	1	7.2	M	M	M	1.4	4.6662	4.6662	170601	40151013005	EPA 200.7	241329000	

03067	84	01042	221025	01	1	6.8	M	M	M	3.4	11.3322	11.3322	221001		AE63599	EPA 200.7	241329000	
03067	84	01042	230607	01	1		N	M	M	M	3.4	10.	10.	230601	230612	40263347004	EPA 200.7	405132750
03067	84	01042	230712	01	1		N	M	M	M	3.4	10.	10.	230701	230717	40265075004	EPA 200.7	405132750
03067	84	01042	230816	01	1	3.6	J	M	M	M	3.4	10.	10.	230801	230821	AE68560	EPA 200.7	241329000
03067	84	01042	230920	01	1		N	M	M	M	3.4	10.	10.	230901	230925	AE69148	EPA 200.7	241329000
03067	84	01051	160218	01	1	2.1	M	M	M	0.033	0.11	0.11	160201		40128408004	EPA 6020A	241329000	
03067	84	01051	160405	01	1	3.5	M	M	M	0.025	0.0833	0.0833	160401		40130257005	EPA 6020A	241329000	
03067	84	01051	160615	01	1	1.2	M	M	M	0.04	0.1333	0.1333	160601		40133877005	EPA 6020	241329000	
03067	84	01051	160810	01	1	0.53	M	M	M	0.04	0.1333	0.1333	160801		40136543005	EPA 6020	241329000	
03067	84	01051	161005	01	1	5.4	M	M	M	0.081	0.27	0.27	161001		40139741005	EPA 6020	241329000	
03067	84	01051	161221	01	1	1.6	M	M	M	0.04	0.1333	0.1333	161201		40143755006	EPA 6020	241329000	
03067	84	01051	170310	01	1	5.4	M	M	M	0.2	0.6666	0.6666	170301		40146662005	EPA 6020	241329000	
03067	84	01051	170602	01	1	1.2	M	M	M	0.2	0.6666	0.6666	170601		40151013005	EPA 200.8	241329000	
03067	84	01055	221025	01	1	1350	M	M	M	1.5	4.9995	4.9995	221001		AE63599	EPA 200.7	241329000	
03067	84	01055	230607	01	1	73.2	M	M	M	1.5	5.	5.	230601	230612	40263347004	EPA 200.7	405132750	
03067	84	01055	230712	01	1	755	M	M	M	1.5	5.	5.	230701	230717	40265075004	EPA 200.7	405132750	
03067	84	01055	230816	01	1	2320	M	M	M	1.5	5.	5.	230801	230821	AE68560	EPA 200.7	241329000	
03067	84	01055	230920	01	1	2370	M	M	M	1.5	5.	5.	230901	230925	AE69148	EPA 200.7	241329000	
03067	84	01059	160218	01	1	0.08	M	M	M	0.018	0.06	0.06	160201		40128408004	EPA 6020A	241329000	
03067	84	01059	160405	01	1	0.14	M	M	M	0.012	0.04	0.04	160401		40130257005	EPA 6020A	241329000	
03067	84	01059	160615	01	1		N	M	M	M	0.14	0.4666	0.4666	160601		40133877005	EPA 6020	241329000
03067	84	01059	160810	01	1		N	M	M	M	0.14	0.4666	0.4666	160801		40136543005	EPA 6020	241329000
03067	84	01059	161005	01	1		N	M	M	M	0.29	0.9666	0.9666	161001		40139741005	EPA 6020	241329000
03067	84	01059	161221	01	1		N	M	M	M	0.14	0.4666	0.4666	161201		40143755006	EPA 6020	241329000
03067	84	01059	170310	01	1		N	M	M	M	0.71	2.3664	2.3664	170301		40146662005	EPA 6020	241329000
03067	84	01059	170602	01	1		N	M	M	M	0.14	0.4666	0.4666	170601		40151013005	EPA 200.8	241329000
03067	84	01062	160218	01	1	0.28	M	M	M	0.074	0.2466	0.2466	160201		40128408004	EPA 6020A	241329000	
03067	84	01062	160405	01	1	0.42	M	M	M	0.037	0.1233	0.1233	160401		40130257005	EPA 6020A	241329000	
03067	84	01062	160615	01	1	0.21	M	M	M	0.07	0.2333	0.2333	160601		40133877005	EPA 6020	241329000	
03067	84	01062	160810	01	1	0.094	M	M	M	0.07	0.2333	0.2333	160801		40136543005	EPA 6020	241329000	
03067	84	01062	161005	01	1	0.59	M	M	M	0.14	0.4666	0.4666	161001		40139741005	EPA 6020	241329000	
03067	84	01062	161221	01	1	0.17	M	M	M	0.07	0.2333	0.2333	161201		40143755006	EPA 6020	241329000	
03067	84	01062	170310	01	1	0.42	M	M	M	0.35	1.1666	1.1666	170301		40146662005	EPA 6020	241329000	
03067	84	01062	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601		40151013005	EPA 200.7	241329000
03067	84	01077	221025	01	1		N	M	M	M	3.2	10.6656	10.6656	221001		AE63599	EPA 200.7	241329000
03067	84	01077	230607	01	1		N	M	M	M	3.2	10.	10.	230601	230612	40263347004	EPA 200.7	405132750
03067	84	01077	230712	01	1		N	M	M	M	3.2	10.	10.	230701	230717	40265075004	EPA 200.7	405132750
03067	84	01077	230816	01	1		N	M	M	M	3.2	10.	10.	230801	230821	AE68560	EPA 200.7	241329000
03067	84	01077	230920	01	1		N	M	M	M	3.2	10.	10.	230901	230925	AE69148	EPA 200.7	241329000
03067	84	01092	221025	01	1		N	M	M	M	11.6	38.6628	38.6628	221001		AE63599	EPA 200.7	241329000
03067	84	01092	230607	01	1		N	M	M	M	11.6	40.	40.	230601	230612	40263347004	EPA 200.7	405132750
03067	84	01092	230712	01	1		N	M	M	M	11.6	40.	40.	230701	230717	40265075004	EPA 200.7	405132750
03067	84	01092	230816	01	1		N	M	M	M	11.6	40.	40.	230801	230821	AE68560	EPA 200.7	241329000
03067	84	01092	230920	01	1		N	M	M	M	11.6	40.	40.	230901	230925	AE69148	EPA 200.7	241329000
03067	84	01097	160218	01	1	0.081	M	M	M	0.066	0.22	0.22	160201		40128408004	EPA 6020A	241329000	
03067	84	01097	160405	01	1	0.096	M	M	M	0.034	0.1133	0.1133	160401		40130257005	EPA 6020A	241329000	
03067	84	01097	160615	01	1		N	M	M	M	0.073	0.2433	0.2433	160601		40133877005	EPA 6020	241329000
03067	84	01097	160810	01	1		N	M	M	M	0.073	0.2433	0.2433	160801		40136543005	EPA 6020	241329000
03067	84	01097	161005	01	1		N	M	M	M	0.15	0.5	0.5	161001		40139741005	EPA 6020	241329000
03067	84	01097	161221	01	1	0.17	M	M	M	0.073	0.2433	0.2433	161201		40143755006	EPA 6020	241329000	
03067	84	01097	170310	01	1		N	M	M	M	0.36	1.1999	1.1999	170301		40146662005	EPA 6020	241329000
03067	84	01097	170602	01	1		N	M	M	M	0.15	0.5	0.5	170601		40151013005	EPA 200.8	241329000
03067	84	01132	160218	01	1	0.0089	M	M	M	0.0001	0.0004	0.0004	160201		40128408004	EPA 6020A	241329000	
03067	84	01132	160405	01	1	0.0127	M	M	M	0.0001	0.0002	0.0002	160401		40130257005	EPA 6020A	241329000	
03067	84	01132	160615	01	1	0.0044	M	M	M	0.0001	0.0004	0.0004	160601		40133877005	EPA 6020	241329000	
03067	84	01132	160810	01	1	0.0025	M	M	M	0.0001	0.0004	0.0004	160801		40136543005	EPA 6020	241329000	
03067	84	01132	161005	01	1	0.0217	M	M	M	0.0002	0.0007	0.0007	161001		40139741005	EPA 6020	241329000	
03067	84	01132	161221	01	1	0.0063	M	M	M	0.0001	0.0004	0.0004	161201		40143755006	EPA 6020	241329000	
03067	84	01132	170310	01	1	0.023	M	M	M	0.0005	0.0018	0.0018	170301		40146662005	EPA 6020	241329000	
03067	84	01132	170602	01	1	0.0038	M	M	M	0.0001	0.0005	0.0005	170601		40151013005	EPA 200.8	241329000	
03067	84	01147	160218	01	1	0.97	M	M	M	0.16	0.5333	0.5333	160201		40128408004	EPA 6020A	241329000	
03067	84	01147	160405	01	1	0.47	M	M	M	0.12	0.4	0.4	160401		40130257005	EPA 6020A	241329000	
03067	84	01147	160615	01	1	1.4	M	M	M	0.21	0.6999	0.6999	160601		40133877005	EPA 6020	241329000	
03067	84	01147	160810	01	1	1	M	M	M	0.21	0.6999	0.6999	160801		40136543005	EPA 6020	241329000	
03067	84	01147	161005	01	1	4.5	M	M	M	0.42	1.3999	1.3999	161001		40139741005	EPA 6020	241329000	
03067	84	01147	161221	01	1	1.9	M	M	M	0.21	0.6999	0.6999	161201		40143755006	EPA 6020	241329000	
03067	84	01147	170310	01	1	4.7	M	M	M	1.	3.333	3.333	170301		40146662005	EPA 6020	241329000	
03067	84	01147	170602	01	1	1.8	M	M	M	0.32	1.0666	1.0666	170601		40151013005	EPA 200.8	241329000	
03067	84	04189	160219	01	1	1181.04	M	M	M	0.	0.	0.	160201		LS-106	Calculated	241329000	
03067	84	04189	160411	01	1	1182.47	M	M	M	0.	0.	0.	160401		LS-106	Calculated	241329000	
03067	84	04189	160615	01	1	1182.5	M	M	M	0.	0.	0.	160601		LS-106	Calculated	241329000	
03067	84	04189	160803	01	1	1182.53	M	M	M	0.	0.	0.	160801		LS-106	Calculated	241329000	
03067	84	04189	161005	01	1	1182.45	M	M	M	0.	0.	0.	161001		LS-106	Calculated	241329000	

03067	84	04189	161220	01	1	1182.14	M	M	M	0.	0.	0.	161201	LS-106	Calculated	241329000	
03067	84	04189	170310	01	1	1182.69	M	M	M	0.	0.	0.	170301	LS-106	Calculated	241329000	
03067	84	04189	170602	01	1	1182.68	M	M	M	0.	0.	0.	170601	LS-106	Calculated	241329000	
03067	84	04189	180426	01	1	1182.58	M	M	M	0.	0.	0.	180401	40168127005	Calculated	241329000	
03067	84	04189	181025	01	1	1181.37	M	M	M	0.	0.	0.	181001	AE31425	calculated	241329000	
03067	84	04189	181025	01	1	1181.37	M	M	M	0.	0.	0.	181001	AE31428	calculated	241329000	
03067	84	04189	190424	01	1	1182.16	M	M	M	0.	0.	0.	190401	AE36963	calculated	241329000	
03067	84	04189	190424	01	1	1182.16	M	M	M	0.	0.	0.	190401	AE36966	calculated	241329000	
03067	84	04189	191024	01	1	1181.34	M	M	M	0.	0.	0.	191001	AE41533	calculated	241329000	
03067	84	04189	200302	01	1	1181.06	M	M	M	0.	0.	0.	200301	AE44199	calculated	241329000	
03067	84	04189	200414	01	1	1181.36	M	M	M	0.	0.	0.	200401	AE45281	calculated	241329000	
03067	84	04189	200901	01	1	1181.16	M	M	M	0.	0.	0.	200901	AE48239	calculated	241329000	
03067	84	04189	201014	01	1	1181.22	M	M	M	0.	0.	0.	201001	AE49166	calculated	241329000	
03067	84	04189	210301	01	1	1180.9	M	M	M	0.	0.	0.	210301	AE51792	calculated	241329000	
03067	84	04189	210421	01	1	1182.36	M	M	M	0.	0.	0.	210401	AE52826	calculated	241329000	
03067	84	04189	211026	01	1	1180.99	M	M	M	0.	0.	0.	211001	AE56953	calculated	241329000	
03067	84	04189	220412	01	1	1181.12	M	M	M	0.	0.	0.	220401	AE60083	calculated	241329000	
03067	84	04189	221025	01	1	1180.86	M	M	M	0.	0.	0.	221001	AE63599	calculated	241329000	
03067	84	11503	160218	01	1	1.574	M	M	M	0.938	3.1264	3.1264	160201	40128408004	EPA 903.1	241329000	
03067	84	11503	160405	01	1	2.19	M	M	M	0.905	3.0164	3.0164	160401	40130257005	EPA 903.1	241329000	
03067	84	11503	160615	01	1	1.078	M	M	M	1.08	3.5996	3.5996	160601	40133877005	EPA 903.1	241329000	
03067	84	11503	160810	01	1	1.175	M	M	M	0.648	2.1598	2.1598	160801	40136543005	EPA 903.1	241329000	
03067	84	11503	161005	01	1	3.975	M	M	M	1.17	3.8996	3.8996	161001	40139741005	EPA 903.1	241329000	
03067	84	11503	161221	01	1	1.315	M	M	M	0.444	1.4799	1.4799	161201	40143755006	EPA 903.1	241329000	
03067	84	11503	170310	01	1	2.02	M	M	M	3.08	10.2656	10.2656	170301	40146662005	Total Radium Cal	241329000	
03067	84	11503	170602	01	1	0.164	M	M	M	0.	0.	0.	170601	40151013005	Total Radium Cal	241329000	
03067	84	70300	160218	01	1	70	M	M	M	8.7	28.9971	28.9971	160201	40128408004	SM 2540C	241329000	
03067	84	70300	160405	01	1	94	M	M	M	8.7	28.9971	28.9971	160401	40130257005	SM 2540C	241329000	
03067	84	70300	160615	01	1	110	M	M	M	8.7	28.9971	28.9971	160601	40133877005	SM 2540C	241329000	
03067	84	70300	160810	01	1	94	M	M	M	8.7	28.9971	28.9971	160801	40136543005	SM 2540C	241329000	
03067	84	70300	161005	01	1	228	M	M	M	8.7	28.9971	28.9971	161001	40139741005	SM 2540C	241329000	
03067	84	70300	161221	01	1	186	M	M	M	8.7	28.9971	28.9971	161201	40143755006	SM 2540C	241329000	
03067	84	70300	170310	01	1	544	M	M	M	8.7	28.9971	28.9971	170301	40146662005	SM 2540C	241329000	
03067	84	70300	170602	01	1	72	M	M	M	8.7	28.9971	28.9971	170601	40151013005	SM 2540C	241329000	
03067	84	70300	171011	01	1	108	M	M	M	8.7	28.9971	28.9971	171001	40158568005	SM 2540C	241329000	
03067	84	70300	180426	01	1	88	M	M	M	8.7	28.9971	28.9971	180401	40168127005	SM 2540C	241329000	
03067	84	70300	181025	01	1	58	M	M	M	20.	66.66	66.66	181001	AE31425	Std Mtd 2540 C	241329000	
03067	84	70300	181025	01	1	68	M	M	M	20.	66.66	66.66	181001	AE31428	Std Mtd 2540 C	241329000	
03067	84	70300	190424	01	1	52	M	M	M	20.	66.66	66.66	190401	AE36963	Std Mtd 2540 C	241329000	
03067	84	70300	190424	01	1	52	M	M	M	20.	66.66	66.66	190401	AE36966	Std Mtd 2540 C	241329000	
03067	84	70300	191024	01	1	130	M	M	M	20.	66.66	66.66	191001	AE41533	Std Mtd 2540 C	241329000	
03067	84	70300	191024	01	1	36	M	M	M	20.	66.66	66.66	191001	AE41536	Std Mtd 2540 C	241329000	
03067	84	70300	200414	01	1	20	M	M	M	20.	66.66	66.66	200401	AE45281	Std Mtd 2540 C	241329000	
03067	84	70300	201014	01	1	160	M	M	M	20.	66.66	66.66	201001	AE49166	Std Mtd 2540 C	241329000	
03067	84	70300	210421	01	1	30	M	M	M	8.7	28.9971	28.9971	210401	AE52826	Std Mtd 2540 C	241329000	
03067	84	70300	211026	01	1	70	M	M	M	8.7	28.9971	28.9971	211001	AE56953	Std Mtd 2540 C	241329000	
03067	84	70300	220412	01	1	32	M	M	M	8.7	28.9971	28.9971	220401	AE60087	Std Mtd 2540 C	241329000	
03067	84	70300	220412	01	1	76	M	M	M	8.7	28.9971	28.9971	220401	AE60083	Std Mtd 2540 C	241329000	
03067	84	70300	221025	01	1	122	M	M	M	8.7	28.9971	28.9971	221001	AE63599	Std Mtd 2540 C	241329000	
03067	84	71900	160218	01	1		N	M	M	M	0.1	0.3333	0.3333	160201	40128408004	EPA 7470	241329000
03067	84	71900	160405	01	1		N	M	M	M	0.1	0.3333	0.3333	160401	40130257005	EPA 7470	241329000
03067	84	71900	160615	01	1		N	M	M	M	0.13	0.4333	0.4333	160601	40133877005	EPA 7470	241329000
03067	84	71900	160810	01	1		N	M	M	M	0.13	0.4333	0.4333	160801	40136543005	EPA 7470	241329000
03067	84	71900	161005	01	1		N	M	M	M	0.13	0.4333	0.4333	161001	40139741005	EPA 7470	241329000
03067	84	71900	161221	01	1		N	M	M	M	0.13	0.4333	0.4333	161201	40143755006	EPA 7470	241329000
03067	84	71900	170310	01	1		N	M	M	M	0.13	0.4333	0.4333	170301	40146662005	EPA 7470	241329000
03067	84	71900	170602	01	1		N	M	M	M	0.13	0.4333	0.4333	170601	40151013005	EPA 245.1	241329000
03067	86	00010	160405	01	1	6.04	M	M	M	0.1	0.3333	0.3333	160401	40130257006	FIELD	241329000	
03067	86	00010	160615	01	1	9.39	M	M	M	0.1	0.3333	0.3333	160601	40133877001	FIELD	241329000	
03067	86	00010	160810	01	1	12.59	M	M	M	0.1	0.3333	0.3333	160801	40136543001	FIELD	241329000	
03067	86	00010	161005	01	1	13.78	M	M	M	0.1	0.3333	0.3333	161001	40139741006	FIELD	241329000	
03067	86	00010	161220	01	1	10.11	M	M	M	0.1	0.3333	0.3333	161201	40143755001	FIELD	241329000	
03067	86	00010	170310	01	1	6.54	M	M	M	0.1	0.3333	0.3333	170301	40146662006	FIELD	241329000	
03067	86	00010	170602	01	1	8.74	M	M	M	0.1	0.3333	0.3333	170601	40151013006	FIELD	241329000	
03067	86	00010	180426	01	1	5.08	M	M	M	0.1	0.3333	0.3333	180401	40168127006	FIELD	241329000	
03067	86	00010	181025	01	1	12	M	M	M	0.1	0.3333	0.3333	181001	AE31426	TEMP	241329000	
03067	86	00010	190424	01	1	5.6	M	M	M	0.1	0.3333	0.3333	190401	AE36964	TEMP	241329000	
03067	86	00010	191024	01	1	12	M	M	M	0.1	0.3333	0.3333	191001	AE41534	TEMP	241329000	
03067	86	00010	200414	01	1	5.9	M	M	M	0.1	0.3333	0.3333	200401	AE45282	TEMP	241329000	
03067	86	00010	200901	01	1	12.6	M	M	M	0.1	0.3333	0.3333	200901	AE48240	TEMP	241329000	
03067	86	00010	201014	01	1	12.3	M	M	M	0.1	0.3333	0.3333	201001	AE49167	TEMP	241329000	
03067	86	00010	210301	01	1	5.8	M	M	M	0.1	0.3333	0.3333	210301	AE51793	TEMP	241329000	
03067	86	00010	210421	01	1	6.3	M	M	M	0.1	0.3333	0.3333	210401	AE52827	TEMP	241329000	

03067	86	00010	211026	01	1	12.7	M	M	M	0.1	0.3333	0.3333	211001	AE56954	TEMP	241329000	
03067	86	00010	220412	01	1	5.7	M	M	M	0.1	0.3333	0.3333	220401	AE60084	TEMP	241329000	
03067	86	00010	221025	01	1	12	M	M	M	0.1	0.3333	0.3333	221001	AE63600	TEMP	241329000	
03067	86	00010	230607	01	1	8.4	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347005	TEMP	241329000
03067	86	00010	230712	01	1	10	M	M	M	0.1	0.1	0.1	230701	230712	40265075005	TEMP	241329000
03067	86	00010	230816	01	1	11.6	M	M	M	0.1	0.3333	0.3333	230801	230816	AE68561	TEMP	241329000
03067	86	00010	230920	01	1	12	M	M	M	0.1	0.3333	0.3333	230901	230920	AE69149	TEMP	241329000
03067	86	00094	160405	01	1	160	M	M	M	0.	0.	0.	160401	40130257006	FIELD	241329000	
03067	86	00094	160615	01	1	179	M	M	M	0.	0.	0.	160601	40133877001	FIELD	241329000	
03067	86	00094	160810	01	1	179	M	M	M	0.	0.	0.	160801	40136543001	FIELD	241329000	
03067	86	00094	161005	01	1	190	M	M	M	0.	0.	0.	161001	40139741006	FIELD	241329000	
03067	86	00094	161220	01	1	200	M	M	M	0.	0.	0.	161201	40143755001	FIELD	241329000	
03067	86	00094	170310	01	1	200	M	M	M	0.	0.	0.	170301	40146662006	FIELD	241329000	
03067	86	00094	170602	01	1	197	M	M	M	0.	0.	0.	170601	40151013006	FIELD	241329000	
03067	86	00094	180426	01	1	0.179	M	M	M	0.	0.	0.	180401	40168127006	FIELD	241329000	
03067	86	00094	181025	01	1	186	M	M	M	0.	0.	0.	181001	AE31426	FCOND25	241329000	
03067	86	00094	190424	01	1	160	M	M	M	0.	0.	0.	190401	AE36964	FCOND25	241329000	
03067	86	00094	191024	01	1	168	M	M	M	0.	0.	0.	191001	AE41534	FCOND25	241329000	
03067	86	00094	200414	01	1	160	M	M	M	0.	0.	0.	200401	AE45282	FCOND25	241329000	
03067	86	00094	200901	01	1	181	M	M	M	0.	0.	0.	200901	AE48240	FCOND25	241329000	
03067	86	00094	201014	01	1	233	M	M	M	0.	0.	0.	201001	AE49167	FCOND25	241329000	
03067	86	00094	210301	01	1	223	M	M	M	0.	0.	0.	210301	AE51793	FCOND25	241329000	
03067	86	00094	210421	01	1	210	M	M	M	0.	0.	0.	210401	AE52827	FCOND25	241329000	
03067	86	00094	211026	01	1	215	M	M	M	0.	0.	0.	211001	AE56954	FCOND25	241329000	
03067	86	00094	220412	01	1	213	M	M	M	0.	0.	0.	220401	AE60084	FCOND25	241329000	
03067	86	00094	221025	01	1	316	M	M	M	0.	0.	0.	221001	AE63600	FCOND25	241329000	
03067	86	00094	230607	01	1	295	M	M	M	0.	0.	0.	230601	230607	40263347005	FCOND25	241329000
03067	86	00094	230712	01	1	254	M	M	M	0.	0.	0.	230701	230712	40265075005	FCOND25	241329000
03067	86	00094	230816	01	1	350	M	M	M	0.	0.	0.	230801	230816	AE68561	FCOND25	241329000
03067	86	00094	230920	01	1	393	M	M	M	0.	0.	0.	230901	230920	AE69149	FCOND25	241329000
03067	86	00400	160405	01	1	6.22	M	M	M	0.1	0.3333	0.3333	160401	40130257006	FIELD	241329000	
03067	86	00400	160615	01	1	6.52	M	M	M	0.1	0.3333	0.3333	160601	40133877001	FIELD	241329000	
03067	86	00400	160810	01	1	6.71	M	M	M	0.1	0.3333	0.3333	160801	40136543001	FIELD	241329000	
03067	86	00400	161005	01	1	6.83	M	M	M	0.1	0.3333	0.3333	161001	40139741006	FIELD	241329000	
03067	86	00400	161220	01	1	7.16	M	M	M	0.1	0.3333	0.3333	161201	40143755001	FIELD	241329000	
03067	86	00400	170310	01	1	7.42	M	M	M	0.1	0.3333	0.3333	170301	40146662006	FIELD	241329000	
03067	86	00400	170602	01	1	7.58	M	M	M	0.1	0.3333	0.3333	170601	40151013006	FIELD	241329000	
03067	86	00400	171011	01	1	6.13	M	M	M	0.1	0.3333	0.3333	171001	40158568006	FIELD	241329000	
03067	86	00400	180426	01	1	6.85	M	M	M	0.1	0.3333	0.3333	180401	40168127006	FIELD	241329000	
03067	86	00400	181025	01	1	6	M	M	M	0.1	0.3333	0.3333	181001	AE31426	FieldPH	241329000	
03067	86	00400	190424	01	1	5.74	M	M	M	0.1	0.3333	0.3333	190401	AE36964	FieldPH	241329000	
03067	86	00400	191024	01	1	5.5	M	M	M	0.1	0.3333	0.3333	191001	AE41534	FieldPH	241329000	
03067	86	00400	200414	01	1	5.84	M	M	M	0.1	0.3333	0.3333	200401	AE45282	FieldPH	241329000	
03067	86	00400	200901	01	1	5.77	M	M	M	0.1	0.3333	0.3333	200901	AE48240	FieldPH	241329000	
03067	86	00400	201014	01	1	5.56	M	M	M	0.1	0.3333	0.3333	201001	AE49167	FieldPH	241329000	
03067	86	00400	210301	01	1	5.92	M	M	M	0.1	0.3333	0.3333	210301	AE51793	FieldPH	241329000	
03067	86	00400	210421	01	1	5.7	M	M	M	0.1	0.3333	0.3333	210401	AE52827	FieldPH	241329000	
03067	86	00400	211026	01	1	5.7	M	M	M	0.1	0.3333	0.3333	211001	AE56954	FieldPH	241329000	
03067	86	00400	220412	01	1	5.57	M	M	M	0.1	0.3333	0.3333	220401	AE60084	FieldPH	241329000	
03067	86	00400	221025	01	1	5.3	M	M	M	0.1	0.3333	0.3333	221001	AE63600	FieldPH	241329000	
03067	86	00400	230607	01	1	5.45	M	M	M	0.1	0.3333	0.3333	230601	230607	40263347005	FIELDPH	241329000
03067	86	00400	230712	01	1	5.8	M	M	M	0.1	0.1	0.1	230701	230712	40265075005	FIELDPH	241329000
03067	86	00400	230816	01	1	5.7	M	M	M	0.1	0.1	0.1	230801	230816	AE68561	FieldPH	241329000
03067	86	00400	230920	01	1	5.6	M	M	M	0.1	0.1	0.1	230901	230920	AE69149	FieldPH	241329000
03067	86	00410	170602	01	1	60	M	M	M	5.	16.665	16.665	170601	40151013006	SM 2320B	241329000	
03067	86	00410	191024	01	1	49	M	M	M	5.	16.665	16.665	191001	AE41541	Std Mtd 2320B	241329000	
03067	86	00410	201014	01	1	52	M	M	M	5.	16.665	16.665	201001	AE49167	Std Mtd 2320B	241329000	
03067	86	00410	211026	01	1	48.4	M	M	M	5.	16.665	16.665	211001	AE56954	Std Mtd 2320B	241329000	
03067	86	00410	220412	01	1	53.7	M	M	M	5.2	17.3316	17.3316	220401	AE60084	Std Mtd 2320B	241329000	
03067	86	00410	221025	01	1	40.7	M	M	M	5.	16.665	16.665	221001	AE63600	Std Mtd 2320B	241329000	
03067	86	00630	221025	01	1	1.521	M	M	M	0.065	0.2166	0.2166	221001	AE63600	EPA 300.0	241329000	
03067	86	00630	230607	01	1	1.4	M	M	M	0.059	0.25	0.25	230601	230619	40263347005	EPA 353.2	405132750
03067	86	00630	230712	01	1	1.2	M	M	M	0.059	0.25	0.25	230701	230725	40265075005	EPA 353.2	405132750
03067	86	00630	230816	01	1	1.3	M	M	M	0.059	0.25	0.25	230801	230829	AE68561	EPA 353.2	405132750
03067	86	00630	230920	01	1	1.2	M	M	M	0.065	0.25	0.25	230901	230922	AE69149	EPA 353.2	405132750
03067	86	00900	230607	01	1	118	M	M	M	1.	5.4	5.4	230601	230612	40263347005	EPA 200.7	405132750
03067	86	00900	230712	01	1	101	M	M	M	1.	5.4	5.4	230701	230717	40265075005	EPA 200.7	405132750
03067	86	00900	230816	01	1	146	M	M	M	1.	5.4	5.4	230801	230821	AE68561	Std Mtd 2340B	241329000
03067	86	00900	230920	01	1	167	M	M	M	1.	5.4	5.4	230901	230925	AE69149	Std Mtd 2340B	241329000
03067	86	00916	160218	01	1	17	M	M	M	0.019	0.0633	0.0633	160201	40128408005	EPA 6020A	241329000	
03067	86	00916	160405	01	1	18.2	M	M	M	0.01	0.0333	0.0333	160401	40130257006	EPA 6020A	241329000	
03067	86	00916	160615	01	1	19.1	M	M	M	0.074	0.2466	0.2466	160601	40133877001	EPA 6020	241329000	
03067	86	00916	160810	01	1	21	M	M	M	0.074	0.2466	0.2466	160801	40136543001	EPA 6020	241329000	

03067	86	00916	161005	01	1	22	M	M	M	0.074	0.2466	0.2466	161001	40139741006	EPA 6020	241329000	
03067	86	00916	161220	01	1	25.9	M	M	M	0.074	0.2466	0.2466	161201	40143755001	EPA 6020	241329000	
03067	86	00916	170310	01	1	25.7	M	M	M	0.074	0.2466	0.2466	170301	40146662006	EPA 6020	241329000	
03067	86	00916	170602	01	1	21.9	M	M	M	0.0977	0.3256	0.3256	170601	40151013006	EPA 200.7	241329000	
03067	86	00916	171011	01	1	26	M	M	M	0.0977	0.3256	0.3256	171001	40158568006	EPA 200.7	241329000	
03067	86	00916	180426	01	1	20.1	M	M	M	0.0977	0.3256	0.3256	180401	40168127006	EPA 200.7	241329000	
03067	86	00916	181025	01	1	21	M	M	M	0.017	0.0567	0.0567	181001	AE31426	EPA 200.7	241329000	
03067	86	00916	190424	01	1	18	M	M	M	0.017	0.0567	0.0567	190401	AE36964	EPA 200.7	241329000	
03067	86	00916	191024	01	1	19	M	M	M	0.027	0.09	0.09	191001	AE41534	EPA 200.7	241329000	
03067	86	00916	200414	01	1	18	M	M	M	0.043	0.1433	0.1433	200401	AE45282	EPA 200.7	241329000	
03067	86	00916	201014	01	1	27.4	M	M	M	0.114	0.38	0.38	201001	AE49167	EPA 200.7	241329000	
03067	86	00916	210301	01	1	28.2	M	M	M	0.114	0.38	0.38	210301	AE51793	EPA 200.7	241329000	
03067	86	00916	210421	01	1	27	M	M	M	0.114	0.38	0.38	210401	AE52827	EPA 200.7	241329000	
03067	86	00916	211026	01	1	26.4	M	M	M	0.114	0.38	0.38	211001	AE56954	EPA 200.7	241329000	
03067	86	00916	220412	01	1	24.6	M	M	M	0.0762	0.254	0.254	220401	AE60084	EPA 200.7	241329000	
03067	86	00916	221025	01	1	36.2	M	M	M	0.114	0.38	0.38	221001	AE63600	EPA 200.7	241329000	
03067	86	00916	230607	01	1	34.5	M	M	M	0.114	0.5	0.5	230601	230612	40263347005	EPA 200.7	405132750
03067	86	00916	230712	01	1	29.5	M	M	M	0.114	0.5	0.5	230701	230717	40265075005	EPA 200.7	405132750
03067	86	00916	230816	01	1	42.7	M	M	M	0.114	0.5	0.5	230801	230821	AE68561	EPA 200.7	241329000
03067	86	00916	230920	01	1	49	M	M	M	0.114	0.5	0.5	230901	230925	AE69149	EPA 200.7	241329000
03067	86	00940	160218	01	1	9.4	M	M	M	2.	6.666	6.666	160201	40128408005	EPA 300.0	241329000	
03067	86	00940	160405	01	1	7.4	M	M	M	2.	6.666	6.666	160401	40130257006	EPA 300.0	241329000	
03067	86	00940	160615	01	1	7.9	M	M	M	2.	6.666	6.666	160601	40133877001	EPA 300.0	241329000	
03067	86	00940	160810	01	1	6.9	M	M	M	2.	6.666	6.666	160801	40136543001	EPA 300.0	241329000	
03067	86	00940	161005	01	1	5.4	M	M	M	0.5	1.6665	1.6665	161001	40139741006	EPA 300.0	241329000	
03067	86	00940	161220	01	1	4.7	M	M	M	0.5	1.6665	1.6665	161201	40143755001	EPA 300.0	241329000	
03067	86	00940	170310	01	1	3.8	M	M	M	0.5	1.6665	1.6665	170301	40146662006	EPA 300.0	241329000	
03067	86	00940	170602	01	1	5.4	M	M	M	0.5	1.6665	1.6665	170601	40151013006	EPA 300.0	241329000	
03067	86	00940	171011	01	1	6.2	M	M	M	0.5	1.6665	1.6665	171001	40158568006	EPA 300.0	241329000	
03067	86	00940	180426	01	1	3	M	M	M	0.5	1.6665	1.6665	180401	40168127006	EPA 300.0	241329000	
03067	86	00940	181025	01	1	2.7	M	M	M	0.21	0.6999	0.6999	181001	AE31426	EPA 300.0	241329000	
03067	86	00940	190424	01	1	1.8	M	M	M	0.21	0.6999	0.6999	190401	AE36964	EPA 300.0	241329000	
03067	86	00940	191024	01	1	1.8	M	M	M	0.18	0.5999	0.5999	191001	AE41534	EPA 300.0	241329000	
03067	86	00940	200414	01	1	2.1	M	M	M	0.002	0.0067	0.0067	200401	AE45282	EPA 300.0	241329000	
03067	86	00940	201014	01	1	9.2	M	M	M	0.002	0.0067	0.0067	201001	AE49167	EPA 300.0	241329000	
03067	86	00940	210301	01	1	6.5	M	M	M	0.023	0.0767	0.0767	210301	AE51793	EPA 300.0	241329000	
03067	86	00940	210421	01	1	6.1	M	M	M	0.43	1.4332	1.4332	210401	AE52827	EPA 300.0	241329000	
03067	86	00940	211026	01	1	5.7	F	M	M	0.43	1.4332	1.4332	211001	AE56954	EPA 300.0	241329000	
03067	86	00940	220412	01	1	5.1	M	M	M	0.43	1.4332	1.4332	220401	AE60084	EPA 300.0	241329000	
03067	86	00940	221025	01	1	10.4	M	M	M	0.43	1.4332	1.4332	221001	AE63600	EPA 300.0	241329000	
03067	86	00945	160218	01	1	9	M	M	M	2.	6.666	6.666	160201	40128408005	EPA 300.0	241329000	
03067	86	00945	160405	01	1	9.2	M	M	M	2.	6.666	6.666	160401	40130257006	EPA 300.0	241329000	
03067	86	00945	160615	01	1	10.8	M	M	M	2.	6.666	6.666	160601	40133877001	EPA 300.0	241329000	
03067	86	00945	160810	01	1	10	M	M	M	2.	6.666	6.666	160801	40136543001	EPA 300.0	241329000	
03067	86	00945	161005	01	1	10	M	M	M	1.	3.333	3.333	161001	40139741006	EPA 300.0	241329000	
03067	86	00945	161220	01	1	12.5	M	M	M	1.	3.333	3.333	161201	40143755001	EPA 300.0	241329000	
03067	86	00945	170310	01	1	15.2	M	M	M	1.	3.333	3.333	170301	40146662006	EPA 300.0	241329000	
03067	86	00945	170602	01	1	19.9	M	M	M	1.	3.333	3.333	170601	40151013006	EPA 300.0	241329000	
03067	86	00945	171011	01	1	25.5	M	M	M	5.	16.665	16.665	171001	40158568006	EPA 300.0	241329000	
03067	86	00945	180426	01	1	17.5	M	M	M	1.	3.333	3.333	180401	40168127006	EPA 300.0	241329000	
03067	86	00945	181025	01	1	26	M	M	M	0.11	0.3666	0.3666	181001	AE31426	EPA 300.0	241329000	
03067	86	00945	190424	01	1	21	M	M	M	0.11	0.3666	0.3666	190401	AE36964	EPA 300.0	241329000	
03067	86	00945	191024	01	1	24	M	M	M	0.14	0.4666	0.4666	191001	AE41534	EPA 300.0	241329000	
03067	86	00945	200414	01	1	27	M	M	M	0.031	0.1033	0.1033	200401	AE45282	EPA 300.0	241329000	
03067	86	00945	201014	01	1	42	M	M	M	0.031	0.1033	0.1033	201001	AE49167	EPA 300.0	241329000	
03067	86	00945	210421	01	1	36	M	M	M	0.44	1.4665	1.4665	210401	AE52827	EPA 300.0	241329000	
03067	86	00945	211026	01	1	42	M	M	M	0.44	1.4665	1.4665	211001	AE56954	EPA 300.0	241329000	
03067	86	00945	220412	01	1	42	M	M	M	0.44	1.4665	1.4665	220401	AE60084	EPA 300.0	241329000	
03067	86	00945	221025	01	1	89.1	M	M	M	2.2	7.3326	7.3326	221001	AE63600	EPA 300.0	241329000	
03067	86	00951	160218	01	1		N	M	M	M	0.2	0.6666	0.6666	160201	40128408005	EPA 300.0	241329000
03067	86	00951	160405	01	1		N	M	M	M	0.2	0.6666	0.6666	160401	40130257006	EPA 300.0	241329000
03067	86	00951	160615	01	1		N	M	M	M	0.2	0.6666	0.6666	160601	40133877001	EPA 300.0	241329000
03067	86	00951	160810	01	1		N	M	M	M	0.2	0.6666	0.6666	160801	40136543001	EPA 300.0	241329000
03067	86	00951	161005	01	1		N	M	M	M	0.1	0.3333	0.3333	161001	40139741006	EPA 300.0	241329000
03067	86	00951	161220	01	1		N	M	M	M	0.1	0.3333	0.3333	161201	40143755001	EPA 300.0	241329000
03067	86	00951	170310	01	1		N	M	M	M	0.1	0.3333	0.3333	170301	40146662006	EPA 300.0	241329000
03067	86	00951	170602	01	1		N	M	M	M	0.1	0.3333	0.3333	170601	40151013006	EPA 300.0	241329000
03067	86	00951	171011	01	1		N	M	M	M	0.1	0.3333	0.3333	171001	40158568006	EPA 300.0	241329000
03067	86	00951	180426	01	1		N	M	M	M	0.1	0.3333	0.3333	180401	40168127006	EPA 300.0	241329000
03067	86	00951	181025	01	1	0.065	M	M	M	0.04	0.1333	0.1333	181001	AE31426	EPA 300.0	241329000	
03067	86	00951	190424	01	1	0.04	M	M	M	0.04	0.1333	0.1333	190401	AE36964	EPA 300.0	241329000	
03067	86	00951	191024	01	1		N	M	M	M	0.07	0.2333	0.2333	191001	AE41534	EPA 300.0	241329000
03067	86	00951	200414	01	1	0.029	M	M	M	0.007	0.0233	0.0233	200401	AE45282	EPA 300.0	241329000	

03067	86	00951	200901	01	1	0.013	M	M	M	0.007	0.0233	0.0233	200901	AE48240	EPA 300.0	241329000
03067	86	00951	201014	01	1	0.029	M	M	M	0.007	0.0233	0.0233	201001	AE49167	EPA 300.0	241329000
03067	86	00951	210421	01	1		N	M	M	0.095	0.3166	0.3166	210401	AE52827	EPA 300.0	241329000
03067	86	00951	211026	01	1		N	M	M	0.095	0.3166	0.3166	211001	AE56954	EPA 300.0	241329000
03067	86	00951	220412	01	1		N	M	M	0.095	0.3166	0.3166	220401	AE60084	EPA 300.0	241329000
03067	86	00951	221025	01	1		N	M	M	0.095	0.3166	0.3166	221001	AE63600	EPA 300.0	241329000
03067	86	01002	160218	01	1	0.2	M	M	M	0.11	0.3666	0.3666	160201	40128408005	EPA 6020A	241329000
03067	86	01002	160405	01	1		N	M	M	0.73	2.4331	2.4331	160401	40130257006	EPA 6020A	241329000
03067	86	01002	160615	01	1	0.16	M	M	M	0.099	0.33	0.33	160601	40133877001	EPA 6020	241329000
03067	86	01002	160810	01	1	0.12	M	M	M	0.099	0.33	0.33	160801	40136543001	EPA 6020	241329000
03067	86	01002	161005	01	1		N	M	M	0.099	0.33	0.33	161001	40139741006	EPA 6020	241329000
03067	86	01002	161220	01	1	0.25	M	M	M	0.099	0.33	0.33	161201	40143755001	EPA 6020	241329000
03067	86	01002	170310	01	1		N	M	M	0.099	0.33	0.33	170301	40146662006	EPA 6020	241329000
03067	86	01002	170602	01	1		N	M	M	0.28	0.9332	0.9332	170601	40151013006	EPA 200.8	241329000
03067	86	01007	160218	01	1	49.1	M	M	M	0.15	0.5	0.5	160201	40128408005	EPA 6020A	241329000
03067	86	01007	160405	01	1	36.9	M	M	M	0.057	0.19	0.19	160401	40130257006	EPA 6020A	241329000
03067	86	01007	160615	01	1	41.6	M	M	M	0.062	0.2066	0.2066	160601	40133877001	EPA 6020	241329000
03067	86	01007	160810	01	1	45.7	M	M	M	0.062	0.2066	0.2066	160801	40136543001	EPA 6020	241329000
03067	86	01007	161005	01	1	46.9	M	M	M	0.062	0.2066	0.2066	161001	40139741006	EPA 6020	241329000
03067	86	01007	161220	01	1	54.1	M	M	M	0.062	0.2066	0.2066	161201	40143755001	EPA 6020	241329000
03067	86	01007	170310	01	1	51	M	M	M	0.062	0.2066	0.2066	170301	40146662006	EPA 6020	241329000
03067	86	01007	170602	01	1	45.8	M	M	M	1.5	4.9995	4.9995	170601	40151013006	EPA 200.7	241329000
03067	86	01012	160218	01	1		N	M	M	0.	0.0001	0.0001	160201	40128408005	EPA 6020A	241329000
03067	86	01012	160405	01	1		N	M	M	0.	0.0001	0.0001	160401	40130257006	EPA 6020A	241329000
03067	86	01012	160615	01	1		N	M	M	0.0001	0.0004	0.0004	160601	40133877001	EPA 6020	241329000
03067	86	01012	160810	01	1	0.00019	M	M	M	0.0001	0.0004	0.0004	160801	40136543001	EPA 6020	241329000
03067	86	01012	161005	01	1		N	M	M	0.0001	0.0004	0.0004	161001	40139741006	EPA 6020	241329000
03067	86	01012	161220	01	1	0.00039	M	M	M	0.0001	0.0004	0.0004	161201	40143755001	EPA 6020	241329000
03067	86	01012	170310	01	1		N	M	M	0.0001	0.0004	0.0004	170301	40146662006	EPA 6020	241329000
03067	86	01012	170602	01	1		N	M	M	0.0012	0.004	0.004	170601	40151013006	EPA 200.7	241329000
03067	86	01022	160218	01	1	0.01	M	M	M	0.0021	0.007	0.007	160201	40128408005	EPA 6020A	241329000
03067	86	01022	160405	01	1	0.0097	M	M	M	0.0004	0.0015	0.0015	160401	40130257006	EPA 6020A	241329000
03067	86	01022	160615	01	1	0.0089	M	M	M	0.002	0.0067	0.0067	160601	40133877001	EPA 6020	241329000
03067	86	01022	160810	01	1	0.012	M	M	M	0.002	0.0067	0.0067	160801	40136543001	EPA 6020	241329000
03067	86	01022	161005	01	1	0.012	M	M	M	0.002	0.0067	0.0067	161001	40139741006	EPA 6020	241329000
03067	86	01022	161220	01	1	0.014	M	M	M	0.002	0.0067	0.0067	161201	40143755001	EPA 6020	241329000
03067	86	01022	170310	01	1	0.011	M	M	M	0.002	0.0067	0.0067	170301	40146662006	EPA 6020	241329000
03067	86	01022	170602	01	1	0.031	M	M	M	0.0067	0.0223	0.0223	170601	40151013006	EPA 200.7	241329000
03067	86	01022	171011	01	1	0.0143	M	M	M	0.0067	0.0223	0.0223	171001	40158568006	EPA 200.7	241329000
03067	86	01022	180426	01	1	0.0097	M	M	M	0.0067	0.0223	0.0223	180401	40168127006	EPA 200.7	241329000
03067	86	01022	181025	01	1	0.017	M	M	M	0.0023	0.0077	0.0077	181001	AE31426	EPA 200.7	241329000
03067	86	01022	190424	01	1	0.0091	M	M	M	0.0023	0.0077	0.0077	190401	AE36964	EPA 200.7	241329000
03067	86	01022	191024	01	1	0.018	M	M	M	0.0045	0.015	0.015	191001	AE41534	EPA 200.7	241329000
03067	86	01022	200414	01	1	0.014	M	M	M	0.0035	0.0117	0.0117	200401	AE45282	EPA 200.7	241329000
03067	86	01022	201014	01	1	0.0213	M	M	M	0.0173	0.0577	0.0577	201001	AE49167	EPA 200.7	241329000
03067	86	01022	210421	01	1	0.0184	F	M	M	0.0173	0.0577	0.0577	210401	AE52827	EPA 200.7	241329000
03067	86	01022	211026	01	1	0.0224	M	M	M	0.0173	0.0577	0.0577	211001	AE56954	EPA 200.7	241329000
03067	86	01022	220412	01	1	0.0215	F	M	M	0.003	0.01	0.01	220401	AE60084	EPA 200.7	241329000
03067	86	01022	221025	01	1	0.0312	M	M	M	0.0173	0.0577	0.0577	221001	AE63600	EPA 200.7	241329000
03067	86	01027	160218	01	1		N	M	M	0.027	0.09	0.09	160201	40128408005	EPA 6020A	241329000
03067	86	01027	160405	01	1		N	M	M	0.025	0.0833	0.0833	160401	40130257006	EPA 6020A	241329000
03067	86	01027	160615	01	1		N	M	M	0.089	0.2966	0.2966	160601	40133877001	EPA 6020	241329000
03067	86	01027	160810	01	1		N	M	M	0.089	0.2966	0.2966	160801	40136543001	EPA 6020	241329000
03067	86	01027	161005	01	1		N	M	M	0.089	0.2966	0.2966	161001	40139741006	EPA 6020	241329000
03067	86	01027	161220	01	1	0.27	M	M	M	0.089	0.2966	0.2966	161201	40143755001	EPA 6020	241329000
03067	86	01027	170310	01	1		N	M	M	0.089	0.2966	0.2966	170301	40146662006	EPA 6020	241329000
03067	86	01027	170602	01	1		N	M	M	1.3	4.3329	4.3329	170601	40151013006	EPA 200.7	241329000
03067	86	01034	160218	01	1	0.5	M	M	M	0.24	0.7999	0.7999	160201	40128408005	EPA 6020A	241329000
03067	86	01034	160405	01	1	0.22	M	M	M	0.079	0.2633	0.2633	160401	40130257006	EPA 6020A	241329000
03067	86	01034	160615	01	1		N	M	M	0.39	1.2999	1.2999	160601	40133877001	EPA 6020	241329000
03067	86	01034	160810	01	1	0.54	M	M	M	0.39	1.2999	1.2999	160801	40136543001	EPA 6020	241329000
03067	86	01034	161005	01	1		N	M	M	0.39	1.2999	1.2999	161001	40139741006	EPA 6020	241329000
03067	86	01034	161220	01	1	0.54	M	M	M	0.39	1.2999	1.2999	161201	40143755001	EPA 6020	241329000
03067	86	01034	170310	01	1	1	M	M	M	0.39	1.2999	1.2999	170301	40146662006	EPA 6020	241329000
03067	86	01034	170602	01	1		N	M	M	2.5	8.3325	8.3325	170601	40151013006	EPA 200.7	241329000
03067	86	01037	160218	01	1	0.54	M	M	M	0.052	0.1733	0.1733	160201	40128408005	EPA 6020A	241329000
03067	86	01037	160405	01	1	0.14	M	M	M	0.051	0.17	0.17	160401	40130257006	EPA 6020A	241329000
03067	86	01037	160615	01	1	0.2	M	M	M	0.036	0.12	0.12	160601	40133877001	EPA 6020	241329000
03067	86	01037	160810	01	1	0.14	M	M	M	0.036	0.12	0.12	160801	40136543001	EPA 6020	241329000
03067	86	01037	161005	01	1	0.092	M	M	M	0.036	0.12	0.12	161001	40139741006	EPA 6020	241329000
03067	86	01037	161220	01	1	0.5	M	M	M	0.036	0.12	0.12	161201	40143755001	EPA 6020	241329000
03067	86	01037	170310	01	1	0.24	M	M	M	0.036	0.12	0.12	170301	40146662006	EPA 6020	241329000
03067	86	01037	170602	01	1		N	M	M	1.4	4.6662	4.6662	170601	40151013006	EPA 200.7	241329000

03067	86	01042	221025	01	1	4.2	M	M	M	3.4	11.3322	11.3322	221001		AE63600	EPA 200.7	241329000	
03067	86	01042	230607	01	1		N	M	M	M	3.4	10.	10.	230601	230612	40263347005	EPA 200.7	405132750
03067	86	01042	230712	01	1		N	M	M	M	3.4	10.	10.	230701	230717	40265075005	EPA 200.7	405132750
03067	86	01042	230816	01	1		N	M	M	M	3.4	10.	10.	230801	230821	AE68561	EPA 200.7	241329000
03067	86	01042	230920	01	1		N	M	M	M	3.4	10.	10.	230901	230925	AE69149	EPA 200.7	241329000
03067	86	01051	160218	01	1	0.31	M	M	M	0.033	0.11	0.11	160201		40128408005	EPA 6020A	241329000	
03067	86	01051	160405	01	1	0.055	M	M	M	0.025	0.0833	0.0833	160401		40130257006	EPA 6020A	241329000	
03067	86	01051	160615	01	1	0.11	M	M	M	0.04	0.1333	0.1333	160601		40133877001	EPA 6020	241329000	
03067	86	01051	160810	01	1	0.048	M	M	M	0.04	0.1333	0.1333	160801		40136543001	EPA 6020	241329000	
03067	86	01051	161005	01	1		N	M	M	M	0.04	0.1333	0.1333	161001		40139741006	EPA 6020	241329000
03067	86	01051	161220	01	1	0.35	M	M	M	0.04	0.1333	0.1333	161201		40143755001	EPA 6020	241329000	
03067	86	01051	170310	01	1	0.1	M	M	M	0.04	0.1333	0.1333	170301		40146662006	EPA 6020	241329000	
03067	86	01051	170602	01	1		N	M	M	M	0.2	0.6666	0.6666	170601		40151013006	EPA 200.8	241329000
03067	86	01055	221025	01	1	6.6	M	M	M	1.5	4.9995	4.9995	221001		AE63600	EPA 200.7	241329000	
03067	86	01055	230607	01	1	4	J	M	M	M	1.5	5.	5.	230601	230612	40263347005	EPA 200.7	405132750
03067	86	01055	230712	01	1	3.4	J	M	M	M	1.5	5.	5.	230701	230717	40265075005	EPA 200.7	405132750
03067	86	01055	230816	01	1	5.6	M	M	M	1.5	5.	5.	230801	230821	AE68561	EPA 200.7	241329000	
03067	86	01055	230920	01	1	16.2	M	M	M	1.5	5.	5.	230901	230925	AE69149	EPA 200.7	241329000	
03067	86	01059	160218	01	1	0.027	M	M	M	0.018	0.06	0.06	160201		40128408005	EPA 6020A	241329000	
03067	86	01059	160405	01	1		N	M	M	M	0.012	0.04	0.04	160401		40130257006	EPA 6020A	241329000
03067	86	01059	160615	01	1		N	M	M	M	0.14	0.4666	0.4666	160601		40133877001	EPA 6020	241329000
03067	86	01059	160810	01	1	0.62	M	M	M	0.14	0.4666	0.4666	160801		40136543001	EPA 6020	241329000	
03067	86	01059	161005	01	1		N	M	M	M	0.14	0.4666	0.4666	161001		40139741006	EPA 6020	241329000
03067	86	01059	161220	01	1	0.41	M	M	M	0.14	0.4666	0.4666	161201		40143755001	EPA 6020	241329000	
03067	86	01059	170310	01	1		N	M	M	M	0.14	0.4666	0.4666	170301		40146662006	EPA 6020	241329000
03067	86	01059	170602	01	1		N	M	M	M	0.14	0.4666	0.4666	170601		40151013006	EPA 200.8	241329000
03067	86	01062	160218	01	1	0.22	M	M	M	0.074	0.2466	0.2466	160201		40128408005	EPA 6020A	241329000	
03067	86	01062	160405	01	1	0.25	M	M	M	0.037	0.1233	0.1233	160401		40130257006	EPA 6020A	241329000	
03067	86	01062	160615	01	1	0.54	M	M	M	0.07	0.2333	0.2333	160601		40133877001	EPA 6020	241329000	
03067	86	01062	160810	01	1	0.59	M	M	M	0.07	0.2333	0.2333	160801		40136543001	EPA 6020	241329000	
03067	86	01062	161005	01	1	0.41	M	M	M	0.07	0.2333	0.2333	161001		40139741006	EPA 6020	241329000	
03067	86	01062	161220	01	1	0.48	M	M	M	0.07	0.2333	0.2333	161201		40143755001	EPA 6020	241329000	
03067	86	01062	170310	01	1	0.21	M	M	M	0.07	0.2333	0.2333	170301		40146662006	EPA 6020	241329000	
03067	86	01062	170602	01	1		N	M	M	M	1.4	4.6662	4.6662	170601		40151013006	EPA 200.7	241329000
03067	86	01077	221025	01	1		N	M	M	M	3.2	10.6656	10.6656	221001		AE63600	EPA 200.7	241329000
03067	86	01077	230607	01	1		N	M	M	M	3.2	10.	10.	230601	230612	40263347005	EPA 200.7	405132750
03067	86	01077	230712	01	1		N	M	M	M	3.2	10.	10.	230701	230717	40265075005	EPA 200.7	405132750
03067	86	01077	230816	01	1		N	M	M	M	3.2	10.	10.	230801	230821	AE68561	EPA 200.7	241329000
03067	86	01077	230920	01	1		N	M	M	M	3.2	10.	10.	230901	230925	AE69149	EPA 200.7	241329000
03067	86	01092	221025	01	1		N	M	M	M	11.6	38.6628	38.6628	221001		AE63600	EPA 200.7	241329000
03067	86	01092	230607	01	1		N	M	M	M	11.6	40.	40.	230601	230612	40263347005	EPA 200.7	405132750
03067	86	01092	230712	01	1		N	M	M	M	11.6	40.	40.	230701	230717	40265075005	EPA 200.7	405132750
03067	86	01092	230816	01	1		N	M	M	M	11.6	40.	40.	230801	230821	AE68561	EPA 200.7	241329000
03067	86	01092	230920	01	1		N	M	M	M	11.6	40.	40.	230901	230925	AE69149	EPA 200.7	241329000
03067	86	01097	160218	01	1		N	M	M	M	0.066	0.22	0.22	160201		40128408005	EPA 6020A	241329000
03067	86	01097	160405	01	1		N	M	M	M	0.034	0.1133	0.1133	160401		40130257006	EPA 6020A	241329000
03067	86	01097	160615	01	1		N	M	M	M	0.073	0.2433	0.2433	160601		40133877001	EPA 6020	241329000
03067	86	01097	160810	01	1		N	M	M	M	0.073	0.2433	0.2433	160801		40136543001	EPA 6020	241329000
03067	86	01097	161005	01	1		N	M	M	M	0.073	0.2433	0.2433	161001		40139741006	EPA 6020	241329000
03067	86	01097	161220	01	1	0.27	M	M	M	0.073	0.2433	0.2433	161201		40143755001	EPA 6020	241329000	
03067	86	01097	170310	01	1		N	M	M	M	0.073	0.2433	0.2433	170301		40146662006	EPA 6020	241329000
03067	86	01097	170602	01	1		N	M	M	M	0.15	0.5	0.5	170601		40151013006	EPA 200.8	241329000
03067	86	01132	160218	01	1	0.001	M	M	M	0.0001	0.0004	0.0004	160201		40128408005	EPA 6020A	241329000	
03067	86	01132	160405	01	1	0.00062	M	M	M	0.0001	0.0002	0.0002	160401		40130257006	EPA 6020A	241329000	
03067	86	01132	160615	01	1	0.00063	M	M	M	0.0001	0.0004	0.0004	160601		40133877001	EPA 6020	241329000	
03067	86	01132	160810	01	1	0.0008	M	M	M	0.0001	0.0004	0.0004	160801		40136543001	EPA 6020	241329000	
03067	86	01132	161005	01	1	0.00052	M	M	M	0.0001	0.0004	0.0004	161001		40139741006	EPA 6020	241329000	
03067	86	01132	161220	01	1	0.001	M	M	M	0.0001	0.0004	0.0004	161201		40143755001	EPA 6020	241329000	
03067	86	01132	170310	01	1	0.00071	M	M	M	0.0001	0.0004	0.0004	170301		40146662006	EPA 6020	241329000	
03067	86	01132	170602	01	1	0.00054	M	M	M	0.0001	0.0005	0.0005	170601		40151013006	EPA 200.8	241329000	
03067	86	01147	160218	01	1	0.31	M	M	M	0.16	0.5333	0.5333	160201		40128408005	EPA 6020A	241329000	
03067	86	01147	160405	01	1	0.21	M	M	M	0.12	0.4	0.4	160401		40130257006	EPA 6020A	241329000	
03067	86	01147	160615	01	1	0.25	M	M	M	0.21	0.6999	0.6999	160601		40133877001	EPA 6020	241329000	
03067	86	01147	160810	01	1		N	M	M	M	0.21	0.6999	0.6999	160801		40136543001	EPA 6020	241329000
03067	86	01147	161005	01	1	0.21	M	M	M	0.21	0.6999	0.6999	161001		40139741006	EPA 6020	241329000	
03067	86	01147	161220	01	1	0.41	M	M	M	0.21	0.6999	0.6999	161201		40143755001	EPA 6020	241329000	
03067	86	01147	170310	01	1		N	M	M	M	0.21	0.6999	0.6999	170301		40146662006	EPA 6020	241329000
03067	86	01147	170602	01	1		N	M	M	M	0.32	1.0666	1.0666	170601		40151013006	EPA 200.8	241329000
03067	86	04189	160219	01	1	1189.33	M	M	M	0.	0.	0.	160201		LS-107	Calculated	241329000	
03067	86	04189	160411	01	1	1189.17	M	M	M	0.	0.	0.	160401		LS-107	Calculated	241329000	
03067	86	04189	160615	01	1	1188.98	M	M	M	0.	0.	0.	160601		LS-107	Calculated	241329000	
03067	86	04189	160803	01	1	1188.48	M	M	M	0.	0.	0.	160801		LS-107	Calculated	241329000	
03067	86	04189	161005	01	1	1188.49	M	M	M	0.	0.	0.	161001		LS-107	Calculated	241329000	

03067	86	04189	161220	01	1	1188.25	M	M	M	0.	0.	0.	161201	LS-107	Calculated	241329000	
03067	86	04189	170310	01	1	1188.94	M	M	M	0.	0.	0.	170301	LS-107	Calculated	241329000	
03067	86	04189	170602	01	1	1188.86	M	M	M	0.	0.	0.	170601	LS-107	Calculated	241329000	
03067	86	04189	180426	01	1	1189.17	M	M	M	0.	0.	0.	180401	40168127006	Calculated	241329000	
03067	86	04189	181025	01	1	1188.99	M	M	M	0.	0.	0.	181001	AE31426	calculated	241329000	
03067	86	04189	190424	01	1	1189.37	M	M	M	0.	0.	0.	190401	AE36964	calculated	241329000	
03067	86	04189	191024	01	1	1189.19	M	M	M	0.	0.	0.	191001	AE41534	calculated	241329000	
03067	86	04189	200414	01	1	1189.27	M	M	M	0.	0.	0.	200401	AE45282	calculated	241329000	
03067	86	04189	200901	01	1	1188.02	M	M	M	0.	0.	0.	200901	AE48240	calculated	241329000	
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03067	86	71900	170602	01	1		N	M	M	M	0.13	0.4333	0.4333	170601	40151013006	EPA 245.1	241329000

**WESTON DISPOSAL SITE NO. 3 ASH LANDFILL,
LICENSE NO. 3067**

APPROVAL CONDITIONS SUMMARY

Cond. No.	Description	Condition Type	Status	Comments
December 11, 2014 - Plan of Operation Approval Site No. 3 Expansion				
1	The capacity of this facility shall not exceed its design volume of 4,075,500 cubic yards.	General	Active	
2	All aspects of construction, operation, monitoring and closure of the landfill shall be performed in accordance with the October 20, 1986 Plan of Operation and subsequent plan modifications where not superseded by subsequent approvals, the Plan of Operation for the horizontal and vertical expansion, the requirements of chs. NR 500 to 590, Wis. Adm. Code, and the conditions of this approval. In the case of any discrepancies between the approval conditions and the respective Plan of Operations and their associated plan sheets, the approval conditions shall take precedence.	General	Superseded	Superseded by the 12/21/16 approval
3	Any proposed changes to the plan or this approval shall be presented to the Department. If the changes are compatible with the desired performance of this landfill, as determined by the Department, an addendum will be added to this approval accepting those changes. Written Department approval is necessary prior to implementing any changes with the exception of minor field modifications that are documented in accordance with NR 516.04(3)(d), Wis. Adm. Code. All field modifications shall be discussed with the Department prior to implementation. Other changes may be handled as expedited plan modifications under s. NR 514.09, Wis. Adm. Code as appropriate.	General	Active	
4	The department shall have the right of unannounced entry to the WPSC WDS3 facility for inspection purposes.	General	Active	
5	Documentation of the Department's approval for the Highway II Clay borrow source shall be submitted to the Department within 90 days of this approval.	General	Inactive	Completed
6	The leachate collection lines shall be cleaned annually and after any construction events where the liner or alterations to the leachate collection system have occurred.	Operations	Active	
7	The secondary containment system for the leachate collection tank shall be checked monthly.	Operations	Active	
8	<p>WPSC shall notify the Department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events, listed below, for the purpose of allowing the Department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the Department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below for Phases 1-9:</p> <p>(Liner)</p> <ul style="list-style-type: none"> ● Sub-base & Clay Soil ● Geomembrane installation ● Leachate collection system ● Drainage blanket <p>(Capping)</p> <ul style="list-style-type: none"> ● Grading Layer & Barrier Placement Soil Placement ● GCL, Geomembrane Installation ● Geocomposite Drainage Components Layer ● Rooting zone & Topsoil 	Operations	Active	
9	Proof of financial responsibility for closure and long term care shall be provided within 45 days of the date of this approval, in accordance with ch. NR 520, Wis. Adm. Code. Proof of financial responsibility shall be established using the approved costs contained in the attached summary document.	Financial Responsibility	Inactive	Completed
10	If partial clay liner is constructed prior to freeze up, the completed and tested part of the clay liner shall be covered by a minimum one foot of compacted protective clay (no testing required). In the following spring, at least the upper six inches of the protective clay layer shall be removed and the upper foot of the completed clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the upper three inches of the completed clay liner and the remaining protective clay layer shall be scarified and re-compacted. If the tests do not meet compaction specifications then the entire lift of protective clay and at least the upper four inches of the clay liner shall be removed and the second foot of the clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the remaining eight inches of the upper foot of the clay liner shall be scarified and re-compacted. If the tests do not meet compaction specifications than the procedure shall be repeated for the remaining depth of clay liner until compaction specifications are met.	Construction	Active	

**WESTON DISPOSAL SITE NO. 3 ASH LANDFILL,
LICENSE NO. 3067**

APPROVAL CONDITIONS SUMMARY

Cond. No.	Description	Condition Type	Status	Comments
11	Conformance sampling and testing shall be conducted on the GCL delivered on site and used in construction. Sampling shall be conducted by the quality assurance engineer or qualified technician. Laboratory testing shall be performed at a laboratory not affiliated with the quality control testing. Manufacturer testing performed on the GCL materials delivered to the facility may be submitted in place of the conformance testing, provided the testing was performed at the minimum frequency stated in NR 516.07(2m), Wis. Adm. Code.	Construction	Active	
12	Placement and testing of the two-foot soil barrier layer below the GCL shall meet the minimum requirements: a. The barrier layer shall consist of a fine-grained soil or a well-graded sandy soil with fines, and meeting the criteria for USCS soil types ML, CL, CH, SM, or SC or dual-symbol classification of these soils, with at least 40% by weight passing the P200 sieve size. The upper one-foot shall have a maximum particle size of one inch and the lower one-foot shall have a maximum particle size of two inches. b. Compacted in maximum one-foot lifts using footed compaction equipment with feet that penetrate the entire lift of soil. Each lift shall be disked or otherwise mechanically processed prior to compaction to break up clods and allow for moisture content adjustment. Clod size shall be not greater than 4-inches. c. A sufficient number of passes of the compaction equipment shall be made over each lift to ensure complete remolding of the soil. All compaction equipment utilized shall have a minimum static weight of 30,000 pounds. d. Compacted to at least 90% modified Proctor density or 95% standard Proctor density or greater at a moisture content at or wet of optimum. e. Dry density and moisture tests in accordance with s. NR 516.07(1)(a), Wis. Adm. Code. f. Moisture-density curves and grain size in accordance with s. NR 516.07(1)(b), Wis. Adm. Code. g. A minimum of one undisturbed sample for each acre or less for every one-foot thickness of soil barrier layer placement shall be retrieved and analyzed for grain size distribution through the #200 sieve, moisture content and dry density.	Construction	Superseded	Superseded by Condition 1 of the 9/15/17 approval
13	WPSC shall submit to the Department a Sampling Plan to document the removal of the coal combustion wastes from the existing landfill. The plan shall be submitted prior to reconstruction the area to the new elevations and design standards approved herein.	Design	Inactive	Completed
14	All previous environmental monitoring requirements are rescinded and replaced with the following: WPSC shall perform environmental monitoring as specified in the attached Environmental Monitoring Tables 1 to 4, or as modified by Department approval.	Environmental Monitoring	Active	
15	The PALs and Enforcement Standards (ESs) for all substances not listed in Table A and B shall be as specified in ch. NR 140, Wis. Adm. Code, or as specified in other appropriate plan modification approvals for the facility.	Environmental Monitoring	Active	
16	Within 60 days after all the necessary rounds of suitable groundwater sampling data are received from the laboratory, WPSC shall submit an evaluation of the need for exemptions from ch. NR 140, Wis. Adm. Code, groundwater quality standards and if necessary, shall propose the established of ACLs for each of the following: a. Manganese at wells LS-100P, LS-101, LS-102P, LS-103, and LS-105, for which a minimum of four (4) rounds of suitable monitoring data b. Arsenic at well LS-105, for which a minimum of two (2) additional rounds of suitable monitoring data are needed.	Environmental Monitoring	Inactive	Completed
March 24, 2015 - Plan of Operation Modification Approval for the Somers Clay Borrow Site				
1	WPSC shall have a geologist, geological engineer or soils technician at the clay borrow source at all times that the clay is being excavated to identify the liner quality clay.	Construction	Active	
2	WPSC shall construct and document the clay liner and cap in accordance with ch. NR 516, Wis. Adm. Code	Construction	Active	
3	WPSC shall inform the Department's environmental engineer assigned to this project a minimum of one week prior to beginning each excavation phase at the clay borrow source and following restoration of each section of the clay borrow source in order to allow a Department representative to observe the work. WPSC shall pay a fee to the Department for each required inspection in accordance with the rules in effect at the time of the inspection. WPSC shall pay the inspection fees at the time the construction documentation is submitted to the Department for review.	Notification	Active	

**WESTON DISPOSAL SITE NO. 3 ASH LANDFILL,
LICENSE NO. 3067**

APPROVAL CONDITIONS SUMMARY

Cond. No.	Description	Condition Type	Status	Comments
August 27, 2015 - Plan of Operation Modification Approval for the Relocation of the Landfill Footprint				
December 21, 2016 - Plan of Operation Modification to Relocate Landfill Footprint				
1	The following approval conditions are rescinded: October 20, 1986 conditions 1-49, February 13, 1990 condition 1, December 5, 1990 conditions 1-5, December 18, 1990 conditions 1-3, August 21, 1991, September 3, 1992, July 23, 1993 conditions 1-3, September 26, 1996, December 12, 1997 conditions 1-2, September 20, 2004 conditions 1-2, March 9, 2005, June 30, 2008, and May 21, 2009 conditions 1-3. The above listed conditions are replaced by applicable conditions in the December 11, 2014, plan of operation approval.	General	Active	
2	Conditions 1 and 2 of the May 30, 1990 approval for the Siem borrow site are rescinded and replaced with the following: a. Areas in the borrow source where the clay is less than 2 feet thick shall not be used in the construction of the cap or liner at the Legner Ash Disposal Site. b. WPSC shall have a geologist, geological engineer or soil technician at the clay borrow source at all times that clay is being excavated to identify the liner quality clay. c. WPSC shall construct and document the clay liner and cap in accordance with ch. NR 516, Wis. Adm. Code. d. WPSC shall inform the department's environmental engineer assigned to this project a minimum of one week prior to beginning each excavation phase at the clay borrow source and following restoration of each section of the clay borrow source in order to allow a department representative to observe the work. WPSC shall pay a fee to the department for each required inspection in accordance with the rules in effect at the time of the inspection. WPSC shall pay the inspection fees at the time the construction documentation is submitted to the department for review.	General	Active	
3	Condition 2 of the December 11, 2014 approval is rescinded and replaced with the following: All aspects of construction and operation of the landfill shall be performed in accordance with the plan of operation, the requirements of chs. NR 500 to 538, Wis. Adm. Code and the conditions of approval. In the case of any discrepancies between the approval conditions and the plan of operation, the approval conditions shall take precedence.	General	Active	
4	The department waives the requirement of NR 506.07(3)(b), Wis. Adm. Code for a frost protection layer in Cell 1 for the 2016/2017 season. WPSC shall place at least 2 feet of approved waste or an alternate approved means of frost protection on Cell base liner prior to December 1, 2017, unless WPSC provides justification acceptable to the department that exposure to additional freeze-thaw cycles will not be detrimental to the performance of the liner. If WPSC chooses to submit a request for additional extension to the date of frost protection layer completion, this request will be in the form of a plan of operation modification. In the absence of an approved extension, those portions of the base liner or lower 10 feet of side slopes not covered with a frost protection material by December 1, 2017, shall be investigated for density and effects from freeze-thaw as specified by the department and shall be repaired and recertified during the next construction season, prior to waste placement per NR 506.07(3)(b), Wis. Adm. Code.	Operation	Superseded	Superseded by 9/15/17 approval
September 15, 2017 - Plan of Operation Modification for Frost Protection Layer				
1	Condition 12 of the December 11, 2014 approval is rescinded. Section NR 504.06(7), Wis. Adm. Code contains the specifications and requirements for composite lined landfills using GCLs.	General	Code Req.	
2	Condition 4 of the December 21, 2016, approval is rescinded and replaced with the following: The department waives the requirement of s. NR 506.07(3)(b), Wis. Adm. Code for a frost protection layer in Cell 1 for 5 years. WPSC shall place at least 2 feet of approved waste or an alternate approved means of frost protection on the Cell base liner prior to December 1, 2022 unless WPSC provides justification acceptable to the department that exposure to additional freeze-thaw cycles will not be detrimental to the performance of the liner. If WPSC chooses to submit a request for additional extension to the date of frost protection layer completion, this request will be in the form of a plan of operation modification. In the absence of an approved extension, those portions of the base liner or lower 10 feet of side slopes not covered with a frost protection material by December 1, 2022, shall be investigated for density and effects from freeze-thaw as specified by the department and shall be repaired and recertified during the next construction season, prior to waste placement per s. NR 506.07(3)(b), Wis. Adm. Code.	General	Inactive	Completed
3	Prior to placing a frost protection layer in the year that an increase in hydraulic conductivity of the GCL is observed, WPSC shall evaluate the condition and integrity of the liner system GCL and geomembrane. The evaluation shall be reported to the department with recommendations for repair or replacement, as appropriate. The department may require repair or replacement if the condition of the liner does not meet the requirements for the landfill or if it is no longer protective of groundwater.	Monitoring	Inactive	Completed

**WESTON DISPOSAL SITE NO. 3 ASH LANDFILL,
LICENSE NO. 3067**

APPROVAL CONDITIONS SUMMARY

Cond. No.	Description	Condition Type	Status	Comments
4	WPSC shall submit an annual report by March 1 of each year until this waiver ends on December 1, 2022. The annual report shall include the following for the preceding year. a. A certification statement by a professional engineer. b. A discussion of: i. The landfill liner condition, ii. The drainage layer condition, iii. The gradient control outlet inspections, iv. Any maintenance or repairs performed, and v. Freeze-thaw cycling events based on temperature readings. c. The data for i. GCL hydraulic conductivity laboratory test results, ii. Drainage layer survey point results, and iii. Landfill liner system temperature readings. d. In the year that repairs are made to the liner components where samples are collected, provide documentation demonstrating the repairs were made in accordance with the construction quality assurance plan and applicable code requirements.	Submittal	Inactive	Completed
April 13, 2018 - Plan of Operation Modification Approval for CQA Plan Revision				
1	WPSC shall provide proctor curves, hydraulic conductivity data and target compaction zone when electing to use fly ash in the final cover. This information shall be submitted to the department prior to the construction of the fly ash layer.	Construction and Submittal	Inactive	Fly ash no longer allowed to be used in the final cover.

Revised: September 5, 2023

Active	Current condition being followed for active landfill
Inactive	Condition is inactive or completed
Superseded	Condition was changed by a new Approval
Code Req.	Condition is a replica of the current code and is redundant



Consulting
Engineers and
Scientists

Plan of Operation Modification
Wisconsin Public Service Corporation
Weston Disposal Site No. 3

Town of Knowlton, Wisconsin

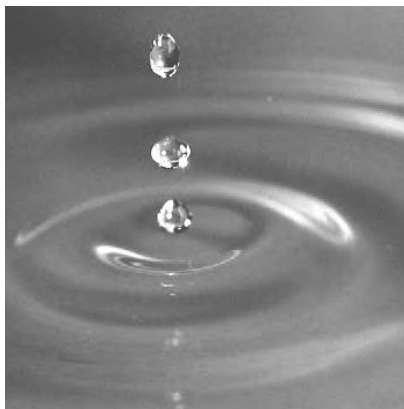
Submitted to:

WEC Energy Group
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Submitted by:


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3159 Voyager Drive
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920.455.8200

September 29, 2023
Project 2203724





Andrew J. Schwoerer, P.G.
Project Professional



John M. Trast, P.E., D.GE
Vice President/Senior Waste
Management Leader

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- G. Floodplains Demonstration
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- K. Run-on and Run-off Control Plan
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- N. Construction Quality Assurance Plan
- O. Environmental Sampling and Analysis Plan

AJS:cah

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1. Engineer Certification

Professional Engineer Certification Statement – NR 500.05(4)(a)

"I, John M. Trast, P.E., D.GE, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 500 to 538, Wis. Adm. Code."



John M. Trast, P.E., D.GE

Professional Engineer License No. 31792

2. Introduction and Site History

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule to regulate disposal and beneficial use of Coal Combustion Residual (CCR) generated by electric utilities and independent power producers as a solid waste under Subtitle D of the Resource Conservation and Recovery Act (RCRA) in the federal register, 40 CFR 257 Subpart D (CCR Rule). In accordance with the CCR Rule, any CCR surface impoundment or landfill that was actively receiving CCR on the effective date of the CCR Rule (October 19, 2015) was deemed to be an “Existing CCR Unit”. As a result, Wisconsin Public Service Corporation (WPSC) identified the Weston Disposal Site No. 3 (WDS3), (Wisconsin Department of Natural Resources [WDNR] License No. 3067) located in the Town of Knowlton, Marathon County, Wisconsin, as an existing CCR Landfill.

The WDS3 landfill was originally permitted on October 20, 1986, with the issuance of a Conditional Plan of Operation Approval. The facility was licensed and approved as a 35-acre, 8-cell facility with a design capacity of 873,000 cubic yards (cy). Cell 1 was constructed and placed into operation with an approval on December 18, 1990, but was only partially filled and remained inactive due to WPSC’s beneficial reuse program. On December 11, 2014, a Conditional Plan of Operation was approved by the WDNR for the vertical and horizontal expansion of WDS3 landfill for an additional 22.6 acres and 3,202,000 cy of design capacity that required exhuming all waste in Cell 1. The current facility is licensed and approved as a 57.6-acre; 4,075,500 cy landfill divided into nine sequential cells. The WDS3 landfill is permitted to receive non-hazardous coal combustion by-products and associated wastes from the following generating locations:

Generating Locations and Waste Streams

Location	Waste Stream
WPSC Weston Generating Station	Coal combustion by-products (fly and bottom ash) Blast grit from electrostatic precipitator cleaning FGD by-products (filter cake and off-spec gypsum) Dewatered wastewater and water treatment plant solids
WPSC Pulliam Power Plant	Coal combustion by-products (fly and bottom ash, mill rejects and all coal combustion by-products from Pulliam that may have been beneficially used or disposed in the Pulliam Landfill) Dewatered wastewater and water treatment plant solids

In addition to the proposed generating locations and waste streams listed above, WPSC requests approval to accept coal combustion by-products and associated waste from any other WPSC landfill or location where coal combustion by-products from WPSC may have been disposed or beneficially used.

Cells 1 and 2, a new leachate forcemain, storage tank, and leachate load-out system were constructed in 2015 and approved by the WDNR on April 22, 2016. Cell 2 was placed into service on June 27, 2016. The first phase of partial final cover was constructed over 2.5 acres of Cell 2 in 2016 and was approved by the WDNR on April 13, 2018. Additionally, a Plan of Operation Modification Approval was issued by the WDNR on April 13, 2018, addressing changes to the Construction Quality Assurance (CQA) Plan and incorporating a testing program for the beneficial reuse of fly ash used in the final cover system. A second phase of partial final cover was constructed over 1.05 acres of the Cell 2 in 2020 and was approved by the WDNR on March 3, 2021. Cells 3 through 9 are unconstructed and have a permitted area of 42.5 acres and a design airspace capacity of 3,407,600 cy.

On August 1, 2022, the WDNR updated NR 500 of the Wisconsin Administrative Code (Wis. Adm. Code) to include changes to new and existing Coal Combustion Residual (CCR) Landfills in the State of Wisconsin. As required in the new NR 514.045, an updated Plan of Operation Modification must be prepared for all new and existing CCR Landfills, including all future phases, and submitted for initial permitting by February 1, 2023. The required plan was submitted in accordance with the regulations and this Plan of Operation Modification address comments received from the WDNR in April 2023.

Permitting requirements submitted with the Plan of Operation Modification as outlined in NR 514.045(1) include: Professional Engineer certification [NR 500.05], performance standard demonstrations [NR 504.04(04)], locational criteria demonstrations [NR 504.04(3)], CCR landfill design [NR 504.10], landfill operational plans [NR 514.07(10)], and a CCR groundwater monitoring system and updated sampling plan [(NR 507.15(3))].

This Plan of Operation Modification for WDS3 landfill is being submitted to comply with the updated Wis. Adm. Code for new or existing CCR Landfills in the State of Wisconsin in accordance with NR 514.045. Included in this submittal are the requirements outlined in NR 514.045(1), the plan of operation for the active WDS3 landfill, a drawing set featuring the base liner, final cover, phasing waste grade details, and the leachate collection system, and a separate attachment demonstrating the hydrogeology, environmental monitoring system, groundwater, and sampling plan in accordance with NR 507.15(3).

3. Performance Standard Demonstrations

3.1 Wetlands

Section NR 504.04(4)(a) of the Wis. Adm. Code states, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill if there is a reasonable probability that the landfill will cause a significant adverse impact on wetlands as provided in ch. NR 103.” The following sources, attached in Appendix A, were utilized to determine if the WDS3 landfill is located within a wetland:

- WDNR wetland map
- National Wetlands Inventory (NWI) map
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey map
- Sheet 24 of 24 – Wetland, Sedimentation Basin, and Phase 1 Landfill Excavation Limits, TRC, March 2016

According to the WDNR and NWI maps, the existing waste footprint of the WDS3 landfill is not located in a wetland. Two freshwater emergent wetlands are mapped northwest and southwest of the existing landfill footprint, within the permitted expansion area. These wetlands were removed during construction of Cells 1 and 2 in 2015. A detailed description of the removal of these two wetlands is provided in the March 2016, “Cell 1 and Cell 2 Liner Construction Documentation Report”, approved by the WDNR on April 22, 2016. The limits of wetland removal are included in the TRC drawing Sheet 24 in Appendix A. Additionally, the wetland removal permit issued by the United States Army Corps of Engineers and the WDNR in the March 2014, “Weston Disposal Site No. 3 Expansion Plan of Operation” is included in Appendix A for the department’s convenience. Collectively, these satisfy the requirements of NR 504.04(4)(a).

3.2 Endangered or Threatened Species

Section NR 504.04 (4)(b) of the Wis. Adm. Code states, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill if there is a reasonable probability that the landfill will cause a take of an endangered or threatened species in accordance with s. 29.604.” Additionally, section NR 514.045(1)(e) states that the Plan of Operation Modification must, “demonstrate that the facility or practices may not result in the destruction or adverse modifications of the critical habitat of endangered or threatened species as identified under s. NR 27.03(1).” The following sources, attached in Appendix B,

was utilized to determine if the WDS3 landfill could cause a take or results in the destruction or modification of a critical habitat:

- WDNR Natural Heritage Inventory (NHI) Endangered Resources Review
- Endangered Resources Review for the Proposed WDS3 Plan of Operation Modification, Marathon County (ER Log #23-628)

According to the NHI preliminary review, the site overlaps the Karner Blue Butterfly and Rusty Patched Bumble Bee high potential zones. The final cover and final site restoration, specifically the seeding, should take into consideration additional improvements to make the site an attractive habitat for native pollinators. The NHI Endangered Resources also requested that an Endangered Resources Review be performed in the project vicinity to list any endangered resources. GEI performed an Endangered Resources Review in August 2023 and identified two endangered species of turtles in the project area. The Endangered Resources Review was approved by the WDNR on August 21, 2023 and no further actions were required or recommended based on the presence of the two endangered turtles. The NHI preliminary review and the Endangered Resources Review satisfies the requirements of NR 504.04 (4)(b) and NR 514.045(1)(e).

3.3 Surface Water

Section NR 504.04 (4)(c) of the Wis. Adm. Code states, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill if there is a reasonable probability that the landfill will cause a detrimental effect on any surface water.” The following sources, presented in Appendix C, were utilized to determine if the WDS3 Landfill posed as a potential detriment to any surface water:

- WDNR Surface Water Data Viewer Map
- Sheet 24 of 24 – Wetland, Sedimentation Basin, and Phase 1 Landfill Excavation Limits, Wisconsin Public Service Corporation Weston Disposal Site No. 3, Cell 1 and Cell 2 Liner Construction Documentation, TRC, March 2016
- Drawing No. C-1 – Frost Protection Layer, WPS Weston Disposal Site No. 3 Cell 1 Phasing, GEI Consultants, July 12, 2021
- Figure 1 – Run-Off Stormwater Flow Diagram, Run-on and Run-off Control Plan, Weston Disposal Site No. 3, GEI Consultants, October 2021
- Routing Diagram for Cell 2 Runoff, Weston Disposal Site No. 3, GEI Consultants, October 8, 2021
- Drawing PM-5 – Base Grades/Leachate Collection System, Weston Disposal Site No. 3 Expansion Plan of Operation Modification, dated January 27, 2023

The WDNR Surface Water Data Viewer Map attached in Appendix C features two ‘lakes and open waters’ in the landfill footprint. One ‘lake and open water’ feature is located in the existing Cell 2, while the other ‘lake and open water’ feature is southeast of Cell 2, south of the existing Storm Water Basin 3. The presence of these ‘lakes and open water’ features in the WDNR Surface Water Data Viewer can be explained utilizing ‘Sheet 24 of 24 - Wetland, Sedimentation Basin, and Phase 1 Landfill Excavation Limits’, from the Cell 1 and Cell 2 Liner Construction Documentation, dated March 2016. When comparing the WDNR Surface Water Data Viewer Map and Sheet 24, the two ‘lakes and open water’ features are areas that were defined during the construction of Cell 1 and Cell 2. The ‘lake and open water’ feature located within existing Cell 2 was the old Sedimentation Basin that was excavated to construct the base liner of Cell 2 and is erroneously labeled in the WDNR Surface Water Data Viewer Map as an existing feature. The ‘lake and open water’ feature southeast of Cell 2 is a wetland that was delineated in 2011 as part of the Feasibility Study and is outside of the limits of clearing and grubbing during development of the landfill expansion in 2015. This wetland extends west along the southern limit of the landfill and was preserved during site development of the WDS3 Landfill Expansion, as shown on Sheet 24 of Appendix C. The WDNR Surface Water Data Viewer erroneously characterizes this wetland as a ‘lake and open water’ feature.

The nearest water surface is Johnson Creek (WBIC-1424900), approximately 2,800 feet to the southeast of the Landfill. Johnson Creek is considered a warm water fishery and is not classified as a trout stream. As shown on Drawing No. C-1 in Appendix C, Cells 1 and 2 have permanent perimeter berms that were constructed on the east and south sides of the landfill to direct stormwater run-on to perimeter stormwater ditches that drain into Stormwater Basin No. 3, east of the landfill. Temporary intercell berms on the west and north sides of the Cell 1 and the west sides of Cell 2 redirect stormwater away from the active area. The perimeter stormwater ditches, and the stormwater basins are designed for a 24-hour, 25-year precipitation event.

Leachate generated in the active areas of WDS3 are handled as contact stormwater and treated as leachate. Contact stormwater is directed towards to perimeter containment ditches on the inside of the perimeter berms and routed to a stormwater surge area along the Cell 2-3 intercell berm area, where it is allowed to infiltrate into the leachate collection system. Figure 1 and the routing diagram, found in Appendix C, illustrates how leachate is handled in the active areas of WDS3. Leachate that infiltrates into the leachate collection system collects in a sump at the low point of each cell and is pumped via an 18-inch diameter SDR 17 HDPE riser pipe to a perimeter access manhole. Leachate is then pumped from the perimeter access manhole to a transfer manhole and forcemain where it is pumped to an above ground, 100,000-gallon storage tank located northwest of the landfill. From the storage tank, leachate is pumped into haul trucks through the leachate loadout facility and either recirculated through the landfill for dust control or hauled to the Weston Power Plant for treatment. Drawing PM-5 in

Appendix C shows the locations of the leachate collection manholes, leachate transfer lines, pump station, and leachate loadout facility. Together, these satisfy the requirements of NR 504.04(4)(c).

4. Locational Criteria Demonstrations

4.1 Fault Areas

Section NR 504.04(3)(g) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of filling are or would be within 200 feet of a fault that has had displacement in the Holocene time.” According to the U.S. Geological Survey (USGS) and Illinois State Geological Survey Quaternary faults and folds database for the United States (USGS, 2022), the fault zone nearest to WDS3 with documented displacement in Holocene time (approximately 12,000 years ago to present day) is the Wabash Valley Seismic Zone, as shown in Appendix D. While active fault zones are not expressed at the surface, movement along these faults have caused seismic activity in the region during Holocene epoch.

The Wabash Valley Seismic Zone is primarily located in central and southeastern Illinois and southwestern Indiana (USGS, 2022). WDS3 approximately 530 miles north of the Wabash Valley Seismic Zone, satisfying the requirements of Section NR 504.04(3)(g).

4.2 Seismic Impact Zones

Section NR 504.04(3)(h) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of filling are or would be within seismic impacts zones.” As defined in 40 CFR § 257.53 of the Federal Code, a seismic impact zone is, “an area having two percent or greater probability that the maximum expected horizontal ground acceleration will exceed 10 percent of gravity (0.10g) in 50 years (return period of approximately 2,500 years).” The USGS Earthquake Hazard Program (EHP) and National Seismic Hazard Mapping Project (NSHMP) Unified Hazard Tool and calculations from Earthquake Hazards 201 – Technical Q&A, USGS, August 6, 2019, was utilized to calculate the annual frequency of exceedance and expected horizontal ground acceleration at WDS3 to determine if the landfill is established within a seismic impact zone. The calculations and results for the EHP and NSHMP Unified Hazard Tool return period are presented in Appendix E.

WDS3 is not located in a seismic impact zone as defined in 40 CFR §257.53 and satisfies the requirements of NR 504.04(3)(h).

4.3 Unstable Areas

Section NR 504.04(3)(i) of the Wis. Adm. Code requires, “no person may establish, construct, operate, maintain, or permit the use of property for a landfill where the limits of

filling are or would be within an unstable area.” As outlined in NR 514.045(1)(c), the following must be considered when determining whether an area is unstable:

- On-site or local soil conditions that may result in significant differential settling
- On-site or local geologic or geomorphologic features
- On-site or local human-made features or events (both surface and subsurface)

GEI considered the overburden soil type and depth, the slope of the underlying bedrock, the proximity of the site to documented karst regions, the proximity of the site to documented oil wells, and the proximity of the site to documented gas wells. A Location Restriction Demonstration was prepared on October 12, 2018, in compliance with 40 CFR 257.64, that states the WDS3 Ash Landfill is not located in an unstable area that could result in significant differential settlement or mass movement damaging the facility, as presented in Appendix F. Additionally, the AECOM Feasibility Report – Proposed Weston Disposal Site No. 3 Expansion, prepared in August 2012, provides a discussion on the unstable area determination for the site. Collectively, these satisfy the requirements of NR 514.045(1)(c).

4.4 Floodplains

Section NR 514.045(1)(d) of the Wis. Adm. Code states, *“the owner or operator of a new or existing CCR landfill must demonstrate that the facility or practices near floodplains may not restrict the flow of the regional flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife, or land and water resources.”* The following sources, presented in Appendix G, were utilized to determine if WDS3 is within a floodplain:

- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer Map
- WDNR Surface Water Data Viewer Map – Dam and Floodplain

The WDS3 waste footprint is outside of the floodplain and is in an area of minimal flood hazard as shown in Appendix G. Collectively these satisfy the requirements of NR 514.045(1)(d).

4.5 Aquifer Separation

Section NR 514.045(1)(f) of the Wis. Adm. Code states that the Plan of Operation Modification shall include, *“a demonstration that the CCR landfill design meets requirements under s. NR 514.12,”* which includes rule NR 504.12(3)(b) which states, *“a new CCR landfill or lateral expansion of a CCR landfill shall be designed and constructed with a subbase grade that is located no less than 5 feet above the upper limit of the uppermost aquifer, or shall demonstrate that there will not be an intermittent recurring or sustain hydraulic connection between any portion of the base of the CCR landfill and the uppermost*

aquifer due to normal fluctuations in groundwater elevations, including the seasonal high water table.”

Ramboll Group (Ramboll) has performed the CCR groundwater monitoring at WDS3 and have provided their Environmental Sampling and Analysis Plan in Appendix O. The landfill is designed as a gradient controlled composite lined landfill. The subbase gradient control system is designed to limit the rise of groundwater into the clay liner system and prevent an intermittent recurring or sustain hydraulic connection between any portion of the base of the landfill and the uppermost aquifer due to normal fluctuations in groundwater elevations. Details of the gradient control system are included in Drawing PM-21 and discussed in Section 5.3. Collectively, these satisfy conditions of NR 514.045(1)(f) and NR 514.12.

5. Plan of Operation

5.1 General

The WPSC Weston Disposal Site No. 3 (WDS3) was originally permitted on October 20, 1986, with the issuance of a Conditional Plan of Operation Approval. The facility was licensed and approved as a 35-acre, 8-cell facility with a design capacity of 873,000 cy. On December 11, 2014, a Conditional Plan of Operation was approved by the WDNR for the vertical and horizontal expansion of WDS3 for an additional 22.6 acres and 3,202,000 cy of design capacity that required exhuming all waste in Cell 1. The current facility is licensed and approved as a 57.6-acre, 4,075,500 cy landfill divided into nine sequential cells. The site is designed to accept CCRs generated at the Weston Generating Station and Pulliam Power Plant, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials. The site does not accept hazardous wastes or municipal solid wastes.

The WDS3 Landfill expansion is designed as a zone of saturation landfill, as separation between the seasonal high groundwater table and top of subbase grades can be less than 5 feet in select areas of the permitted area. An exemption to NR 504.06(2)(b) was granted by the WDNR in the December 11, 2014, Conditional Plan of Operation Approval to reduce the 10-foot separation distance between the seasonal high groundwater table and the bottom of the clay liner. In lieu of the 10-foot separation distance to the groundwater table, a gradient control system was constructed below the Cell 1 and Cell 2 base liner systems to prevent groundwater from contacting the clay liner and entering the fill area. Future cell construction at WDS3 will also incorporate the gradient control system to convey occurrences of high groundwater away from the landfill.

The December 11, 2014, Conditional Plan of Operation Approval accepted the use of fly ash in lieu of a clay layer in the final cover system. Changes to the CQA Plan which incorporated a testing program for the beneficial reuse of fly ash in the final cover layer was approved by the WDNR on April 13, 2018, with a Conditional Plan of Operation Modification. Two phases of partial final cover over the south and east perimeter slopes of Cell 2, the first in 2016 and the second in 2020, incorporated the approved compacted fly ash into the final cover system.

5.2 Subbase Grades

An exemption to NR 504.06(2)(c) was granted by the WDNR in the December 11, 2014, Conditional Plan of Operation Approval to reduce the 10-foot separation distance between the top of bedrock surface and the bottom of clay liner. In some areas of the permitted

landfill area, the top of bedrock surface can be less than 5 feet from the bottom of the composite liner.

Subbase grade activities for the unconstructed cells of WDS3 will consist of the construction and testing of the perimeter berms, minimal excavating to reach subbase grades and maintain as much separation to the top of bedrock as possible, undercutting the gradient control system and leachate collection system lines, and documenting subbase grades prior to construction of the gradient control system and compacted clay liner. General fill used to construct the perimeter berms will be placed in 12-inch lifts and compacted to a minimum of 90 or 95 percent of the modified or standard Proctor maximum dry density, respectively. The field testing, laboratory testing, and documentation of general fill placement will follow the requirements outlined in the CQA Plan provided in Appendix N. Subbase grades will be surveyed on a 50-foot grid pattern and at breaks and changes in grade. Subbase grade documentation and grade tolerances are included in the CQA Plan.

Excavated material removed during subbase construction will be identified and stockpiled for use as topsoil, general fill, or in the gradient control system. During excavation, stormwater drainage will be controlled through the use of temporary ditching, silt fence, straw-base and riprap check dams, diversion berms, or other erosion control measures as discussed in Section 5.3.8 and detailed on Drawings PM-22, PM-23, and PM-28.

5.3 Groundwater Gradient Control System

The groundwater gradient control system is designed to limit the rise of groundwater into the clay liner system and prevent an intermittent recurring or sustain hydraulic connection between any portion of the base of the landfill and the uppermost aquifer due to normal fluctuations in groundwater elevations.

The groundwater gradient control system consists of a 12-inch-thick layer of select granular fill placed beneath the composite liner system with a minimum hydraulic conductivity of 1.0×10^{-3} centimeters per second (cm/sec). The gradient control system extends a minimum of 25 feet from the leachate collection line, measured perpendicular. A network of perforated and solid wall 6-inch diameter SDR 11 HDPE or SCH 80 PVC drainage pipes are bedded in a 2-foot-wide collection trench filled with aggregate backfill material gravel, meeting the criteria of NR 504.06(5)(e), and wrapped in geotextile within the granular fill layer. The perforated pipe will gravity drain under the leachate collection sump where it transitions to a non-perforated pipe that extends through the perimeter berm and daylights near the toe of the outside slope. Details of the gradient control layer and piping are shown on Drawings PM-21 and PM-25.

Pipe strength calculations were submitted in the 2014 Weston Disposal Site No. 3 Expansion Plan of Operation that verify SCH 80 PVC or SDR11 HDPE pipe are adequate for the

gradient control system. The perforated pipe has 3/8-inch diameter holes, set 45 degrees from center and spaced 6 inches on center, which will be installed to face the bottom of the trench. Piping and permeability calculations were also performed to demonstrate that the geotextile, aggregate bedding, and piping perforations are appropriately sized to prevent clogging.

5.4 Base Liner System

The permitted base liner system consists of the following components, from bottom to top:

- 2-foot-thick compacted clay layer
- Geosynthetic clay liner (GCL)
- 60-mil textured HDPE geomembrane
- 12-ounce per square yard (oz/sy) nonwoven geotextile cushion layer placed in leachate collection pipe trenches.
- 1-foot-thick leachate collection layer

The approved base liner system, detailed on Drawing PM-21, satisfies conditions of NR 514.045(1)(f).

5.4.1 *Compacted Clay Layer*

The compacted clay liner will be constructed in accordance with NR 504.06(2), documented in accordance with NR 516, and satisfies conditions for the minimum design and construction criteria for CCR Landfills of NR 504.06(7). The compacted clay layer will be placed in 6-inch lifts and compacted to a minimum 90% of the modified Proctor maximum dry density or 95% of the standard Proctor dry density at the appropriate water content as defined in NR 504.06(2)(f)(3). The compacted clay layer will be placed and compacted to achieve a hydraulic conductivity of 1×10^{-7} cm/sec or less. Testing and monitoring of the compacted clay liner will follow the approved CQA Plan, attached as Appendix N.

The approved base liner system for the landfill was modeled using the US EPA Hydrologic Evaluation of Landfill Performance (HELP) Model, Version 3.07. The approved base liner system was modeled assuming 10 feet of ash placed in the landfill cell, an average slope of 5%, bare ground, and a slope length of 550 feet. The modified base liner was modeled assuming the same operating conditions to compare the originally permitted and modified base liner systems. The model predicted that the geomembrane and clay layer system reduced the percolation through the base liner system to 0.00025 inches per year, down from 1.29 inches per year for the original permitted base liner system. Appendix H includes HELP model calculations for the originally permitted and modified base liner system, along with liner design calculations used to calculate the leachate generation, leakage rate, interface

slope stability, and global slope stability of the base liner system. Appendix H satisfies conditions of NR 504.12(3) and NR 514.045(1)(f).

5.4.2 Geosynthetic Clay Liner

A GCL will be placed directly above the 2-foot-thick compacted clay layer in accordance with NR 504.07(4)(a)1 to 11 and Section 12 of the CQA Plan. Specifications for the materials, installation, and documentation of the GCL are outlined in the CQA Plan (Appendix N). GCL will be installed in a relaxed condition, free of wrinkles or tension. GCL panels will extend a minimum of 10 feet past the toe of the interior sideslopes. The GCL will have a minimum 6 inches of overlap on longitudinal seams and 20 inches on panel end seams. GCL patches will be placed over irregular shapes, cuts, or tears and overlapped a minimum of 12 inches. Seams will be sealed with loose bentonite granules placed at a rate of one quarter pound per linear foot. The GCL will be covered with geomembrane on the same day that it is unpacked and placed and anchored with perimeter anchor trenches.

The GCL will be subject to manufacturer's quality control (MQC) testing prior to shipment. The material will be specified to meet the physical properties and the manufacturer will be required to provide the minimum test results as required by Table 12-1 in the CQA Plan (Appendix N.)

As required in 504.12(3)(a)5, a liner that utilizes a GCL and soil barrier layer shall be designed to have a liquid flow rate no greater than the liquid flow rate through 2 feet of compacted soil with a hydraulic conductivity of 1×10^{-7} cm/sec. Appendix H includes the liner design calculations used to calculate the hydraulic conductivity and leakage rate of the base liner system.

5.4.3 Geomembrane

A 60-mil HDPE geomembrane layer will be installed above the GCL in accordance with NR 504.06 and Section 10 of the CQA Plan. Specifications for the materials, installation, and documentation of the geomembrane are outlined in the CQA Plan (Appendix N). Geomembrane panels will be positioned by suspending rolls of material with a front-end loader and unrolling the suspended material and fine positioning by hand. Care will be taken to prevent damage to the GCL during placement of the geomembrane. Geomembrane panels will extend a minimum of 10 feet past the toe of the interior sideslopes. Panels will overlap approximately 4 inches and will be fusion-welded together. At seam intersections and other repair locations, a patch will extend a minimum of 12 inches beyond the intersection or repair that is extrusion-welded into place. All seams will be non-destructively tested by air or vacuum testing. The integrity of fusion welds will be air tested, and extrusion welds will be vacuum tested. Destructive testing of seams will be performed at a frequency of one test per 500 feet of seam.

The geomembrane will be subject to manufacturer's quality control (MQC) testing prior to shipment. The material will be specified to meet the physical properties and the manufacturer will be required to provide the minimum test results as required by Table 10-1 and 10-2 in the CQA Plan (Appendix N.)

5.4.4 Geotextile Cushion Layer

A geotextile cushion layer will be installed above the 60-mil HDPE geomembrane liner within the leachate collection pipe trench and sump in accordance with Section 11 of the CQA Plan. Specifications for the materials, installation, and documentation of the geotextile cushion layer are outlined in the CQA Plan (Appendix N). The geotextile will have a minimum weight of 12 oz/sy. A double layer will be installed in the leachate sump areas as shown on Drawing PM-25.

The geotextile panels will be placed with a minimum 6-inch overlap and will be continuously sewn or thermally bonded. The geotextile will be subject to manufacturer's quality control (MQC) testing prior to shipment. The material will be specified to meet the physical properties and the manufacturer will be required to provide the minimum test results as required by Table 11-2 in the CQA Plan (Appendix N).

5.4.5 Leachate Collection System

The leachate collection system is designed to maintain less than 12 inches of leachate head on the base liner system as required by NR 504.06(5)(a). The leachate collection system will consist of a 12-inch-thick layer of select granular drainage material, a network of leachate collection and transfer pipes, sumps, cleanout pipes, perimeter access manholes, transfer manholes, a collection tank, and a load-out facility. Details of the leachate collection system components are shown on Drawings PM-24, PM-25, and PM-26.

The select granular drainage material will be a coarsely graded sand, with no more than 5% passing the No. 200 sieve as required by NR 504.06(5)(t) and having a minimum hydraulic conductivity of 1×10^{-2} cm/sec as required by NR 504.06(5)(tm). Specifications for the materials acceptance criteria, installation, and documentation of the granular drainage layer are outlined in the CQA Plan (Appendix N). As specified in NR 504.06(5)(t), a certified needle free minimum 12 oz/sy nonwoven geotextile will be installed below the granular drainage layer if the material contains gravel over ¼-inch.

The leachate collection pipes will consist of 8-inch diameter SCH 80 PVC or SDR 11 HDPE perforated pipes placed in 18-inch-deep V-trenches graded into the base liner as shown on the Drawing PM-21. The leachate collection pipes will be set at a minimum 0.5 percent grade. The V-trenches will be smooth-drum rolled prior to placement of the geomembrane to allow intimate contact between the compacted clay and the geomembrane and provide for easier installation. A minimum of 4 inches of pipe bedding material will be placed under the

pipes in the trenches. Bedding material will fill the v-trench and be mounded to a minimum of 24-inches above the pipes. The pipe bedding will meet the material specifications and will be tested as outlined in Section 7 of the CQA Plan (Appendix N). The bedding material will be a coarse, uniform aggregate designed to meet filter criteria between the granular drainage material and the perforation size in the pipes. A 12-inch-thick layer of granular drainage material will be placed above the pipes and pipe bedding.

Pipe strength calculations were submitted in the 2014 Weston Disposal Site No. 3 Expansion Plan of Operation that verify SCH 80 PVC or SDR11 HDPE pipe are adequate for the gradient control system. The perforated pipe has 3/8-inch diameter holes, set 45 degrees from center and spaced 6 inches on center which will be installed to face the bottom of the trench. Piping and permeability calculations were also performed to demonstrate that the geotextile, aggregate bedding, and piping perforations are appropriately sized to prevent clogging. The leachate collection system is designed to meet the requirements of NR 504.06(5)(g) and does not exceed 1,200 feet in length.

Perimeter cleanouts for the leachate collections pipes will be installed so that each collection pipe can be accessed from either direction. The cleanout risers will consist of non-perforated SCH 80 PVC or SDR 11 HDPE pipes that shall be installed in accordance with Detail 2 on Drawing PM-21.

The leachate collection system gravity drains to a 12-foot by 12-foot collection sump located at the low point in each cell. The subbase of the sump will be undercut to allow for the construction of the 2-foot-thick clay liner. A 1-inch-thick protective flat stock HDPE plate will be attached to the perforated leachate collection pipe at the base of each sump. Each leachate collection sump will include an 18-inch diameter SDR 17 HDPE inclined riser pipe that will house a submersible pump that are accessed through sideslope riser pipes in perimeter access manholes, as shown on Drawings PM-24 and PM-25. The bottom portion of the inclined riser pipe will be perforated and will transition to non-perforated on the perimeter slope. Leachate in the sumps will be pumped to perimeter access manholes which will be conveyed to transfer manholes and will be pumped to the leachate storage tank via forcemain. The sumps provide a pumpable volume for the submersible pumps and are sized so that the accumulation of leachate does not occur outside of the sump on the cell floor and can accommodate an annual leachate collection rate of 6 inches, including the potential of solids to build up over time. Leachate generation and sump capacity calculations from the WDS3 Expansion Plan of Operation, dated March 2014, are included in Appendix H. The pumps are controlled by a level transducer that turns the pumps on and off at preset elevations. If the sideslope riser and submersible pump system were to fail, the sumps are located along the north and south perimeter berms of the landfill and are overlaid with 2-feet of gravel fill to allow remedial access for the installation of hardware to remove leachate temporarily, in accordance with NR 504.06(5)(j)5.

Leachate forcemain piping consists of double walled, 3-inch diameter non-perforated HDPE pipe inside a 6-inch diameter HDPE pipe as shown on Detail 2 on Drawing PM-25. The forcemain sections will be pressure tested during installation prior to use in accordance with Section 13 of the CQA Plan (Appendix N). Additional conduit will be installed in the forcemain trench to run electrical wiring to power future collection sumps. The forcemain is routed through leachate transfer manholes located adjacent to each perimeter access vault en route to the leachate storage tank. The transfer manholes provide access points for inspection and maintenance of the forcemain.

A control panel will be located at each perimeter access manhole at the ground surface to monitor and control the operation of the submersible pump for each sump in the landfill. A programmable logic controller (PLC) within the control panel will monitor and display at a minimum the following information:

- Leachate level in the riser
- Four adjustable set-point levels for each riser
- Riser pump run times
- Riser pump amp meter
- Riser pump failure

The four adjustable set points for each riser are as follows: high-level alarm, riser pump on, riser pump off, and low-level alarm. Electrical power to the submersible pumps within the leachate collection sumps will be temporarily terminated if a high-level alarm occurs in the leachate collection tank indicating a maximum high liquid level. Under this condition, the power to the pumps will be restored after leachate is pumped from the collection tank to the tanker truck, and the leachate level in the tank drops below the high liquid level set point.

All alarm, pump failure, and collection tank leak detector indications will trigger an external common alarm light along with an alert sent to select personnel at WPSC. Site communication will utilize the existing phone service or cellular options from the site. Site alarms will be transmitted to a 7 day, 24 hour staffed monitoring facility using proven reliable communication technology. That technology may include hardwire, digital, or radio communication. Responses to alarms will be directed from the monitoring facility using a call out feature to dispatch crews to the site as needed. This system will require manual reset at the local control panel.

The leachate storage tank is an above ground tank with a nominal storage capacity of 100,000 gallons and is shown on Drawing PM-26. The tank provides approximately 10 days of storage capacity based on an estimated maximum daily leachate generation of

10,400 gallons per day. The leachate tank is surrounded by a reinforced concrete secondary containment structure. Rainwater collected in the secondary containment area is pumped through a dry sump and treated as leachate. The leachate holding tank has a mixing system designed to prevent freezing and to prevent solids from settling in the bottom of the tank.

The leachate loadout consists of a sloped concrete pad with a catch basin in the center to collect any spills that may occur while loading tanker trucks. The catch basin drains back to the dry sump in the secondary containment where it is pumped back into the tank. Pipes with quick connect fittings are located 3 feet above the ground to allow for a convenient direct connection to the back of tanker trucks over the loadout pad. The loadout also has a sampling port to obtain a composite leachate sample out of the system. Drawing PM-26 details the leachate loadout pad.

5.5 Operation and Development

This section outlines the operating procedures and plans currently employed at WDS3 in accordance with NR 514.045(1)(g) and NR 514.07(10). The various control measures to be implemented to ensure the operation of an efficient, nuisance-free, and environmentally sound ash disposal facility are discussed in the following sections, where applicable.

5.5.1 Hours of Operation

Normal hours for receiving waste will typically be from 6:30 a.m. to 7:00 p.m. on weekdays and 7:00 a.m. to 12:00 p.m. on Saturdays. Operational hours may be adjusted to accommodate special circumstances, such as plant outages or disruptions in CCR generation or utilization. Activities such as leachate handling may extend beyond normal hours to accommodate the operator and significant rainfall events.

5.5.2 Traffic Routing

CCR transport vehicles will enter WDS3 via a private haul road from Balsam Fir Road. The private haul road is an asphalt-paved, all-weather access road that is sufficient for two-way truck traffic. The private road will be maintained, so traffic is not interrupted by ordinary inclement weather. The vehicles used to transport ash shall be equipped with and use a tarpaulin or other suitable means to control ash dust during transport. The main entrance is gated and will be locked during nonoperational hours.

5.5.3 Lines and Grades

Permanent survey control points are shown on Drawing PM-2. Elevations are based on North American Vertical Datum 1988 (NAVD88), and coordinates will be based on the site grid, which is based on the Wisconsin State Plane Coordinate System, Central Zone. Survey

crews will provide line and grade control, as necessary, to assist operators during cell construction, ash placement, and closure construction.

5.5.4 Nuisance Control

Nuisance-free operation depends on sound maintenance policies that are practiced throughout the life of the site. The factors to be addressed for nuisance-free operation are identified in the following paragraphs.

5.5.4.1 Dust

Dust may be generated from the stripping and placement of soil material, the placement and compaction of ash, the vehicular traffic on access roads, and by wind over barren areas. Fugitive dust shall be controlled through the use of street sweepers, road grading and maintenance, and road paving. Clean water for dust suppression will be obtained from the on-site stormwater basins. Leachate will be used for dust suppression within the active landfill only.

A water wagon will be kept on site at all times during construction and waste disposal activities when weather conditions favor the generation of fugitive dust. Haul routes will be kept watered, as necessary, to prevent dusting from vehicular traffic. Ash and other CCR materials will be conditioned at the plant prior to delivery to the landfill for disposal. In the course of normal operation of the disposal site, ash will be spread and compacted as soon as possible but no later than the end of the day of deposit. Ash should be deposited in the lowest active areas of the cell and spread and compacted immediately when weather or other conditions favor fugitive dust generation and subsequent transport of the fugitive dust outside the active landfill waste limits. See Section 6.1 for a further discussion on the Fugitive Dust Control Plan, attached in Appendix J.

Trash and windblown debris are usually not associated with coal combustion by-product landfills. WPSC will be diligent in the policing of the site and removal of litter.

5.5.4.2 Odors

It is anticipated that odor will not be a problem for the coal ash landfill. In addition, a leachate collection system will be properly maintained to minimize the potential for odors. If odors become a problem in the future, WPSC will work with the WDNR to establish procedures for odor control.

5.5.4.3 Disease Vectors

Conditions unfavorable to the propagation of insects and rodents shall be maintained. Supplemental insect and rodent control measures shall be instituted when necessary.

5.5.4.4 Noise

The equipment used on site will have the proper mufflers and will be maintained in good operating condition to limit excessive objectionable noise.

5.5.4.5 Police and Fire Protection

Police, fire protection, and other emergency care services available to the site are provided primarily by WPSC, with assistance on an as-needed basis by the Town of Knowlton and/or Marathon County. Fire extinguishers will be located in site structures, site vehicles, and heavy equipment. Fire protection will also be provided by the use of on-site soils and equipment.

5.5.5 Site Access

Access to the site will be limited to authorized persons only and is controlled by gates. Per the Town Agreement, the primary access route to the site is controlled by a gate located off Balsam Fir Road entering the private road, and another gate located on the private road before entering the facility. The secondary access route is controlled by a gate located off Legner Road. The gates will be locked during nonoperational hours. Natural barriers (berms, trees, etc.) and wooded parcels surrounding the facility will also help control unauthorized access to the site. A temporary job trailer along with a visitor parking area on the all-weather access pad located next to the leachate storage tank will be provided for each construction event. Visitors are required to arrange visitation to the site through WPSC and are required to be accompanied by authorized personnel while on-site.

5.5.6 Inclement Weather

Access road and surface water drainage design and maintenance will minimize disruption to landfill operations during most wet weather. If necessary, waste placement will be temporarily halted if safe hauling or landfill operations are jeopardized by unusually wet weather.

In the event of snow cover, the edges of roadways, culverts, and monitoring wells will be marked by stakes or flags, if required, due to snow depths and plowing needs. Snow plows or other heavy equipment will be used to clear the access roads.

The dust generated as a result of dry conditions will be controlled by wetting roads with water or with commercially available compounds. Blowing ash in the active landfill cells will be suppressed with water, leachate, bottom ash, soil, or approved WDNR commercially available compound. A Fugitive Dust Control Plan is attached in Appendix J and further discussed in Section 6.1.

5.5.7 Active Area Runoff Control

During the operation and filling of the active cells of WDS3, precipitation within the active landfill is handled as contact stormwater and treated as leachate. Contact stormwater in active Cells 1 and 2 is directed to the perimeter containment ditches on the inside of the perimeter berms and routed to a stormwater surge area along the Cell 2-3 intercell berm area, where it is allowed to infiltrate into the leachate collection system. Perimeter containment ditches are temporary and are a minimum of 2 feet deep and have a 3H:1V exterior slope and a 2H:1V interior slope.

The runoff control system for the operation of WDS3 can adequately manage a 24-hour, 25-year precipitation event. An updated Runoff Control Plan was submitted in October 2021 and is attached in Appendix K. See Section 6.2 of this Plan of Operation Modification for more detail on the Runoff Control Plan.

5.5.8 Drainage and Erosion Control

Operational aspects of drainage and erosion control include proper management of surface water and maintenance of permanent drainage control facilities. The perimeter berms will limit off-site surface water from entering the landfill. Diversion berms will be used to contain runoff from the active disposal area. Minimum slopes of 1% will be used on completed ash lifts to maintain positive drainage and prevent ponding.

Permanent vegetation has been established on all phases of final cover. Annual landfill inspections by a qualified Professional Engineer in the State of Wisconsin will examine the condition of the final cover system to determine if any erosion has occurred. Any observed eroded areas will be re-graded, seeded, and fertilized, as necessary, to maintain efficient flow and operation of drainage and erosion control structures.

Clean stormwater flow from the final cover of Cell 2 is routed to a perimeter ditch and discharges into Stormwater Basin No. 3. Routine maintenance will include inspection and repair, if necessary, of the drainage ditches. Sediment and debris will be removed from drainage ditches, as necessary. The site operator will mobilize the equipment and staff as required to repair or replace damaged erosion control features as soon as possible following a storm event that causes damage.

5.5.9 Record Keeping

WPSC shall oversee the record keeping of permanent records pertinent to site operations and monitoring in accordance with NR 506.17. Records of various activities and operations occurring at the site include, but are not limited to, the following:

- Performance of the final cover system

- Scheduled maintenance activities
- Generated leachate quantities
- Inspection records
- Training procedures
- Notification procedures
- Closure and post-closure plans
- Financial responsibility
- Monitoring, testing, and analytical data, as required by NR 514.045(1)(h) and (i)

5.5.10 Collection Line Cleaning

Leachate collection and transfer lines will be cleaned with a high-pressure water jet sewer cleaner on an annual basis as required by NR 506.07(5)I. During annual leachate line cleaning, sediment will be removed from the leachate collection pipes and load-out pad catch basin. Sediment will be disposed in the active cell of the landfill.

The integrity of the leachate collection tank will be inspected annually, and the inside of the tank will be inspected every 5 years. A mixing system is installed within the tank; thus solids are not anticipated to accumulate in the tank. Solids that are encountered during the inspections will be removed and hauled to the working face of the active cell for disposal.

The leachate collection line and leachate transfer line are equipped with a clean-out at each end, extending up the sideslopes. The leachate force main will have a removable spool-piece contained within a transfer manhole to facilitate line cleaning. Cleaning debris will be pulled into the manholes, where it will be removed and disposed in the active landfill.

5.5.11 Personnel and Equipment

WPSC bears the responsibility for the environmentally sound and efficient operation of the site. The operation of WDS3 shall be under immediate direction of WPSC. In the event that the landfill is operated outside the normal operating hours (or for holidays, vacations, etc.), supervision of the landfill will be coordinated by WPSC supervisors. They are to ensure that adequate personnel and equipment are available for landfill operations.

The unloading of solid waste will be continuously supervised by a Site Operator or Facility Manager certified in accordance with NR 524. Employees will be equipped with the appropriate training and personal protective equipment for waste handling. Properly maintained equipment of adequate number, type, and size shall be used in operating the landfill pursuant to established engineering practices. Backup equipment is available at the

power plant; and if needed, arrangements will be made with a contracted source to provide additionally required equipment.

5.6 General Ash Filling Procedures

Daily operations will be contained to the smallest area possible. Waste placement will begin in the high end of each cell and move towards the low end. The waste slopes will be maintained as flat as possible, while maintaining a positive drainage to the east. The minimal slopes will help reduce erosion potential and the possibility of runoff escaping from the landfill, as final grades are reached. Initial ash placement for the frost protection layer will be made using a low-ground pressure dozer to spread, grade, and compact the ash. During initial CCR placement, quick stops, sharp turns, or excessive traffic will be avoided to protect the base liner system. Wheeled construction and waste hauling traffic should be limited to areas where the waste thickness is greater than 4 feet. The frost protection layer needs to be placed over the granular drainage blanket in all portions of the lined area by December 1 of the year following the year of construction in accordance with NR 506.07. Once the frost protection layer is in place, the liner system is adequately protected from equipment and vehicle traffic. Vehicle restrictions should continue to be in place near the perimeter and along the sideslopes of the cell.

The filling plans for WDS3 are depicted on Drawings PM-7 through PM-13. Site cross-sections and construction details are depicted on Drawings PM-17 through PM-29. Access to the active fill areas will be from temporary access roads constructed over the ash to reduce the distance that ash must be graded. Roads over existing ash may be constructed using sand and gravel and may include geotextile as a subbase to provide a stable working surface. Temporary dump pads may also be used to facilitate ash placement and will be constructed in a manner similar to temporary roads, only wider. The ash will be dumped from haul trucks, and a dozer or wheeled loader will grade the ash to a uniform surface thickness to allow compaction and maintain stability of the fill mass as a whole.

Temporary dikes may be used to retain ash and prevent the loss of any leachate or precipitation that has come into contact with the ash. Temporary dikes will be removed, as necessary, for cell construction or final cover placement.

An inter-cell berm will be constructed between the constructed and unconstructed cells to terminate the geosynthetics and provide a separation between leachate and surface water. The cell separation berm may also act as a base for haul truck access. Surface water control within the active cell will be contained by the lined portion of the berm. The leachate collection header pipe will be sealed between cells to prevent leachate escaping or intrusion of surface water.

High volume industrial materials are not subject to daily or intermediate cover requirements in accordance with NR 506.05(2) and NR 506.06. Immediate cover may be used as an alternative for dust control or for stormwater management on active portions of the landfill when deemed beneficial to WPSC. Any area cover with intermediate cover will render this area as producing non-contact runoff that will be routed to the site stormwater system.

5.7 Leachate Management

Leachate and contact water are expected to be generated during operations while the landfill is open and active. Upon final closure, leachate is expected to taper off because of the expected performance of the composite final cover system. The design of the leachate collection and transfer system is described in Section 5.4.5 and shown on Drawings PM-21, PM-24, and PM-25.

The leachate that is transferred to the collection tank will be hauled to an approved facility for treatment or hauled to the active fill area and used for dust control or CCR conditioning through surface application. The surface application will consist of using a tank truck to transport leachate to the working face of the landfill. Leachate generated at the site and not used for CCR conditioning or dust control will be hauled to the WPSC Weston Power Plant or another approved facility for treatment.

Leachate headwells are installed within the leachate collection system to monitor the hydraulic head on the base liner in accordance with NR 507.09. Two leachate headwells will be installed in a 3-inch-diameter SCH 120 PVC or SDR 17 HDPE sideslope riser pipes in each cell as shown on Detail 3 on Drawing PM-21. At the end of the pipe, a 5-foot-long section of perforated (or well screen) 3-inch-diameter SCH 120 PVC or SDR 17 HDPE pipe will be installed. The piping will be placed directly on top of the geomembrane at a constant elevation across the cell floor. A sweep bend should be used to transition from the cell floor to the sideslope. An elbow fitting should not be used because it restricts access for the piezometer through the pipe.

The leachate headwells should be instrumented with non-vented vibrating wire piezometers. The vibrating wire piezometers should be installed inside a 3/4-inch, SCH 40 PVC conduit and slid inside the leachate headwell pipe to the appropriate monitoring location. The location of the headwells are shown on Drawing PM-16. This system allows for the vibrating wire sensor to be removed and replaced if damaged due to a lightning strike or if the sensor wears out due to corrosion. The vibrating wire sensor should be calibrated to a zero-pressure reading in the field prior to installing in the leachate headwell. The non-vented piezometers read absolute pressure and do not adjust for changes in barometric pressure. A correction can be made to account for changes in barometric pressure with each reading using publicly available data from the weather station at the Central Wisconsin Airport. WPSC proposes to monitor the leachate headwells in accordance with NR 507.21 Wis. Adm.

Code. The monitoring is specified to be on a quarterly basis and reporting of the data is semi-annually in accordance with NR 507.26.

5.8 Final Cover System

The final cover system will be constructed to bring the site to final grades, as shown on Drawing PM-15. The final cover has been designed to meet, at a minimum, the requirements of NR 504.07. The final cover system will consist of the following components, from bottom to top (refer to Detail 1 on PM-27):

- 24-inch-thick compacted clay layer or soil barrier layer with a geosynthetic clay liner (GCL)
- 40-mil textured liner low-density polyethylene (LLDPE) geomembrane
- Geocomposite drainage layer
- 30-inch-thick rooting zone layer
- 6-inch-thick topsoil layer

Final cover construction details are shown on Drawings PM-7 through PM-15, PM-27, and PM-28. Final cover design calculations, including HELP Model calculations, hydraulic conductivity, leakage rate, and veneer stability of the final cover system, are presented in Appendix I and satisfy conditions of NR 504.12(4) and NR 514.045(1)(f). The following sub-sections discuss construction of the individual components of the final cover system. The quantities of material needed for construction of the composite cover are summarized in Drawings PM-7 through PM-15.

5.8.1 *Compacted Clay or Soil Barrier Layer*

The 24-inch-thick compacted select clay fill layer will meet the requirements of NR 504.06(2)(a) and will be placed in accordance with the requirements outlined in NR 504.06(2)(f) and the CQA Plan (Appendix N). If GCL is utilized in lieu of the 24-inch-thick compacted clay barrier layer, a 24-inch-thick compacted soil barrier layer will be placed in accordance with NR 504.07(4)(a)(12) and the CQA Plan (Appendix N).

Construction quality assurance of the compacted barrier layer includes material testing to document the material properties, compaction and moisture content testing, and undisturbed soil sampling for confirmation of the material properties. The compacted barrier layer testing rates and procedures during construction will be completed in accordance with the CQA Plan (Appendix N).

5.8.2 Geosynthetic Clay Liner

If a soil barrier layer is utilized, a GCL will be placed directly above the compacted soil barrier layer throughout all areas of the final cover. The GCL will consist of a layer of pure sodium bentonite encapsulated between two geotextiles. Specifications for the materials, installation, and documentation of the GCL will meet the requirements of NR 504.07(4) and are included in Section 12 of the CQA Plan, found in Appendix N.

Before the GCL is placed, the compacted soil barrier surface will be examined for protruding rocks, foreign objects, holes left from rock or stake removal, loose material, desiccation, and overall smoothness of the surface. Coarse gravel or cobbles larger than 2-inches in diameter will be removed from the surface by hand. Other courses of remedy that may be practiced include smooth drum-rolling the surface, filling in ruts or holes with fill, bentonite, and water the surface.

The GCL panels will be placed in an orientation that runs directly down the side slopes. The GCL panels will be placed with a minimum 6-inch longitudinal overlap and a minimum of 20 inches of overlap at the panel end seams. A seal of loose bentonite will be placed in the seam overlaps at the panel end seams. A seal of loose bentonite will be placed in the seam overlaps at a minimum of one quarter pound per linear foot of seam unless additional overlap has been approved as an alternative by the WDNR. The GCL will be installed dry and covered the same day.

The GCL will be tested during manufacturing and prior to installation. The results of the manufacturer's testing will be submitted for review and approved prior to shipment of any GCL rolls to the site. Samples of the rolls delivered to the site will also be collected for conformance testing by a third party laboratory prior to installation. The testing requirements, acceptable values, and responsibilities are further explained in the CQA Plan in Appendix N.

5.8.3 Geomembrane

Within the same day of the installation of the GCL, the 40-mil LLDPE geomembrane liner will be installed throughout the final cover. Specifications for the materials, installation, and documentation of the 40-mil LLDPE geomembrane are outlined in Section 10 in the CQA Plan (Appendix N). The geomembrane will be tested during the manufacturing, and prior to and during installation. The results of the manufacturer's testing will be submitted for review and approved prior to shipment of any geomembrane rolls to the site. Samples of the rolls delivered to the site will also be collected for conformance testing by a third party laboratory prior to installation. During placement, both nondestructive and destructive testing of the geomembrane seams will be performed. Nondestructive testing will be performed by the installation contractor and observed by a third party. Destructive testing

will consist of both field and third party laboratory testing of the samples collected. The testing requirements and minimum acceptable values are provided in Table 10-3 and 10-4 in the CQA Plan (Appendix N.)

Geomembrane panels will be positioned by suspending rolls of material with a front-end loader and unrolling the suspended material by hand or with the aid of an ATV as the loader remains stationary. The geomembrane will be installed in a loose and relaxed condition. Panels will be overlapped approximately 4 inches and fusion-welded together. At seam intersections and other repair locations, a patch extending a minimum of 6 inches beyond the intersection or repair will be extrusion welded into place. All seams will be non-destructively tested, fusion welds will be air pressure tested, and extrusion welds will be vacuum box tested. Destructive testing of seam specimens will be performed at a minimum frequency of one test per 500 feet per day per welder/seamer combination.

5.8.4 Geocomposite Drainage Layer

A geocomposite drainage layer will be installed above the geomembrane that will have an equivalent or greater hydraulic conductivity flow capacity of 1-foot of sand with a minimum hydraulic conductivity of 1.0×10^{-3} cm/sec, in accordance with NR 504.07(6)(a). The drainage layer will be installed to aid in the removal of subsurface storm water drainage and will provide puncture protection to the geomembrane during placement of the rooting zone layer. The geocomposite drainage layer will be installed in a loose and relaxed condition. The geonet of adjacent panels will be cable tied together every 3 feet along longitudinal seams and every 12 inches along end seam. The top geotextile will be sewn or continuously heat-tacked to prevent rooting zone material from clogging the geonet.

The geocomposite will be subject to manufacturer's quality control (MQC) testing prior to shipment. The material will be specified to meet the physical properties and the manufacturer will be required to provide the minimum test results as required by Table 14-1 and 14-2 in the CQA Plan. Specifications for the materials, installation, and documentation of the geocomposite are outlined in Section 14 in the CQA Plan (Appendix N).

Subsurface drain tile will be installed immediately above the geocomposite drainage layer at the crest and toe of the 4H:1V final cover slope to intercept and control subsurface stormwater drainage in accordance with NR 504.07(6). The drainage system will include 4-inch diameter corrugated perforated polyethylene pipe in a geotextile sock. The pipe will be buried in the rooting zone material and featured an outlet approximately every 200 feet around the perimeter of the landfill and will have a rip rap apron at the outlets to minimize erosion (Detail 2 on PM-27). The geocomposite drainage layer and subsurface drain tile will increase final cover stability by preventing the buildup of pore pressure above the geomembrane cover. The drainage layer and drain tile will also increase the removal

efficiency of subsurface storm water, decreasing the volume of water available to percolate through the final cover system and into the waste mass.

5.8.5 Rooting Layer and Topsoil

A 30-inch-thick rooting layer will be installed immediately above the geocomposite drainage layer followed by 6 inches of topsoil. The rooting zone and topsoil layers will be constructed of on-site soils and installed to support vegetative growth and to protect the composite final cover system against the effects of freeze/thaw and physical damage. The rooting zone will be placed over the geocomposite in a single lift using low ground pressure (LGP) dozers. The material will be classified as SW, SP, SM, SC, ML, or CL and have a maximum particle size of 3 inches.

The rooting zone layer will be placed with low-ground-pressure equipment. The soil will be pushed ahead of the equipment out of the geocomposite drainage layer. A minimum of 3 feet of material will be placed prior to allowing trucks and other wheeled hauling equipment to operate on the surface. The initial lifts of general fill will be graded gradually to the designed thickness with a low-ground-pressure tracked bulldozer. The layer thickness will be documented by thickness measurements on the same 100-foot grid pattern used to document the barrier layer.

Topsoil capable of sustaining vegetative growth will be placed and spread to a uniform thickness of 6 inches above the rooting zone. The site will be fertilized with a Class A fertilizer under Wisconsin Department of Transportation (WisDOT) Standard Specification 629.2.1.2 and seeded at 135 pounds per acre using WisDOT #20 highway seed mixture. Following seeding, all areas will be covered with erosion control re-vegetative mat (WisDOT PAL Class II Erosion Control Re-Vegetative Mat). A different seed mix, fertilizer, and mulch and associated application rates can be used if approved by the WDNR. Permanent vegetation will be established the following year after each phase of final cover construction.

5.9 Surface Water Control

During site construction, ditching will be used to divert surface water away from the construction areas to temporary sumps or the existing storm water control features. Ditch check dams, consisting of stone or hay bales, will be installed in drainage ditches to control erosion until vegetation is established. In areas where soils are stockpiled, silt fence and swales will be installed to intercept sediment from the rainfall runoff. Diversion berms and drainage ditches will be constructed, as appropriate, to divert storm water runoff from the stockpiles. Exposed soil areas outside the limits of landfill operations will be vegetated to minimize erosion. The surface water control system will be inspected on a routine basis during construction. If erosion or excessive sediment transport is identified, additional erosion control measures will be taken as needed. During construction, all contact water will be handled as leachate through the facility's pumping, storage, and leachate disposal system

and all non-ash contact stormwater runoff will be handled through site ditching and stormwater control structures. When problems are identified, repair measures will be implemented to restore the system to proper operating conditions. After closure, the stormwater runoff will be handled through the ditching and stormwater control structures until vegetation is firmly established.

5.10 Construction Quality Assurance Observations and Documentation

In accordance with NR 516, base liner, leachate collection, and final cover system construction at WDS3 Landfill will be documented by a Professional Engineer registered in the state of Wisconsin. A Registered Professional Engineer or qualified technician under the direct supervision of a Registered Professional Engineer will be present at all times during critical construction periods.

Reports documenting base liner and final cover construction will be prepared in accordance with NR 516. Additional site-specific details regarding construction observation and documentation will be provided in the CQA Plan, attached in Appendix N, and pre-construction reports.

Construction documentation reports will be prepared following each base liner construction and cell closure and will include the following information:

- Description of weather conditions.
- Description of construction activities and work force activities for each task.
- Record of survey data of all applicable layers.
- Record of thickness data of compacted soil layers, leachate collection system, rooting zone, and topsoil.
- Sample location and test results from material testing of soil layers, leachate collection system, rooting zone, and topsoil.
- Results from material testing geomembrane, geotextile, and geocomposite drainage layers.
- Coordinates and elevation data for all piping, lateral, and tee connections.
- Construction details.
- Drawings and photographs of site construction.
- A description of any deviations from the WDNR-approved plan.

Construction documentation reports were submitted to the WDNR Bureau of Solid and Hazardous Waste Management regional office for review and approval.

6. Operational Plans

6.1 Fugitive Dust Control Plan

Section NR 514.07(10)(a) of the Wis. Adm. Code requires that the Plan of Operation Modification shall include a CCR fugitive dust control plan. The fugitive dust control plan for WDS3 is attached in Appendix J and was prepared to meet the requirements of 40 CFR 257.80(b). CCR delivered to the landfill is conditioned with water prior to transporting and compacted and groomed when placed in the designated disposal area or stockpile. WDS3 is designed and operated to have filling areas at different elevations to assist in the prevention of windblown dust during adverse weather conditions. CCR discharged from the trucks in the designated active area of the cell are graded, water conditioned, if necessary, and compacted to suppress dust generation. Access roads into the landfill are paved to minimize the generation of dust due to truck traffic and are swept and watered regularly. Lastly, final cover is installed as soon as final waste grades are achieved over a sufficient area to support a practical final cover installation work scope to minimize wind generated dust in the active area.

6.2 Run-on and Run-off Control Plan

An updated Run-on and Run-off Control Plan was submitted in October 2021 in accordance with § 257.81(c)(4) which requires the owner or operator of the CCR unit to prepare periodic run-on and run-off control system plan updates every 5 years. The updated Run-on and Run-off Control Plan is attached in Appendix K and satisfies conditions of NR 514.07(10)(b) of the Wis. Adm. Code and requirements of this Plan of Operation Modification.

Section NR 504.12(2)(a) and (b) state that a run-on and run-off control system shall be designed to control a peak discharge resulting from a 24-hour, 25-year storm. The rainfall depth estimate for a 24-hour, 25-year storm at WDS3 was determined following procedures outlined in Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 8, Version 2: Wisconsin. For WDS3, a 24-hour, 25-year storm resulted in 4.47 inches of rainfall.

In order to control stormwater and prevent run-on into the active landfill, permanent perimeter berms have been established around the east and south sides of the landfill to direct stormwater run-on away from the active areas. Temporary intercell berms perform the same function on the west and north sides of Cell 1 and the west side of Cell 2. Stormwater flow from the final cover of Cell 2 is routed to a perimeter ditch and discharges into Stormwater Basin No. 3. Drawing C-1, in Appendix K illustrates the permanent and temporary perimeter berms that control stormwater run-on at WDS3. The landfill has an acceptable run-on control system, satisfying conditions of NR 514.07(10)(b).

Precipitation within the active area of WDS3 is handled as contact stormwater and is treated as leachate. The contact stormwater is directed to the perimeter containment ditches on the inside of the perimeter berms and routed to a stormwater surge area located along the Cell 2-3 intercell berm area, where it is allowed to infiltrate into the leachate collection system and is managed in accordance with Section 5.4.5 and 5.7 of this Plan of Operation. A Run-Off Stormwater Flow Diagram figure is included in Appendix K and illustrates the run-off control plan. WDS3 has an acceptable run-off control system, satisfying conditions of NR 514.07(10)(b).

6.3 Closure Plan

A written closure plan is attached in Appendix L and satisfies requirements of NR 514.07(10)(c) for this Plan of Operation Modification. Partial final cover has been installed over the south and east slopes of Cell 2 and consists of a 6-inch grading layer, 24-inch compacted FGD filter cake and fly ash barrier layer, 40-mill LLDPE geomembrane, a geocomposite drainage layer, 30-inch rooting zone layer, and a 6-inch topsoil layer. Future final covers at WDS3 will be in accordance with the approved Closure Plan and this Plan of Operation Modification.

6.4 Post-Closure Care Plan

The written post-closure care plan is attached in Appendix M and satisfies requirements of NR 514.07(10)(d) and for this Plan of Operation Modification. Post-closure care at WDS3 will include maintenance of the final cover system and the continuation of the groundwater monitoring network as in accordance with NR 507.15(3). Final cover system maintenance includes mowing the final cover to inhibit the growth and presence of woody vegetation, and an annual inspection of the final cover to inspect for any settlement, subsidence, or erosion. If any of these conditions are observed, WPSC will be responsible for any final cover repairs as soon as practical.

7. Summary and Conclusion

On August 1, 2022, the WDNR updated NR 500 of the Wisconsin Administrative Code (Wis. Adm. Code) to include changes to new and existing Coal Combustion Residual (CCR) Landfills in the State of Wisconsin. GEI Consultants, on behalf of WPSC is submitting this Plan of Operation Modification for WDS3 to comply with the updated Wis. Adm. Code for new or existing CCR Landfills in the State of Wisconsin in accordance with NR 514.045. Included in this submittal are the requirements outlined in NR 514.045(1), the plan of operation for the active WDS3 Landfill, a drawing set featuring the base liner, final cover, phasing waste grade details, and the leachate collection system, and a separate attachment demonstrating the CCR groundwater monitoring system and sampling plan in accordance with NR 507.15(3).

8. References

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Wisconsin Department of Natural Resources (WDNR) (2018). Construction documentation approval for the Cell 2 partial final cover at the Wisconsin Public Service Corporation (WPSC)

Weston Disposal Site No. 3 located in the Town of Knowlton, Marathon County, Wisconsin (DNR License No. 3067), April 13, 2018.

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Drawings

- PM-1 Title Sheet**
- PM-2 Standard Legend and General Notes**
- PM-3 Existing Conditions Map and Site Layout**
- PM-4 Subbase Grades**
- PM-5 Base Grades/Leachate Collection System**
- PM-6 Cell 1 & Cell 2 Site Preparation**
- PM-7 Cell 3 Site Preparation, Area A Closure**
- PM-8 Cell 4 Site Preparation, Area B Closure**
- PM-9 Cell 5 Site Preparation, Area C Closure**
- PM-10 Cell 6 Site Preparation, Area D Closure**
- PM-11 Cell 7 Site Preparation, Area E Closure**
- PM-12 Cell 8 Site Preparation, Area F Closure**
- PM-13 Cell 9 Site Preparation, Area G Closure**
- PM-14 Top of Waste Grades**
- PM-15 Final Grades**
- PM-16 Environmental Monitoring Plan**
- PM-17 Engineering Cross Section 2,061,700E**
- PM-18 Engineering Cross Section 2,062,550E**
- PM-19 Engineering Cross Section 324,700N**
- PM-20 Engineering Cross Section 325,300N**

PM-21 Details

PM-22 Details

PM-23 Details

PM-24 Details

PM-25 Details

PM-26 Details

PM-27 Details

PM-28 Details

PM-29 Details