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July 14, 2023
Project No. M8128.02.007

Blair Paulik
Oregon Department of Environmental Quality
Northwest Region Cleanup Program
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

Re: Response to DEQ's Comments on *Siltronic Operable Unit Remedial Investigation Data Summary Report*
Siltronic Corporation
7200 NW Front Avenue, Portland, Oregon
ECSI No. 183, DEQ Order No. OPSR-NWR-16-02

Dear Blair:

On behalf of Siltronic Corporation (Siltronic), Maul Foster Alongi, Inc. (MFA) is providing responses to the Oregon Department of Environmental Quality's (DEQ's) June 1, 2023, comments on the *Siltronic Operable Unit Remedial Investigation Data Summary Report* (Data Summary Report) prepared by MFA and dated March 31, 2023. This letter formally responds to DEQ's comments, as requested in its comment letter, and documents how DEQ's comments on the Data Summary Report will be incorporated into the Remedial Investigation (RI) report for the Siltronic Operable Unit (SOU). DEQ's comments are referenced and responded to in the order they were presented in its June 1 letter.

General Comments

Comments 1 and 2: Groundwater dataset and groundwater data evaluations for the SOU RI and Use of the Decision Tree for approving wells and groundwater data

DEQ has indicated that it was not clear how the data presented in the Data Summary Report were necessary to meet the data use objectives (DUOs) of the RI within the physical scope of the SOU RI. DEQ also indicated that the DUOs in the Data Summary Report were applied too broadly to be useful in decision-making. In a May 10, 2022,[1] letter to Siltronic, DEQ stated the physical scope of the RI should focus on:

[1] DEQ defined the physical scope of the RI in its May 10, 2022, letter *Re: Southern Siltronic Operable Unit Remedial Investigation, Feasibility Study, and Source Control Evaluation, Siltronic Corporation, Portland, Oregon, ECSI No. 183.*

1. Characterizing the nature and extent of chemicals of interest (COIs) in soil in the fill and groundwater in the fill water bearing zone (WBZ) and the Alluvium WBZ above plumes originating offsite;
2. Evaluating potential migration of Fill WBZ contamination laterally to Willamette River and/or Doane Creek/Outfall 22C and vertically into the Upper Alluvium WBZ or deeper, including downgradient migration of these deeper water-bearing zones to the Willamette River; and
3. Identifying/characterizing releases of hazardous substances from the facility to surface water and sediments of the Willamette River and the section of Doane Creek bordering the Siltronic OU.

DEQ conditionally approved groundwater data collected in the deeper alluvium water-bearing zone (WBZ) for COIs exceeding SLVs, as guided by the decision tree provided in the June 1, 2023, letter. DEQ has not yet approved groundwater data from the alluvial gravel and basalt WBZs due to uncertainty about the potential for COCs to migrate from shallower WBZs.

Siltronic has reviewed the proposed decision tree screening process provided by DEQ and generally agrees to implementing the decision tree on the groundwater data submitted in the Data Summary Report. This screening process is currently underway. Several technical questions have come up in the implementation process. As of the date of this letter, the following technical questions have arisen and have been resolved to facilitate the screening process, with concurrence from DEQ:

- Data will be screened by contaminants of interest (COI) groups, rather than individual COCs. Siltronic is working with DEQ to finalize the COI groups for screening;
- For consistency between the Gasco Operable Unit and SOU projects, data will be screened using the human health and ecological screening level values (SLVs) used in NW Natural's (NWN's) 2019 Remedial Investigation/Human Health Risk Assessment (RI/HERA),[2] with the exception of SLVs that have been superseded by DEQ's 2020 Ecological Risk Assessment Internal Management Directive[3] and DEQ's 2023 chronic and acute vapor intrusion risk based concentrations;[4] and
- Summation rules will generally be consistent with the methodology implemented in NWN's RI/HERA, for consistency. It is Siltronic's understanding that there are potential updates to total petroleum hydrocarbon (TPH) summations on the NWN's project, which will be conveyed to Siltronic once finalized.

Siltronic anticipates continuing to work collaboratively with DEQ to resolve these data handling and screening questions as it continues to work through the decision tree.

[2] Anchor. 2019.
[3] DEQ. 2020.
[4] DEQ 2023.

Comment 3: Section 1.1.2. Property History

DEQ stated that the Siltronic 2017 Siltronic Operable Unit Remedial Investigation Work Plan (SOU RI WP) has not yet been approved by DEQ. MFA will update the language of the property history section to reflect that DEQ's review of the SOU RI WP is ongoing.

Comment 4: Data Use Objectives

DEQ requested DUOs 2, 3, and 5 be revised to refine the scope of the RI data set and evaluations in the RI report. DEQ provided proposed edits to the DUOs, modifying statements about sources/releases "on the SOU" to "on the Siltronic Property" and clarifying that the DUO 5 evaluation of potential downward migration to deeper water-bearing zones would need to be justified by DEQ-approved technical evaluations. Siltronic concurs with these changes and will implement them in the RI report.

Comment 5: Section 3. Data Reconciliation

DEQ provided a list of installed wells and corresponding data conditionally approved or not yet approved for use in the SOU RI, as guided by the decision tree. Siltronic is reviewing the conditionally approved and not yet approved wells and corresponding data through the decision tree screening process. Siltronic will present technical rationale for inclusion of the data evaluated if the results of the screening process justify their inclusion in the RI Dataset.

Siltronic appreciates DEQ's formal approval on the groundwater data collected in the fill WBZ, hydraulic conductivity testing, and soil datasets.

Comment 6: Section 4. Data Gaps

DEQ requested a more robust data gaps assessment be completed in the RI report, including additional justification of the sufficiency of the dataset to meet the DUOs.

Siltronic acknowledges the need for data gaps assessment and will perform a detailed data gaps assessment using the final, approved data that is incorporated into the RI as part of the conceptual site model section of the RI report. This data gaps assessment will include discussion of whether the nature and extent of contamination is complete and sufficient and will identify whether any additional data is needed to resolve those data gaps, if present. It is understood that DEQ will review the data and the data gaps assessment and may request additional data if data gaps remain.

Comment 7. Table 1-1

DEQ requested six changes to Table 1-1, *Potential Sources and Chemicals of Interest on the Siltronic Operable Unit*, and incorporation of those changes into all analysis and evaluations relevant to the RI. As noted below, with the exception of eliminating dioxins/furans as a COI associated with former

manufactured gas plant (MGP) wastes and byproducts, Siltronic acknowledges and concurs with these requested changes.

Siltronic understands that dioxins/furans are not typically investigated at MGP sites. However, multiple lines of evidence support inclusion of dioxins/furans as a COI for MGP wastes and byproducts. DEQ's 2021 memorandum, referenced in its June 2023 comment letter, states that DEQ considers dioxins/furans present in the Lower Alluvium WBZ and/or Deep Lower Alluvium WBZ to be attributable to off-site contamination from the Rhone Poulenc (RPAC) facility. While Siltronic agrees that dioxins/furans from the RPAC facility are present beneath the Siltronic Property, it is also clear from the data that dioxins/furans are likely associated with source materials located on the SOU. The available data support both the fill materials and MGP waste materials as sources of dioxins/furans on the SOU. DEQ also states in the 2021 memorandum "[u]nless new information becomes available that indicates otherwise, DEQ does not consider dioxins and furans in these WBZs to be COCs for the Gasco OU." Siltronic has additional information, including the confirmation that dioxins/furans are present in non-aqueous phase liquid samples collected from the GOU that are consistent with MGP waste. This additional information came out of an MFA evaluation as to whether MGP waste is a source of dioxins/furans (See Attachment A). Gasco's historical MGP exhibited the conditions appropriate to form dioxins/furans. In addition, the media at the Siltronic Property exhibit congener profiles that distinguish RPAC's dioxin/furan releases from those associated with MGP releases. Siltronic believes that excluding dioxins/furans as a COI for MGP wastes on the SOU will potentially result in an incomplete conceptual site model for the SOU.

Comment 8: Figures

In its June 2023 letter commenting on the Data Summary Report, DEQ provided revised Exhibit A of the 2016 Unilateral Administrative Order (UAO; DEQ Order No. OPSR-NWR-16-02), depicting the SOU boundary. DEQ stated that the SOU boundary is shown incorrectly on the Data Summary Report figures. DEQ's requested boundary is not the original boundary of the UAO's Exhibit A. The original Exhibit A, included with the UAO that was issued to Siltronic on August 16, 2016, and to which Siltronic agreed to comply, showed the SOU generally following the Siltronic property's tax parcel boundaries (See Attachment B). More than a month after the UAO was prepared, DEQ unilaterally submitted a revised Exhibit A to Siltronic via email attachment. This revised Exhibit A, which was not part of the original UAO that Siltronic agreed to comply with, extends the SOU boundaries to encompass areas that Siltronic has never owned or controlled – portions of Doane Creek located on BNSF property.

Siltronic has previously addressed this issue with both DEQ and the Oregon Department of Justice through meetings, letters, and email. In an email dated October 18, 2016, Gary Vrooman, Senior Assistant Attorney General, stated that the revised exhibit is not an expansion or amendment of the 2016 UAO but is to clarify that the RI must include investigation of whether contamination from the Siltronic Property is potentially impacting Doane Creek. It is Siltronic's understanding that the intent of the revised UAO site boundary is to only address whether contamination originating from the Siltronic SOU potentially migrates to areas outside of the Siltronic property boundaries and the

revision does not infer Siltronic is required to sample beyond Siltronic's property boundary. Therefore, Siltronic will use the revised SOU boundary on future submittals with this understanding of its intent.

Closing

On behalf of Siltronic, MFA appreciates the opportunity to respond to DEQ's comments and continue to make progress on completing an RI for the SOU.

Sincerely,

Maul Foster & Alongi, Inc.

Michael R. Murray, RG, PE
Principal Hydrogeologist

Courtney Savoie, RG
Senior Hydrogeologist

Attachments

Limitations

A—Dioxin/Furan Evaluation Memorandum

B—SOU Boundary Documentation

cc: Wesley Thomas, DEQ
Paul Seidel, DEQ
Dave Lacey, DEQ
Dan Hafley, DEQ
Madi Novak, EPA
Laura Hanna, EPA
Elizabeth Bingold, Siltronic Corporation
Traci Parker, Siltronic Corporation
Myron Burr, Restoration Strategies LLC
David Rabbino, Jordan Ramis

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

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Attachment A

Dioxin/Furan Evaluation Memorandum

MAUL FOSTER ALONGI

Technical Memorandum

To:	Blair Paulik, PhD, and Wes Thomas, PE Oregon Department; of Environmental Quality	Date:	July 14, 2023
From:	Courtney Savoie, RG, Audrey Hackett, and Mike Murray, RG, PE	Project No.:	M8128.02.007
Re:	Evaluation of Dioxins/Furans in Gasco Manufactured Gas Plant Waste		

Maul Foster Alongi, Inc., has prepared this technical memorandum which presents an evaluation of sources of polychlorinated dibenzo-p-dioxins (dioxin) and polychlorinated dibenzofurans (furan) detected on the Siltronic property (Figure 1). MFA reviewed historical and analytical data collected from the Siltronic property and from nearby cleanup sites to evaluate whether manufactured gas plant (MGP) operations at the Gasco facility are a source of dioxin/furan contamination observed beneath the Siltronic property. Based on a review of historical documents for the Gasco facility and supporting scientific publications, Gasco's historical MGP operations provide the necessary conditions to generate dioxins/furans. Dioxins/furans have been detected in MGP waste collected from the Siltronic property and that waste, as well as dioxin/furans that have been detected in soil and groundwater, have a congener-dominated profile that is distinct from other well-documented dioxins/furan sources in the vicinity of the Siltronic property. Findings of this evaluation indicate dioxins/furans are associated with MGP activities at the Gasco facility, and a source of dioxin/furan contamination across the Siltronic property.

The following sections detail the background, methods, and findings of this evaluation.

Background

Dioxins/furans are a group of 210 individual structural congeners that are unintentionally produced as by-products of numerous combustion, incineration, industrial chemical manufacturing processes, as well as natural processes such as volcanic eruptions and forest fires (Hites 2011; Institute of Medicine 2003). Dioxins/furans are distributed widely in the environment, and because they emanate from these variety of sources, are resistant to degradation, persist in the environment for years after release (EPA 2006). Dioxins/furans are hydrophobic compounds and will preferentially partition into the solid phase, rather than remaining dissolved in the aqueous phase (Institute of Medicine 2003). However, dioxins can also be present in groundwater through sorption to colloidal material (Fan et al 2006).

The formation of dioxins/furans in industrial settings is complicated, and the mechanisms by which they form are difficult to predict. However, dioxins/furans are formed and released into the environment by three primary mechanisms (EPA 2006):

1) through the original fuel source having been previously contaminated (such as in municipal solid waste which may already contain dioxins/furans);

2) combustion of aromatic precursor compounds (such as chlorobenzenes, chlorophenols, and benzenes) in the presence of a chlorine source (such as hydrogen chloride or free chlorine). Dioxins/furans form from the thermal breakdown and molecular rearrangement of the precursor compounds following the precursor compound's interaction with chlorine, promoted by a metal catalyst; and

3) *de novo* synthesis which requires a carbon source, presence of oxygen and chlorine, and catalyzation of reactions by the presence of a transitional metal (such as copper chloride) at temperatures between 200 to 350° Celsius. *De novo* synthesis can itself create precursor compounds that also form dioxins/furans.

Presence of Dioxins/Furans at the Siltronic and Gasco Properties

Dioxins/furans have been detected in soil, groundwater, and NAPL on the Siltronic property. There are several documented or likely sources of dioxins/furans with the potential to contaminate soil and groundwater beneath the Siltronic property. Adjacent facilities are documented sources of dioxins/furans and include, but are not limited to, former pesticide/herbicide manufacturing processes at the RPAC facility (Legacy Site Services 2010; DEQ 2015) and former chloralkali manufacturing processes at the Arkema facility (ERM 2010).

Dredge spoils historically placed on the Siltronic property by previous owners (between 1960 and 1977) to fill the site for redevelopment (HAI 2007) are also a likely source of dioxins/furans on the property (MFA 2016). Based on the data discussed in this memo, MFA concludes that the Gasco facility is also a likely source of dioxins/furans due to historical fuel combustion operations.

Potential Dioxin/furan-generating Activities at MGPs and at Gasco

Sparse dioxin/furan data is available at manufactured gas plants. This is largely due to the lack of investigation of these chemical compounds at MGP sites, not because these compounds have been eliminated through empirical demonstration. This observation is supported by scientific review (Walker et al, 1997):

> "no studies have been published that attempt to confirm the existence of [dioxins/furans] at gas plants or examine possible formation of these compounds during gas manufacturing. Because of the large volumes of water for cooling and cycling of waste and process residuals, many former gas manufacturing plants lie along waterways. Sediment and soil located at these facilities should be examined to confirm the extent to which [dioxins/furans] are associated with gas manufacturing facilities."

Despite the lack of data, available literature indicates that historical MGP operations are potentially a source of dioxins/furans to the environment (Walker et al. 1997). Though the referenced literature investigates coal gasification, oil-feedstock manufactured gas processes, like Gasco's, implement many of the same processes found at other industries that are known sources of dioxins/furans, primarily combustion of carbon-rich materials where chlorine sources are present. Crude oil naturally contains salts, including various forms of chlorine (including calcium chloride, sodium chloride, magnesium chloride, and organic chlorine). Salt content varies widely depending on the source of the crude oil and the efficacy of the desalting processes implemented before the oil undergoes refining (Speight 2022; Mitchell 1998).

The Gasco Facility used the "Pacific Coast Oil Gas Processes" through the duration of its operations, which utilized a heavy residual fuel oil as the feedstock (HAI 2007). Bunker C, a residual fuel oil, contains various amounts of impurities remaining after the refining process following capture of the

lighter fuel grades (Speight 2022). EPA has identified industrial fuel oil boilers, which heat residual fuel oil, as a source of dioxins/furans (EPA 2006). An EPA study identified the mean emission factors for dioxins/furans from combustion of fuel oil in utility boilers which resulted in an octachlorodibenzodioxin (OCDD)-dominated signature (EPA 1997; Cleverly 1997), indicating heavy fuel oils, like those used in Gasco's oil gasification process, contain sufficient carbon and chlorine for chlorination reactions to occur and generate dioxins/furans when in a combustion setting.

Gasco's feedstock and operational temperature conditions were also sufficient to form dioxins/furans. NWN used oil-gas generators at the Gasco facility described as a cylindrical shell lined with firebrick heated internally to a temperature ranging from 1750 to 2000°F (954 to 1093°C), which issued through a wash box water seal (Hall 1941, see Appendix A). A study of coal manufactured gas processes identified the conditions for dioxin/furan formation in the carbureted water gas process, which involves injecting a spray of oil into the coal-gas stream which is then drawn into a 1000°C brick-lined superheater to gasify the oil before continuing to wash boxes (Walker et al 1997). Therefore, the gasification equipment and maximum operating temperatures observed after the injection of oil in both the Gasco process and the carbureted water gas process are markedly similar. The operating temperatures at Gasco with the presence of carbon and chlorine in fuel oil likely led to the formation of dioxins/furans seen in Gasco MGP waste, which are observed in NAPLs beneath the Siltronic property. Historical documentation suggests the two feedstocks produce essentially the same products: "It may be generally stated that light oil manufactured from petroleum under proper cracking conditions is in every way equal to the light oil from coal gas or coke oven plants." (Hall 1941).

Regardless of whether MGP sites are typically investigated for dioxins, burning of fuel oil or processing fuel oil at high temperatures where incomplete combustion occurs, is a known source of dioxins/furans (EPA 1997, EPA 2006). Further, the empirical site data demonstrates the presence of dioxins/furans in multiple media at the Gasco operable unit. Importantly, MGP waste material from the former Gasco facility, including NAPLs, were disposed of and spread across the Siltronic property including the Siltronic Operable Unit (SOU) and contain dioxins/furans, demonstrating Gasco's MGP operations as a source of dioxins/furans.

Data Sources and Approach

This section presents the data sources used in MFA's evaluation of dioxin/furan chemical signatures. All analysis was conducted using the open-source R programming language. For all media, MFA implemented the following data summation and handling rules:

- Dioxin/furan total toxicity equivalency quotients (TEQs) were calculated as the sum of each compound detected, with the result multiplied by its specific toxicity equivalent factor (TEF), plus the full value of the highest product of non-detect result multiplied by the associated TEF.[1] If all results for individual dioxins/furans were non-detect, the TEQ was calculated by selecting the highest non-detect results multiplied by the associated TEF. This summation method is generally consistent with EPA's approach on Portland Harbor TEQ summations.[2]

[1] Van den Berg, Martin et al. *The 2005 World Health Organization reevaluation of human and Mammalian toxic equivalency factors for dioxins and dioxin-like compounds.* Toxicological sciences: an official journal of the Society of Toxicology vol. 93,2 (2006): 223-41. doi:10.1093/toxsci/kfl055

[2] EPA has provided several methods for calculating Total TEQs, as presented in numerous Portland Harbor data management documents. MFA's approach represents a conservative summation using EPA's guidelines.

NAPL

MFA evaluated NAPL data presented in Bayer's 2010 RI/SCE data set (AMEC 2010), as well as data collected on behalf of Siltronic in 2019 on the GOU.[3] A total of eight unique sample locations were used in the evaluation, including data collected between 2000 to 2019 at the following sites:

- the former Gould-NL Industries NPL site;
- RPAC property;
- BNSF property between the Siltronic SOU and RPAC sites;
- Siltronic SOU (Siltronic property); and
- Siltronic GOU-Allen Tract (Siltronic property).

NAPL sample data used in this evaluation are summarized in Table 1. NAPL sample locations are presented in Figure 2.

Soil

MFA evaluated soil data presented in Arkema's 2010 data gaps investigation (ERM 2010), RPAC's 2010 RI/SCE (AMEC 2010) and 2018 feasibility study data gaps investigation (Golder 2018), as well as data collected by Siltronic in 2018 (MFA 2023). These data were collected at both surface and subsurface depths from the Arkema site, RPAC site, the Gould and BNSF properties immediately downgradient of the RPAC site, and the Siltronic property (both the GOU-Allen Tract and SOU). Soil data used in this evaluation was collected between 1984 and 2018.

Soil sample dioxin/furan data used in this evaluation are summarized in Table 2. Soil sample locations are presented in Figure 3.

Groundwater

Because dioxins/furans have very low solubility in water and low volatility, investigations often focus on the extent of contamination in soil and sediments, with limited focus on dioxins in groundwater. Therefore, available groundwater data was more limited than soil data. MFA evaluated groundwater data presented in RPAC's 2010 RI/SCE and 2018 data gaps investigation (AMEC 2010; Golder 2018), NWN's source control groundwater monitoring events (Anchor 2019), as well as data collected by Siltronic from 2016 through 2019.[4] MFA included data collected from all water bearing zones from the Arkema site, the RPAC site, the Gould and BNSF properties immediately downgradient of the RPAC site, and the Siltronic property (both the GOU-Allen Tract and SOU). Groundwater data used in this evaluation was collected between 1984 and 2019.

Groundwater sample dioxin/furan data used in this evaluation are summarized in Table 3. Groundwater sample locations are presented in Figure 4.

Chemical Signature Evaluation

Chemical signature (often called fingerprint) evaluations are particularly well-suited for groups of organic compounds because (1) these groups contain many individual compounds which together

[3] MFA collected NAPL samples from monitoring locations WS-33-81 and WS-43-36 in April and September 2019. The results were submitted to DEQ in Siltronic's monthly progress reports, prepared under the 2000 Joint Order.
[4] Data collected by MFA submitted to DEQ in the RI Data Summary Report (MFA 2023) and in Siltronic's monthly progress reports, prepared under the 2000 Joint Order.

comprise a compositional pattern or chemical signature, and (2) the relative concentrations and/or ratios of the individual compounds can be used to differentiate sources.

Congener profiles (i.e., the relative amounts or ratios of individual congeners or congener groups) can be used as a line of evidence to differentiate unique dioxin/furan sources. For example, it is known that RPAC manufactured 2,4,5-trichlorophenoxyacetic acid (2,4,5-T), and that 2,3,7,8-tetrachlorodibenzodioxin (TCDD) is an unavoidable byproduct of its manufacture. Similarly, industrial chloralkali processes, including those used at the Arkema facility, are associated with a signature dominated by furans, particularly 1,2,3,4,7,8-HxCDF, followed by 2,3,7,8-TCDF and 1,2,3,7,8-PeCDF (EPA 2006; ERM 2010). Finally, dioxin/furans generated by industrial combustion/incineration sources, diesel fuel emissions, and pentachlorophenol (PCP) related sources are dominated by the dioxin congeners OCDD and 1,2,3,4,6,7,8-HpCDD (Cleverly et al. 1997, Ecology 2011).

MFA evaluated the chemical signatures of dioxins/furans in NAPL, soil, and groundwater from the Siltronic property and neighboring sites with available data. The relative proportions of compounds in samples were compared to determine whether proportions indicated the same or dis-similar source(s). For these analyses the data were standardized by calculating the fractional composition of each compound. Figures discussed below show the fraction of each individual dioxin/furan congener as a proportion of the total dioxins/furans, establishing a chemical signature for the dioxins/furans that is independent of the overall mass of dioxins/furans present in a given area. For the purposes of this evaluation, results for individual dioxin/furan congeners that were not detected were evaluated with a value of 0, to eliminate the effect of variable detection limits from the evaluation.

NAPL

MFA evaluated the dioxin/furan composition of NAPL samples collected from the Siltronic property and nearby sites that are known sources of dioxins/furans. NAPL samples collected from monitoring wells WS-43-36 and WS-33-81 are well documented as MGP waste NAPL and are located within the footprint of historical MGP waste disposal areas. Samples from WS-43-36 and WS-33-81 were collected by Siltronic in 2019. NAPL chemical composition data is presented in Table 1.

The NAPL sample from PZ-03-40 was collected by RPAC in 2006 as part of their RI/SCE investigation activities and is located at the southwestern corner of the SOU. Although this sample was collected outside the footprint of known historical MGP waste disposal activities, the available data indicates that it is consistent with MGP waste NAPL. The sample is composed primarily of petroleum hydrocarbons and PAHs and is consistent with the composition of known MGP waste from the Gasco site (Table 1). Other chemicals typically detected in NAPL samples from the RPAC property, including chlorobenzenes and xylenes, are not present in this sample from PZ-03-40. Both RPAC and DEQ agree with the interpretation that this sample is consistent with MGP waste NAPL located on the Gasco site. (AMEC 2010; DEQ 2008)

Dioxin/furan signatures from the available NAPL samples are presented in Figure 5. While comparatively few NAPL samples have been evaluated for dioxin/furan concentrations, these samples are the most representative of the waste materials originally produced by the Gasco and RPAC facilities. The dioxin/furan NAPL samples presented in Figure 5 are presented according to the original source material (i.e. MGP waste NAPL located on or adjacent to the Siltronic property, and NAPL samples collected as part of the RPAC RI/SCE). The samples of NAPL associated with wastes from the RPAC facility contained varied signatures, but typically contain comparatively higher proportions of TCDD and 1,2,3,4,6,7,8-HpCDF, as well as detections of a much wider range of other dioxin/furan congeners. The high proportion of TCDD is consistent with the historical manufacture of

2,4,5-T at the RPAC facility, and the varied signature is consistent with previous conclusions that because the RPAC facility manufactured and formulated chemicals besides 2,4,5-T, that are also likely or known sources of dioxins/furans, there is no single congener profile from this facility (DEQ 2015).

The signature of dioxins/furans present in MGP waste NAPL is consistent, and it is distinct from the signature of dioxins associated with RPAC waste NAPLs. Dioxins/furans present in MGP waste NAPL are dominated by OCDD and 1,2,3,4,6,7,8-HpCDD and to a lesser degree OCDF, with few detections of other dioxin/furan congeners and little variability between samples. This signature is similar to known dioxin/furan signatures associated with multiple sources, including but not limited to burning of heavy fuel oil, contamination in commercial-grade PCP, diesel fuel emissions, and industrial wood combustors (Cleverly et al. 1997). Many of these sources involve combustion processes or materials similar to those utilized in the historical gas manufacturing processes at the Gasco facility.

MFA reviewed analytical data to determine if the dioxins/furans present in the MGP waste NAPL could be associated with an unknown historical source of PCP. No PCP is detected in any of the MGP waste NAPL samples, nor is PCP detected in soil or groundwater in the vicinity of the MGP waste NAPL samples. The complete absence of PCP present in or near the MGP waste NAPL samples is a compelling line of evidence that PCP is not the source of the observed dioxins/furans.

Additionally, several other compelling lines of evidence exist that demonstrate PCP is likely not a source of the dioxins/furans observed in OCDD- and HPCD-dominated NAPL on the Siltronic property. First, PCP has a distinctive signature with the lower-chlorinated dioxins. When PCP signatures are viewed on a logarithmic scale, a clear, repeatable pattern is observed: congeners increase by an order of magnitude as a function of the degree of chlorination (Johnson 2017). PCP signatures appear similar to those from vehicle emissions and combustion products, when viewed in a linear-scale bar graph, but in a logarithmic scale plot the stepwise order-of-magnitude increase in concentration of the lower-chlorinated congeners (increasing from tetra, to penta, to hexa-dioxins/furans) is evident compared to the other sources in which these congeners are within the same order of magnitude as shown in Figure 6. (Johnson 2017).

Second, as can also be seen in Figure 6, the percentages of tetra-, penta-, and hexa- dioxin/furan concentrations for the MGP NAPL samples are within the same order of magnitude, which differs from the stepwise order-of-magnitude increases evident in the Johnson's plots for PCP. In addition, the concentration percentages of OCDF; 1,2,3,4,6,7,8-heptachlorodibenzofuran (HpCDF); and 1,2,3,4,7,8,9-HpCDF in the MGP NAPL samples are each one to two orders of magnitude less than that of PCP. Similarly, 1,2,3,6,7,8-hexachlorodibenzofuran (HxCDF); 2,3,4,6,7,8-HxCDF; 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin (HxCDD); 1,2,3,7,8,9-HxCDD, and all of the tetra- and penta- PCDD/F congeners in the MGP NAPL samples have percentages of at least an order of magnitude greater than that of PCP. For example, OCDF accounts for approximately 10 percent of all congeners in PCP, but accounts for only approximately 1 percent in the MGP NAPL samples.

As noted above, the dioxin/furan signature observed in the MGP waste NAPL is also similar to the signature observed in multiple sources related to petroleum hydrocarbons and combustion processes, and similar signatures are often observed in samples collected in urban stormwater. It is unlikely that dioxins/furans present in the MGP waste are related to ambient urban sources, since the MGP NAPL samples were collected at significant depths (up to approximately 80 feet below ground surface), and there are no documented pathways for the MGP NAPL to have been exposed to urban stormwater. It is similarly unlikely that the dioxins/furans present in the MGP waste NAPL are associated with dioxins/furans present in the Fill soils. The same signature is observed in MGP NAPL

samples that are located within the Fill (at WS-43-36) and within the Alluvium (WS-33-81), and the MGP NAPL present in the Alluvium did not migrate through the Fill soils.

Finally, the non-normalized concentrations of dioxins/furans measured in NAPL samples are presented in Figure 7. As Figure 7 illustrates, while dioxins/furans are not a primary component of the MGP waste NAPL, they are present at concentrations comparable to those measured in many of the RPAC NAPL samples, and these concentrations are substantial enough that MGP waste should be considered as a source of dioxins/furans to other media, including soil and groundwater.

Soil

Dioxin/furan chemical signatures for soil are shown in Figure 8. While there is substantial variability in the dioxin/furan signatures observed in individual soil samples, the mean dioxin/furan signatures presented in Figure 8 provide a view of the dominant dioxin/furan congeners for each property. Soil samples collected on both the SOU and GOU portions of the Siltronic property are dominated by OCDD and 1,2,3,4,6,7,8-HpCDD, as well as smaller but still significant proportions of OCDF, all consistent with the signature observed in MGP waste NAPL. There are also small proportions of other dioxin/furan congeners, including 1,2,3,4,6,7,8-HpCDF and 1,2,3,4,7,8-HxCDF. In contrast, the dioxin/furan signatures present on the RPAC property, and the Gould and BNSF properties immediately downgradient of the RPAC property, include substantially higher proportions of TCDD and TCDF. Finally, the dioxin/furan signature in soil samples collected from the Arkema property are dominated by a variety of furan congeners, as opposed to dioxin congeners.

No soil samples with dioxin/furan results were previously co-located with the NAPL samples evaluated, so MFA was not able to evaluate dioxin/furan signatures in soil associated with NAPL with documented dioxin/furan content. As an additional line of evidence, Figure 9 shows the dioxin/furan signatures of selected soil samples that were collected from depth intervals that were visibly impacted by NAPLs or other waste materials. Samples collected from the RPAC property contain high proportions of TCDD, as well as OCDF and 1,2,3,4,6,7,8-HpCDF. Soil samples impacted by MGP waste NAPL collected from the Siltronic property contain the same dioxin signatures as is observed in the MGP waste NAPL samples.

The dioxin/furan signatures present in soil samples are consistent with the existing understanding of the multiple sources of dioxins in the area. The signature present on the Siltronic property supports the conclusion that MGP waste is a separate source of dioxins/furans, which is distinct from, and unrelated to, the RPAC and Arkema facilities.

Groundwater

Although dioxins/furans are hydrophobic compounds, colloid-facilitated transport of dioxins/furans in groundwater is a complete pathway which is often overlooked, and investigations that neglect to evaluate colloid-facilitated transport will substantially underestimate transport of these hydrophobic compounds in groundwater (Fan et al 2006). The upland groundwater dioxin/furan sample composition is shown in Figure 10. Groundwater samples collected on both the SOU and GOU portions of the Siltronic property are dominated by OCDD and 1,2,3,4,6,7,8-HpCDD, as well as smaller but still significant proportions of OCDF, consistent with the signature observed in MGP waste NAPL. There are also small proportions of other dioxin/furan congeners, including 1,2,3,4,6,7,8-HpCDF and 1,2,3,4,7,8-HxCDF. Groundwater samples from the SOU have a slightly higher proportion of these other congeners than samples from the GOU. In contrast, the dioxin/furan signatures present on the RPAC and Gould properties include substantially higher proportions of TCDD and TCDF. The groundwater signatures on the BNSF property and the Arkema property are

different than the dioxin/furan signatures present in soil on these sites. Groundwater at BNSF is dominated by OCDF, with few contributions from other congeners. Groundwater on the Arkema site is dominated by OCDD, with small proportions of many other congeners. As discussed above, there are many potential dioxin/furan sources that are dominated by OCDD, and the groundwater samples collected from the Arkema site contain small but significant contributions from many other furan congeners that are not observed in groundwater on the SOU or GOU.

Figure 11 presents the dioxin/furan signature of groundwater samples co-located with MGP waste NAPL, as well as the signature of groundwater collected from monitoring well PW-2L, which accumulates substantial quantities of MGP waste NAPL. All these groundwater samples contain the same signature observed in MGP waste NAPL.

Summary

Several documented and potential sources of dioxins/furans are present on or near the Siltronic property. Limited investigations at MGP sites have been performed for dioxins/furans as a contaminant of interest at these types of sites, leading to the erroneous conclusion that dioxins/furans are not associated with MGP wastes. However, based on a review of scientific studies, the Gasco facility's historical MGP operations had the requisite conditions for generating dioxins/furans. In addition, multiple lines of evidence support the conclusion that the Gasco Facility has released dioxins/furans into the environment. These include:

- Dioxins/furans are present in the MGP waste NAPL;
- The MGP waste NAPL has a dioxin/furan signature that is OCDD and -1,2,3,4,6,7,8-HpCDD dominant;
- This OCDD and -1,2,3,4,6,7,8-HpCDD signature is also observed in soil and groundwater samples collected from the Siltronic property; and
- The signature observed in MGP waste NAPL is distinct from the signatures associated with known sources of dioxins/furans at the neighboring RPAC and Arkema facilities.

The findings of this evaluation indicate that dioxins/furans are a contaminant of interest for MGP activities at the Gasco facility, and a source of dioxin/furan contamination across the Siltronic property.

Attachments

Limitations

References

Figures

Tables

Appendix A

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

References

AMEC. 2010. *RI/SCE Report, RP - Portland Site, Portland, Oregon*. AMEC Earth & Environmental, Inc. November 19.

Anchor. 2019. Jen Mott, Anchor QEA, LLC. *Gasco: Groundwater Quality Database September/October 2018*. Email to Dana Bayuk, Oregon Department of Environmental Quality. February 8.

Cleverly, David, John Schaum, Gregory Schweer, Jonathan Becker, and Dwain Winters. 1997. The congener profiles of anthropogenic sources of chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in the United States. presentation at Dioxin '97, the 17th International Symposium on Chlorinated Dioxins and Related Compounds, held August 25-29 in Indianapolis, IN, USA. Short paper in, Organohalogen Compounds, Volume 32:430-435.

DEQ. 2008. *DEQ Review of Northwest Drainage Pond Sampling Data Submittal.* Oregon Department of Environmental Quality. December 17.

DEQ 2015. *Rhone-Poulenc Remedial Investigation Report: Addendum– RI/SCE Report (November 19, 2010)*. Oregon Department of Environmental Quality. April.

Ecology. 2011. *Rayonier Mill Off-Property Soil Dioxin Study. Final Public Report, Public Review Draft.* Washington State Department of Ecology, Toxics Cleanup Program. June.

EPA. 1997. *Locating and Estimating Air Emissions from Sources of Dioxins and Furans*. Office of Air Quality Planning And Standards Office of Air And Radiation. May. https://www3.epa.gov/ttnchie1/le/dioxin.pdf

EPA. 2006. *An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the United States for the Years 1987, 1995, and 2000*. Environmental Protection Agency, National Center for Environmental Assessment Office of Research and Development. November. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=159286

ERM. 2010. *Data gaps investigation report. Arkema, Inc. Facility. Portland, Oregon*. Environmental Resources Management. June.

Fan, Zhaosheng, Francis X.M. Casey, Gerald L. Larsen, and Heldur Hakk. 2006. "Fate and Transport of 1278- TCDD, 1378-TCDD, and 1478-TCDD in Soil-Water Systems." *Science of the Total Environment,* 371 (August): 323-333. https://naldc.nal.usda.gov/download/10136/PDF

Golder. 2018. *Feasibility Study Data Gaps Report, Former Rhone-Poulenc Site, Portland, Oregon*. Golder Associates, Inc. December.

HAI. 2007. *Remedial Investigation Report, NWN – Gasco Facility*. Hahn and Associates, Inc. April 30.

Hall. E. L. 1941. "Aromatics, Gas and Coke from Heavy Petroleum Residues." *Chemical & Metallurgical Engineering.* Volume 48, no. 9 (September): 100–105. Accessed June 15, 2023. https://archive.org/details/sim_chemical-engineering_1941-09_48_9/page/n31/mode/2up

Hites, R. A. 2011. "Dioxins: An Overview and History." *Environmental Science & Technology,* 45 (1): 16-20. September 3. https://pubs.acs.org/doi/10.1021/es1013664

Institute of Medicine (US) Committee on the Implications of Dioxin in the Food Supply. 2003. *Dioxins and Dioxin-like Compounds in the Food Supply: Strategies to Decrease Exposure*. National Academies Press. Washington, DC. https://www.ncbi.nlm.nih.gov/books/NBK221720/

Johnson, Glenn. (2017). "Chlorinated Dioxin and Furan Congener Profiles from Pentachlorophenol Sources." Journal of Environmental Protection. 08: 663-677. https://doi.org/10.4236/jep.2017.86043

Legacy Site Services. 2010. *Letter re: review and evaluation of historical source information and assessment of historical connections to Doane Lake, Doane Creek, and Saltzman Creek, Former Rhône Poulenc Portland Site ECSI Nos. 36 and 155)* to D. Lacey, Oregon Department of Environmental Quality, from T. Slater, Legacy Site Services LLC. February 25.

MFA. 2016. *Revised Remedial Investigation Proposal, Siltronic property, Portland, Oregon*. December 1.

MFA. 2023. *Siltronic Operable Unit Remedial Investigation Data Summary Report*. March 31.

Mitchell, K. E. 1998. United States Patent. No. 5,746,908. May 5. https://patentimages.storage.googleapis.com/34/f8/15/1455855c234e92/US5746908.pdf

Speight, J. G. 2022. *Dewatering, Desalting, and Distillation in Petroleum Refining*. CRC Press, Boca Raton, FL. December. https://doi.org/10.1201/9781003184959

Walker, W. J and S. L Huntley. 1997. "A literature review of formation and release of PCDD/Fs from gas manufacturing: A previously unidentified source?" *Chemosphere.* Volume 35, no. 7 (October): 1409-1422. https://doi.org/10.1016/S0045-6535(97)00214-2

Figures

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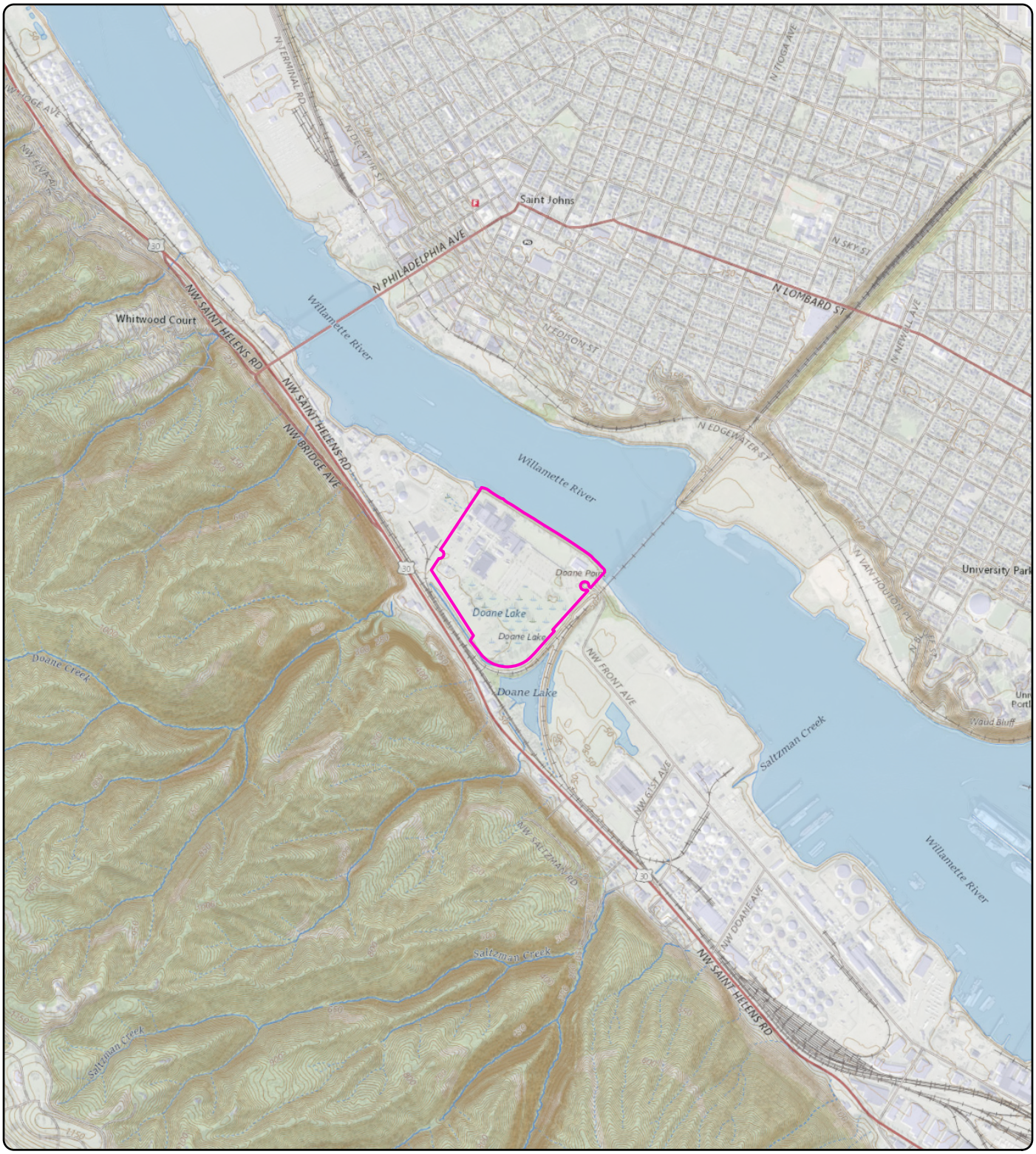

Notes
U.S. Geological Survey 7.5-minute topographic quadrangle (2020): Linton and Portland.
Township 1 north, range 1 west, section 13.
MGP = manufactured gas plant.

Data Source
Property boundary obtained from Oregon Metro.

Legend

Siltronic Property

Figure 1
Property Location

MGP Dioxin/Furan Evaluation
Portland, OR

0 1,000 2,000
Feet

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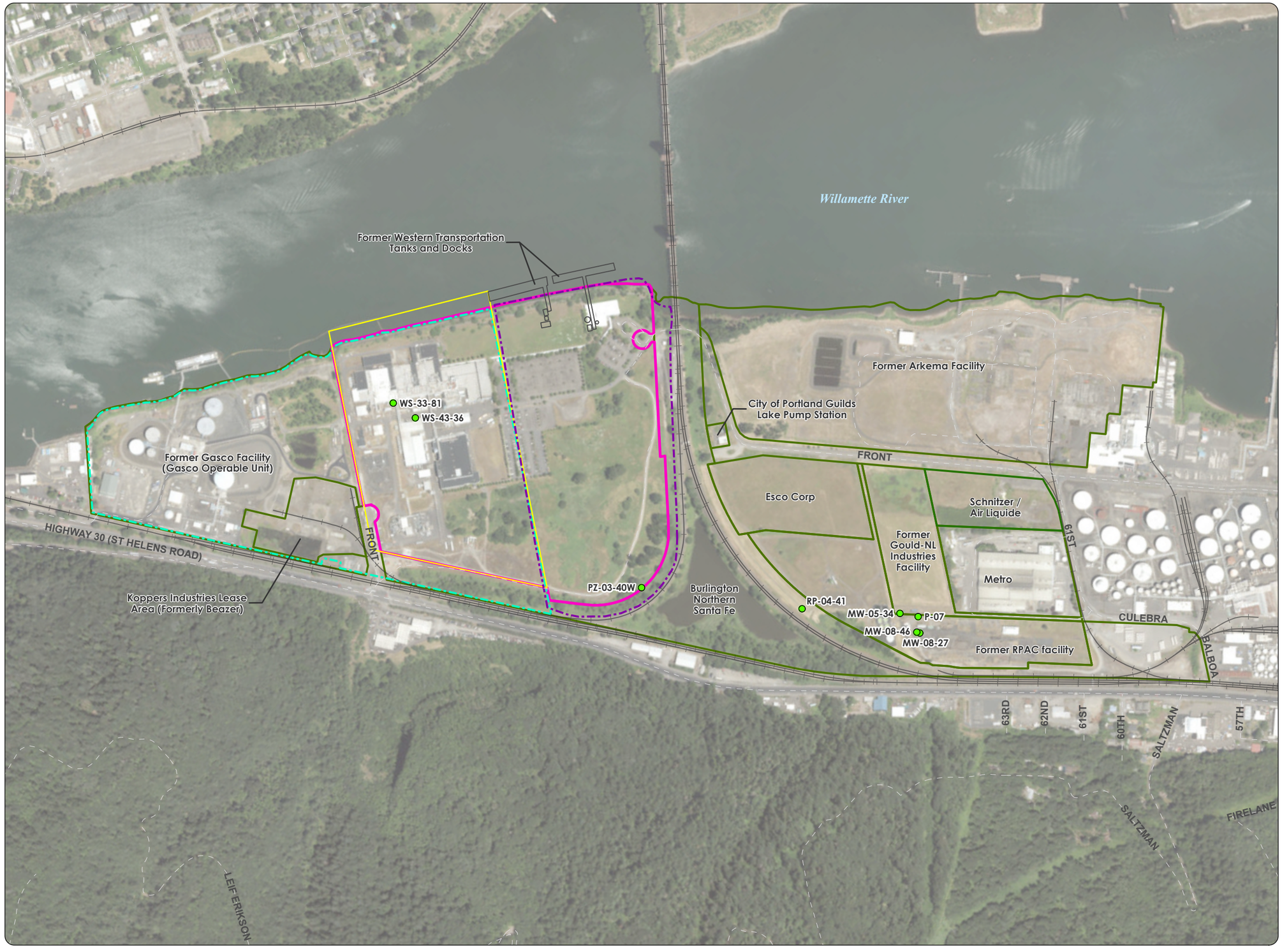
Path: X:\8128.02 Siltronic Corp\07\03\Pro\M8128_02_007_003_Dioxin_Memorandum.aprx\Fig 1-1 Property Location
Print Date: 7/13/2023
Reviewed By: ahackett
Produced By: sturner
Project: M8128.02.007

Figure 2
NAPL Sample Locations

MGP Dioxin/Furan Evaluation
Portland, OR



Legend

- NAPL Sample
- SOU
- Allen Tract Boundary
- Gasco Operable Unit (Approximate)
- Siltronic Property
- Neighboring Property

Notes
MGP = manufactured gas plant.
NAPL = nonaqueous phase liquid.
SOU = Siltronic operable unit.

0 600
Feet

Data Sources
Aerial photograph obtained from the City of Portland; property boundary, streets and railroads obtained from Oregon Metro; SOU Boundary dated September 30, 2016, provided by Oregon Department of Environmental Quality.

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Print Date: 7/13/2023
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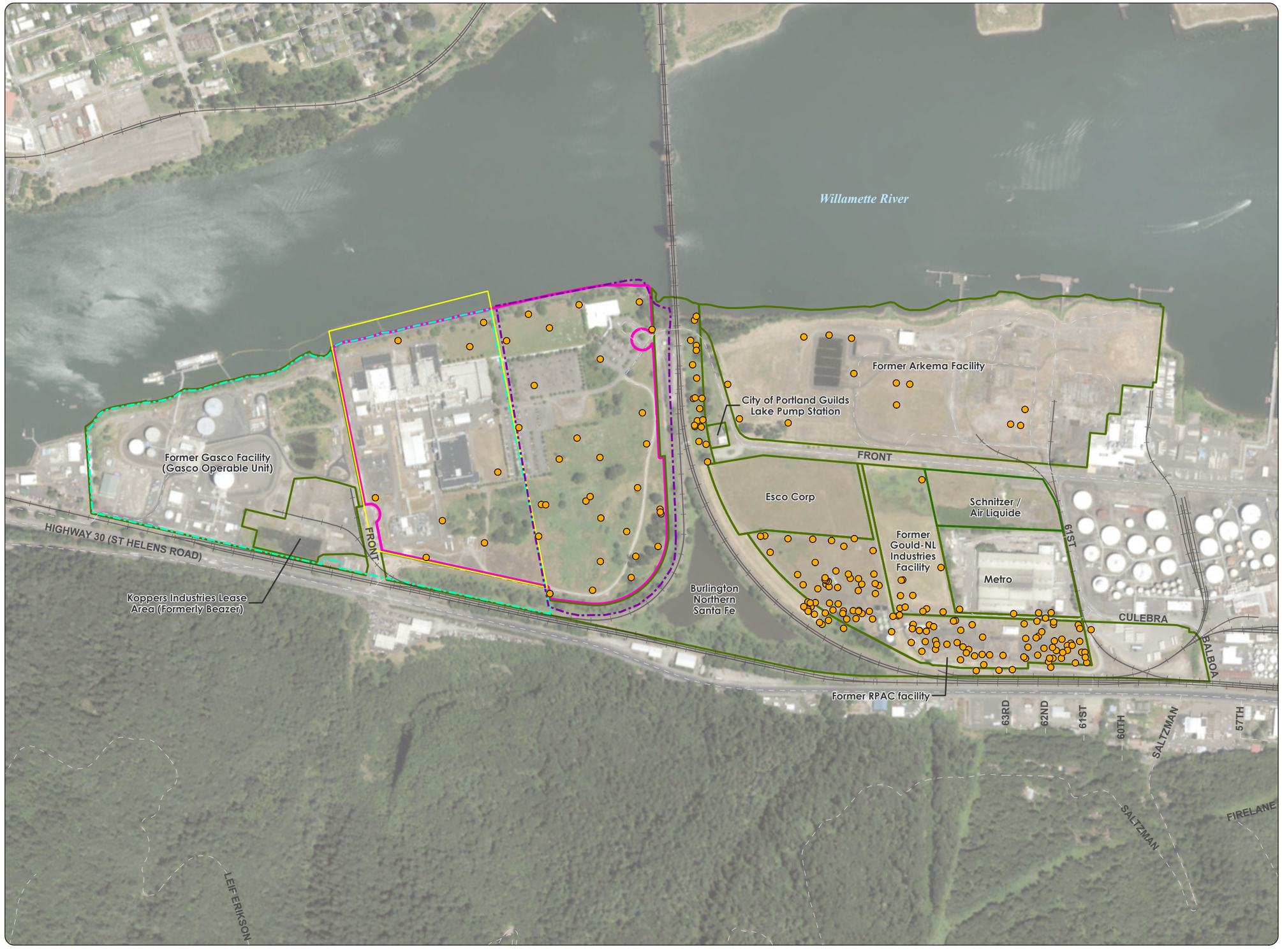
Produced By: stumer
Project: M8128.02.007

Figure 3
Soil Sample Locations

MGP Dioxin/Furan Evaluation
Portland, OR



Legend

- Soil Sample
- SOU
- Allen Tract Boundary
- Gasco Operable Unit (Approximate)
- Neighboring Property
- Siltronic Property

Notes
MGP = manufactured gas plant.
SOU = Siltronic operable unit.

0 600
Feet

Data Sources
Aerial photograph obtained from the City of Portland; property boundary, streets and railroads obtained from Oregon Metro; SOU Boundary dated September 30, 2016, provided by Oregon Department of Environmental Quality.

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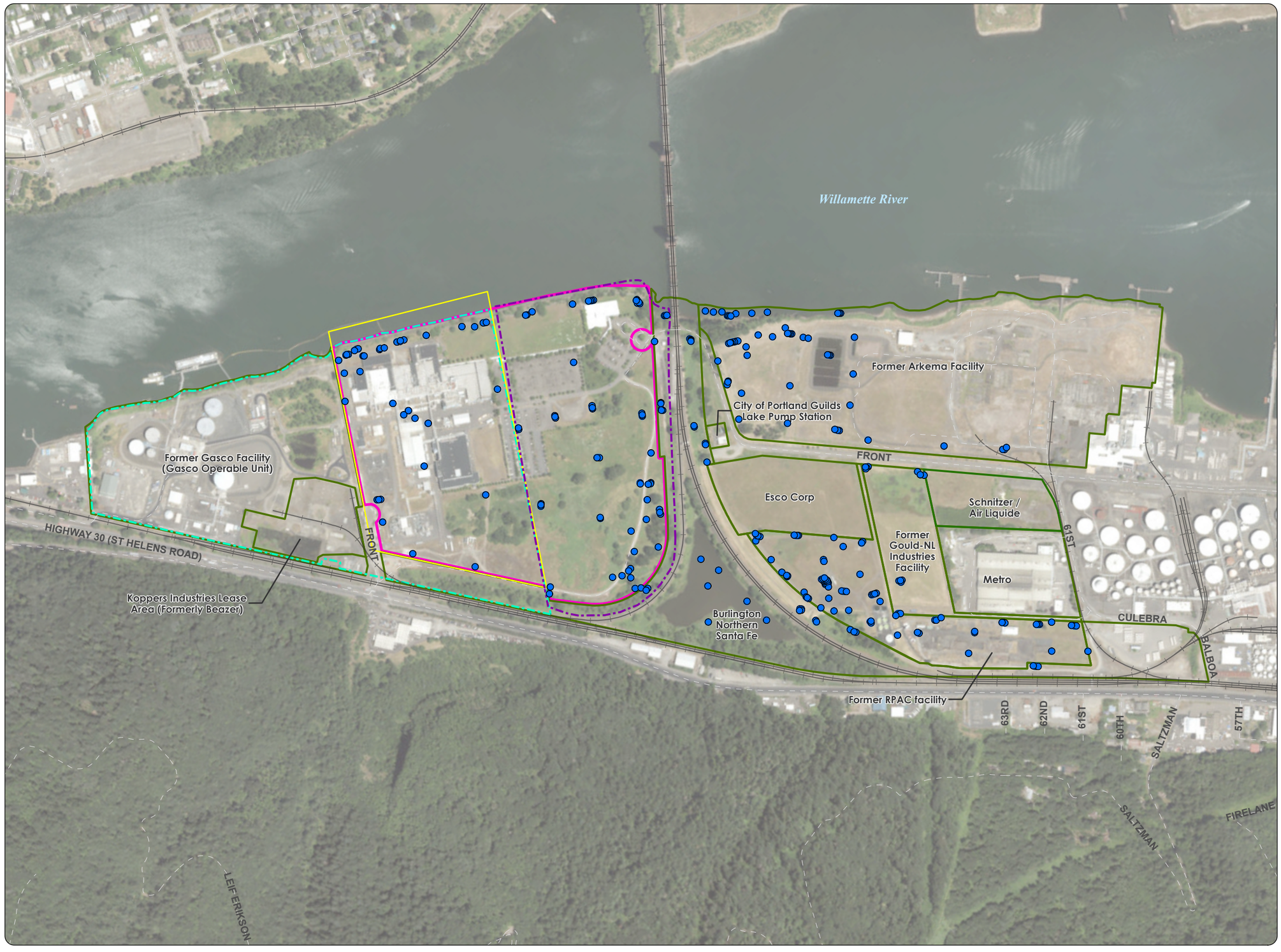
Path: X:\8128.02 Siltronic Corp\07-03\Pro\M8128_02_007_003_Dioxin_Memorandum.aprx\Fig 3 Soil Sample Locations
Print Date: 7/13/2023
Reviewed By: ahackett
Produced By: sturner
Project: M8128.02.007

Figure 4
Groundwater Sample Locations

MGP Dioxin/Furan Evaluation
Portland, OR



Legend

- Groundwater Sample
- SOU
- Allen Tract Boundary
- Gasco Operable Unit (Approximate)
- Neighboring Property
- Siltronic Property

Notes
MGP = manufactured gas plant.
SOU = Siltronic operable unit.

0 600
Feet

Data Sources
Aerial photograph obtained from the City of Portland; property boundary, streets and railroads obtained from Oregon Metro; SOU Boundary dated September 30, 2016, provided by Oregon Department of Environmental Quality.

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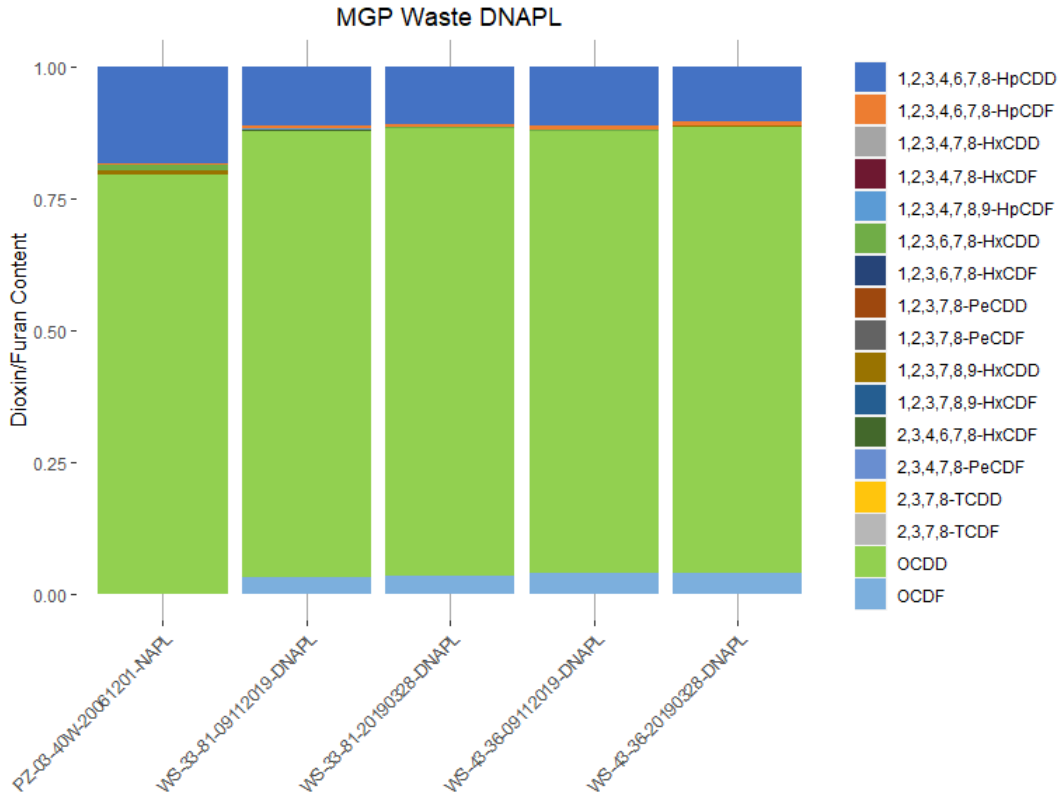
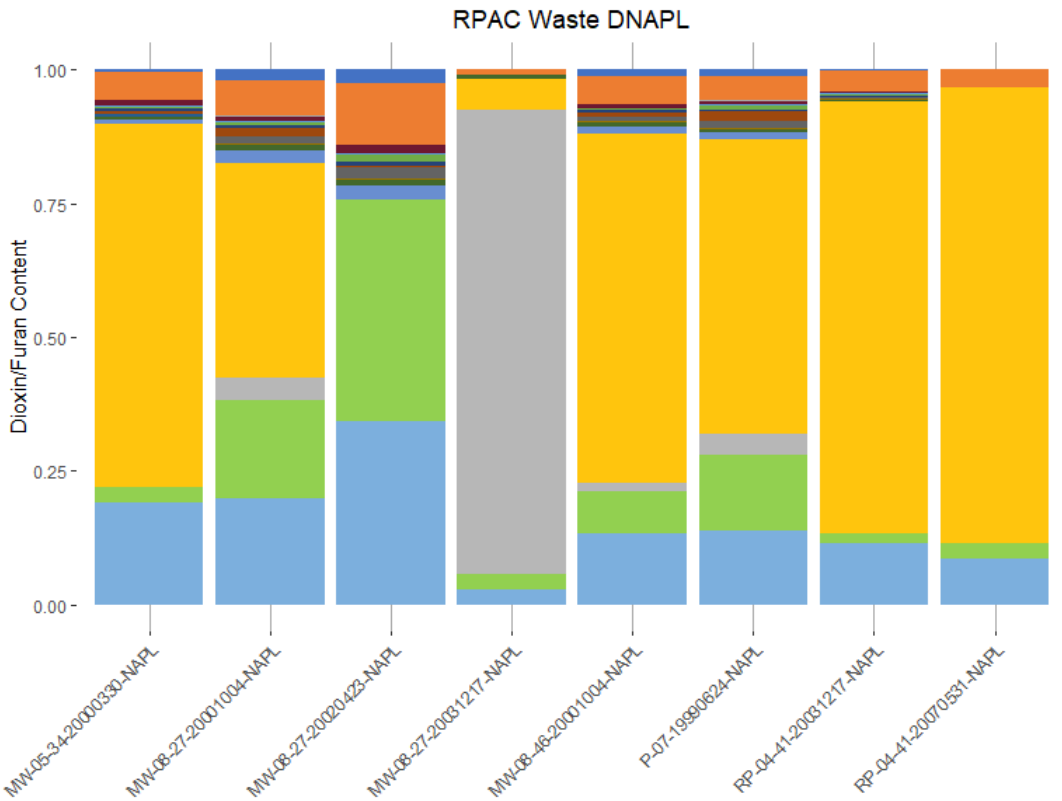
p. 971 544 2139 | www.maulfoster.com

Path: X:\8128.02 Siltronic Corp\07\03\Pro\M8128_02_007_003_Dioxin_Memorandum.aprx\Fig 4 Groundwater Sample Locations
Print Date: 7/13/2023
Reviewed By: ahackett
Produced By: stumer
Project: M8128.02.007

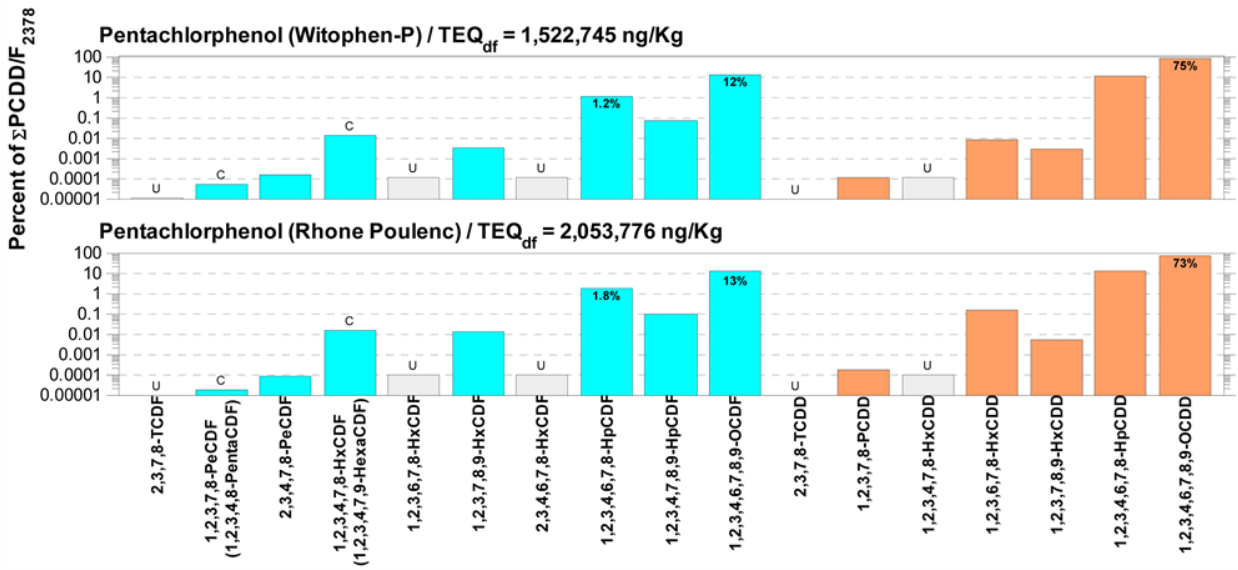
Figure 5
NAPL Dioxin/Furan Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



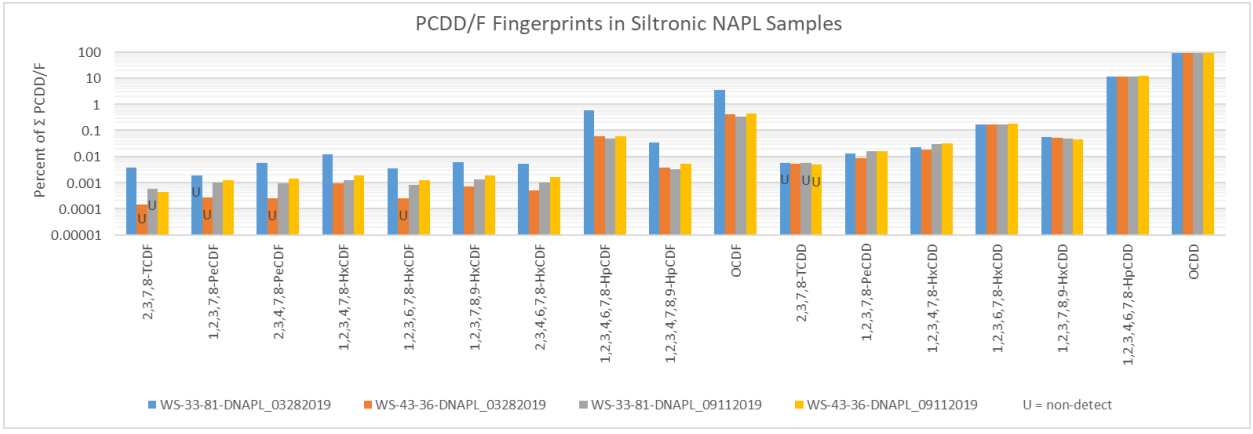


Notes:
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid

Figure 6
Pentachlorophenol Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



Excerpted chart from Johnson 2017: Chlorinated Dioxin and Furan Congener Profiles from Pentachlorophenol Sources

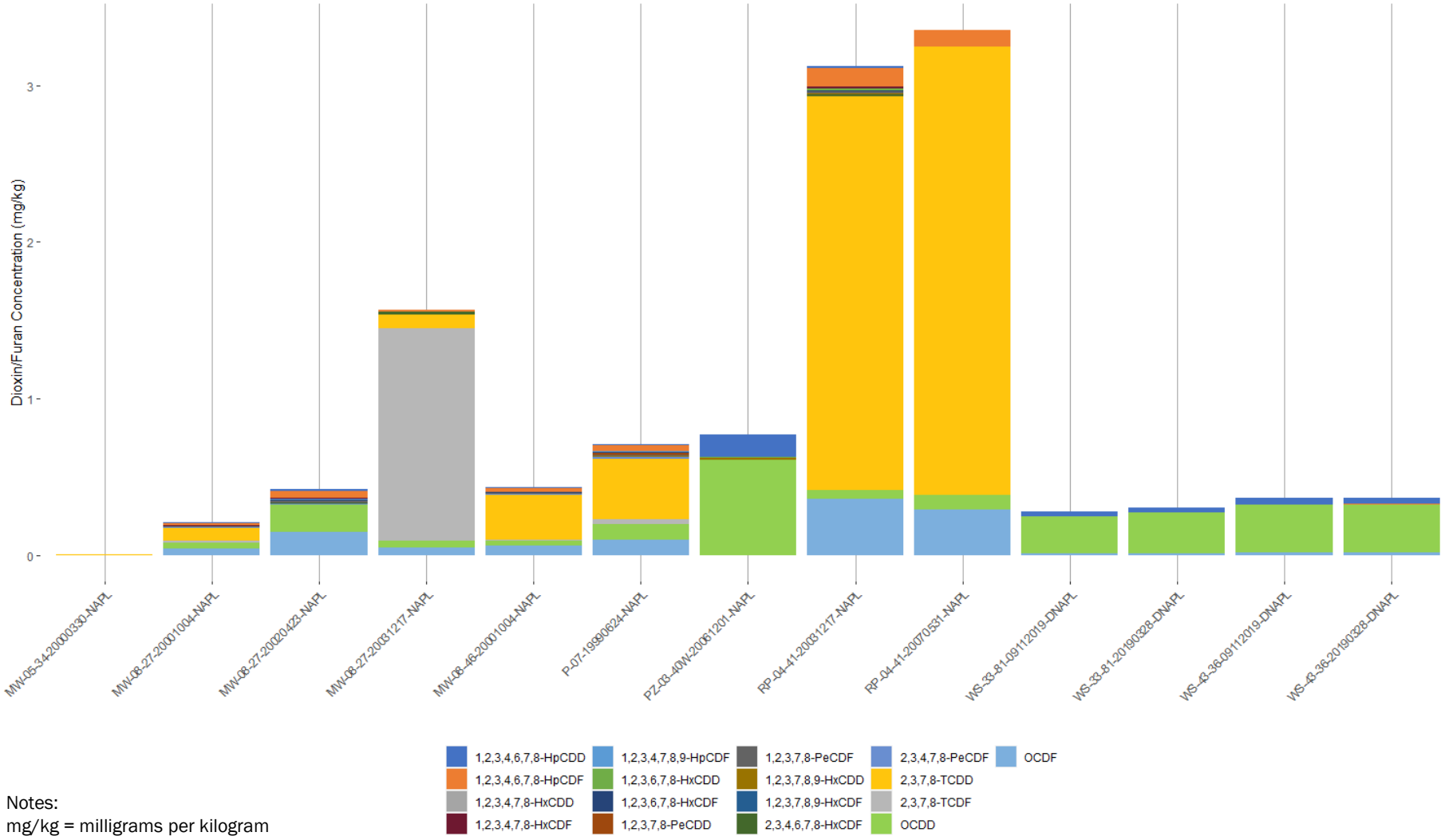


Siltronic Operable Unit NAPL dioxin/furan concentrations.

Figure uses data from Table 1, Figure 3, following the plotting methodology set forth in Johnson 2017.

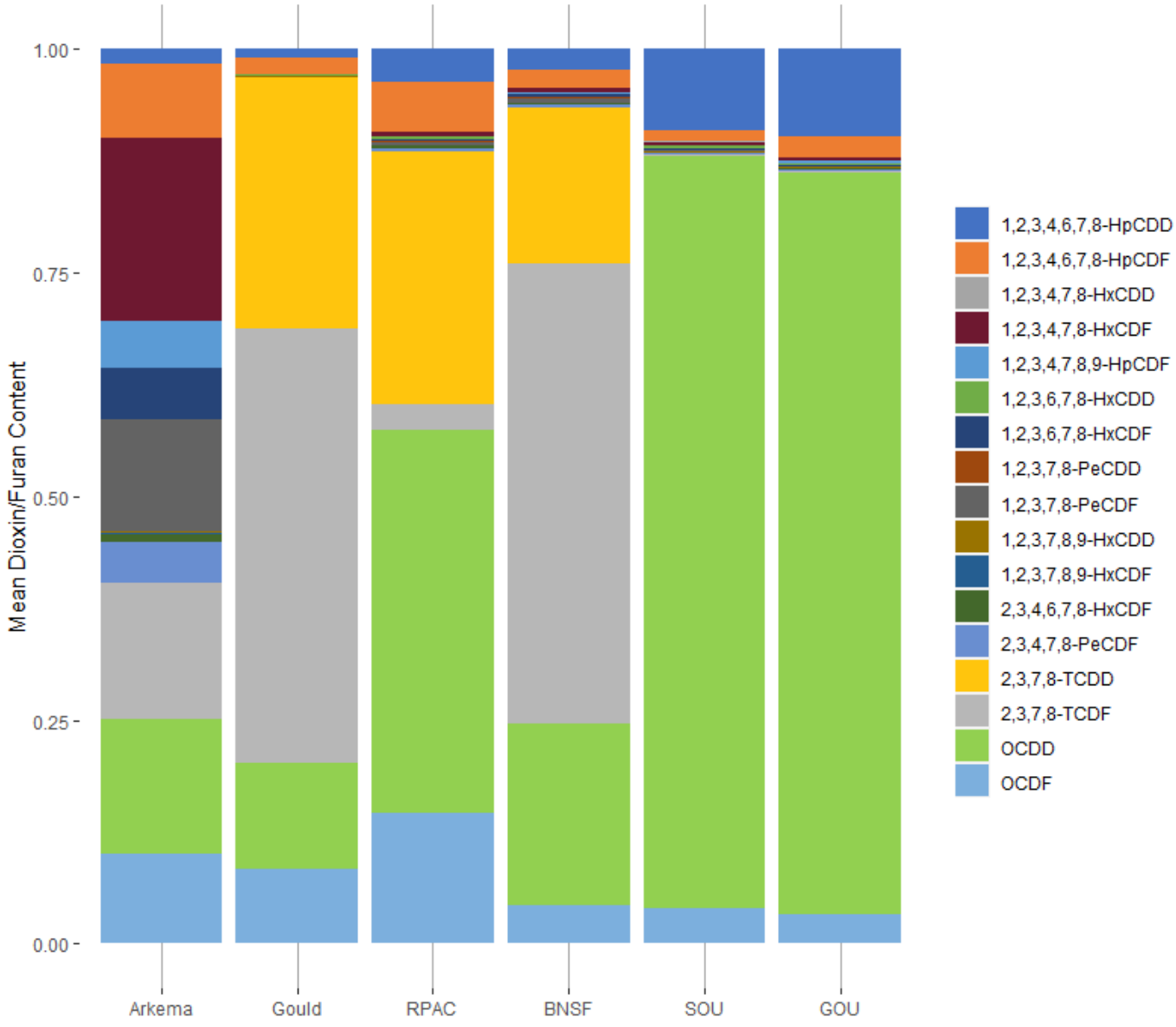
Notes:
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid
TEQ = toxicity equivalency factor

Figure 7
Dioxin/Furan Concentrations in NAPL
MGP Dioxin/Furan Evaluation
Portland, Oregon



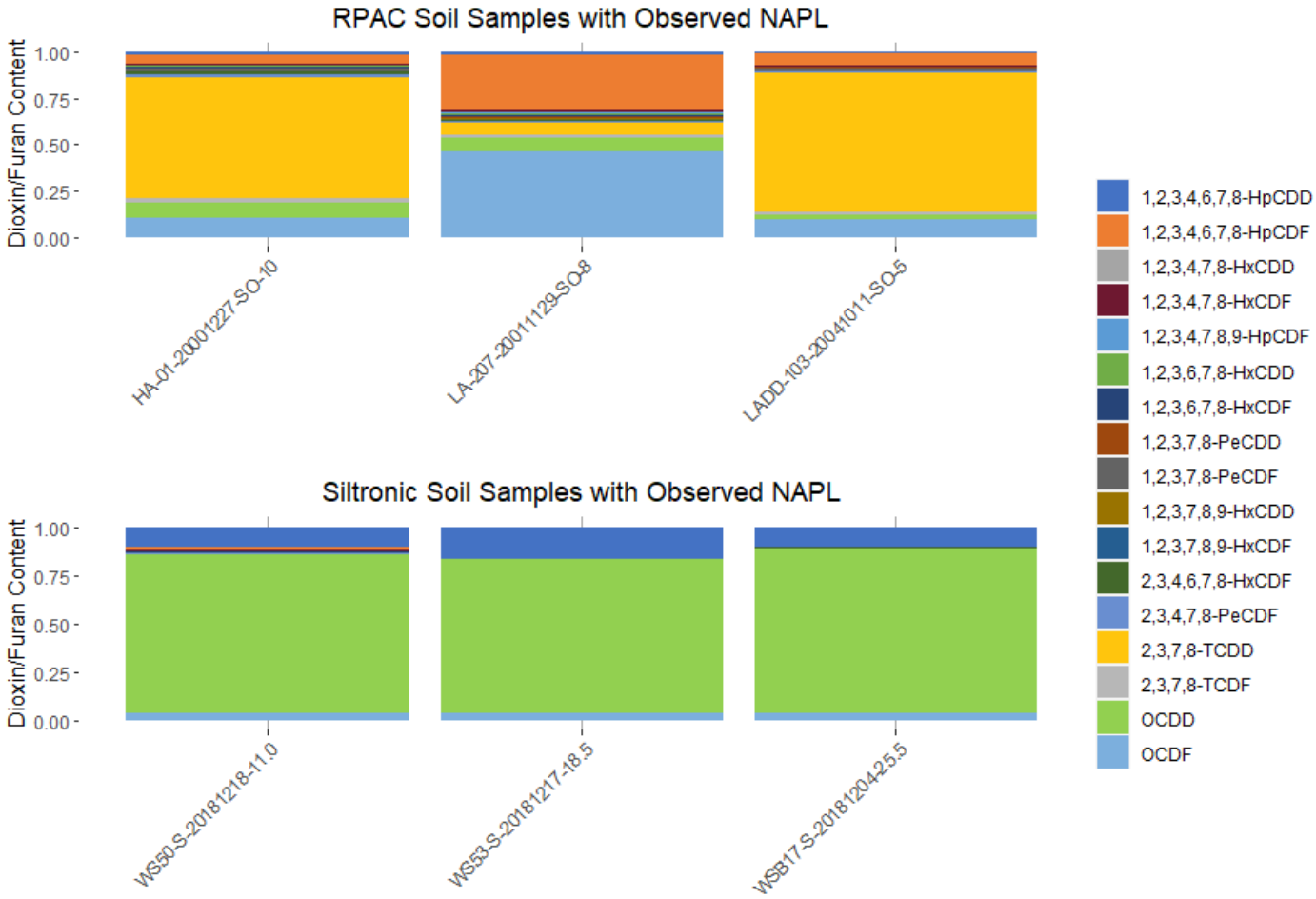
Notes:
mg/kg = milligrams per kilogram
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid

Figure 8
Soil Dioxin/Furan Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



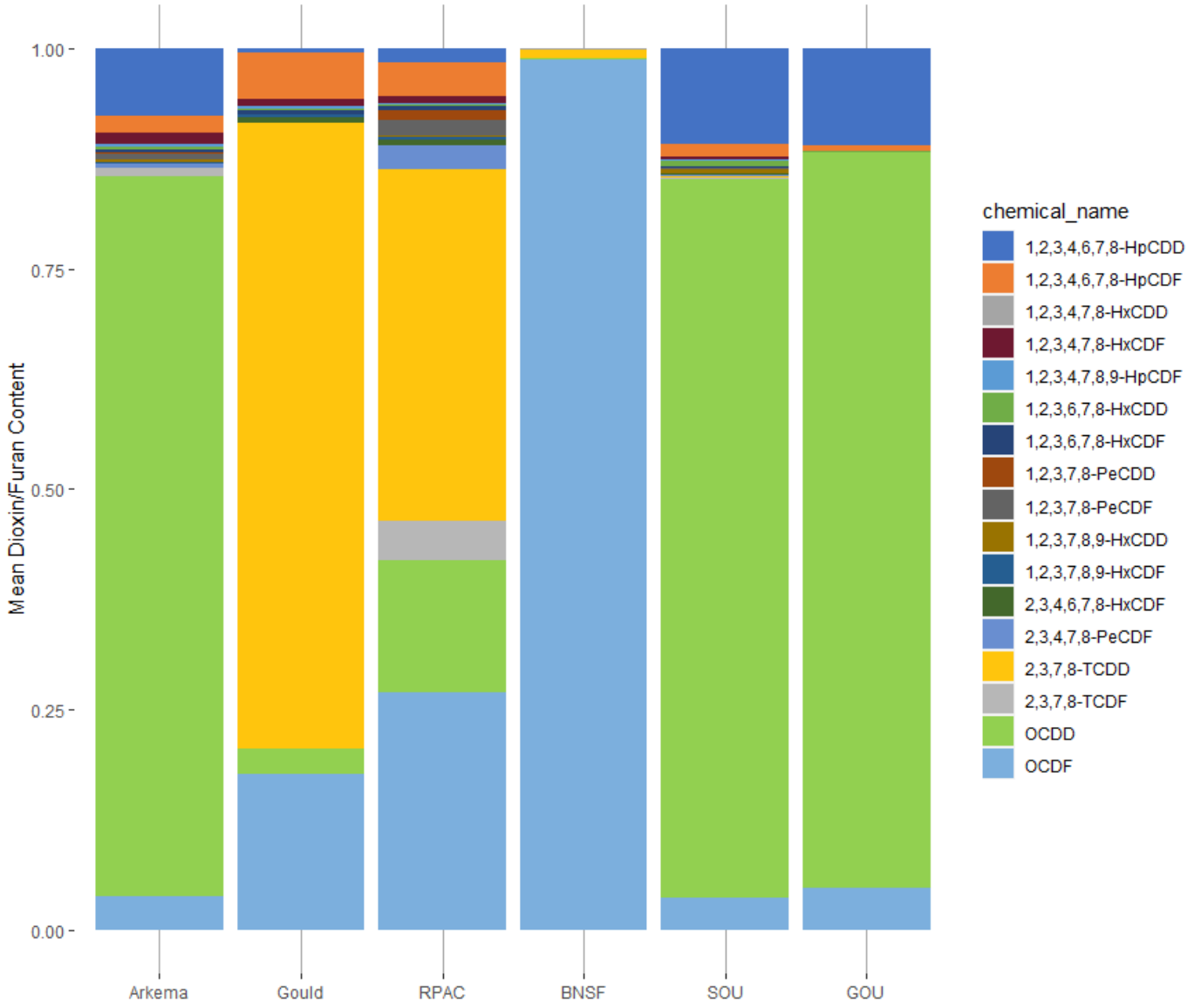
Notes:
BNSF = Burlington Northern Santa Fe
GOU = Gasco Operable Unit
MGP = manufactured gas plant
RPAC = Rhone Poulenc Site
SOU = Siltronic Operable Unit

Figure 9
Soil Dioxin/Furan Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



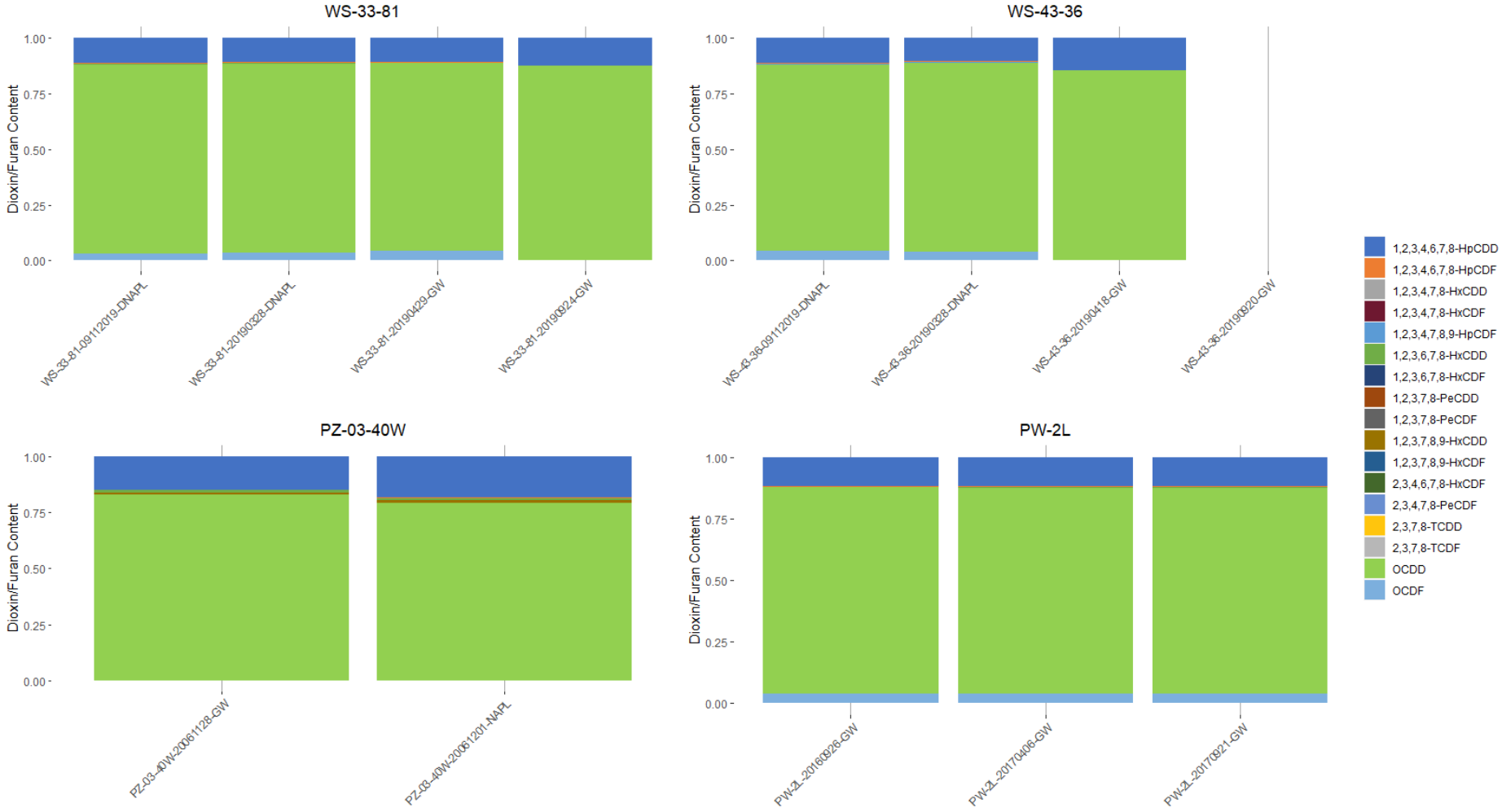
Notes:
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid
RPAC = Rhone Poulenc Site

Figure 10
Groundwater Dioxin/Furan Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



Notes:
BNSF = Burlington Northern Santa Fe
GOU = Gasco Operable Unit
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid
RPAC = Rhone Poulenc Site
SOU = Siltronic Operable Unit

Figure 11
Groundwater and NAPL Dioxin/Furan Signatures
MGP Dioxin/Furan Evaluation
Portland, Oregon



Notes:
MGP = manufactured gas plant
NAPL = non-aqueous phase liquid

Tables

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Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
Dioxins/Furans (pg/g)									
1,2,3,4,6,7,8-HpCDD	10,000 J	111,000 U	31,500	33,100	41,200	38,100	5.35 J	4,000	11,000
1,2,3,4,6,7,8-HpCDF	118,000	110,000 J	1,330	1,690	2,030	2,050	78.8 J	14,000	48,000
1,2,3,4,7,8,9-HpCDF	5,000 J	111,000 U	86 J	98 J	180 J	125 J	3.24 J	555	2,000
1,2,3,4,7,8-HxCDD	2,000 U	111,000 U	78.3 J	66.6 J	108 J	62.1 J	0.801 J	168	644
1,2,3,4,7,8-HxCDF	11,000 J	22,000 U	33.5 J	34.2 J	62.7 J	31.4 J	14.9 J	2,000	6,000
1,2,3,6,7,8-HxCDD	9,000 J	111,000 U	439 J	503	622	586	3.85 J	1,000	5,000
1,2,3,6,7,8-HxCDF	9,000 J	16,000 U	21.2 J	10.3 J	43.8 J	8.51 U	7.63 J	1,000	4,000
1,2,3,7,8,9-HxCDD	3,000 J	111,000 U	130 J	161 J	158 J	175 J	1.63 J	471	1,000
1,2,3,7,8,9-HxCDF	8,000 U	157,000 U	34.2 J	17.5 J	65.9 J	24.8 J	4.16 J	65.8 U	142
1,2,3,7,8-PeCDD	14,000 U	44,000 U	43.9 J	37.3 J	54 J	28.5 J	8.7 J	3,000	147
1,2,3,7,8-PeCDF	12,000 J	44,000 U	26.4 J	5.4 U	43.9 J	9.04 U	0.535 UJ	3,000	9,000
2,3,4,6,7,8-HxCDF	12,000 J	24,000 U	26.9 J	15.2 J	58 J	16.8 J	9.7 J	2,000	5,000
2,3,4,7,8-PeCDF	27,000 U	44,000 U	25.2 J	16.5 J	47.9 J	8.38 U	13 J	5,000	11,000
2,3,7,8-TCDD	2,520,000 J	2,860,000	14.9 U	16.6 UJK	16.6 U	18.2 J	1,000 J	83,000 J	196,000 U
2,3,7,8-TCDF	3,000 U	44,000 U	15.9 U	10.7 J	15.1 J	4.93 U	6,000 UJ	9,000 J	--
OCDD	56,000 J	94,000 J	236,000	258,000	305,000	307,000	44.7 J	38,000	174,000
OCDF	356,000	291,000 J	8,730	10,400	15,100	14,200	281 J	41,000 J	145,000
Dioxin/Furan TEQ[a][2]	2,540,000 JT	2,910,000 JT	546 JT	570 JT	730 JT	638 JT	1,620 JT	89,400 JT	203,000 T
Anions (mg/kg)									
Sulfide	--	--	416	20 R	96	22.7	--	--	--
Sulfur	--	--	16,300	12,900 J	33,200	13,900 J	--	--	--
Chlorinated Herbicides (mg/kg)									
2,4,5-T	7.23 U	990 J	0.17 U	1.7 U	0.17 U	1.7 U	224 UJ	--	244
2,4-D	469	23,000	0.2 U	2 U	0.2 U	2 U	447 J	--	50,000
2,4-DB	1,720 J	0.05 U	0.2 U	2 U	0.2 U	2 U	87.5 UJ	--	66.1
4-Nitrophenol	--	--	0.18 U	1.8 U	0.18 U	1.8 U	--	--	0.949 U
Bromoxynil	6.51 UJ	0.001 U	--	--	--	--	151 UJ	--	--
Dalapon	13.5 UJ	0.091 U	--	--	--	--	293 UJ	--	0.949 U
Dicamba	75 UJ	0.002 U	0.15 U	1.5 U	0.15 U	1.5 U	49.6 UJ	--	0.949 U
Dichlorprop	6.69 UJ	0.022 U	0.19 U	1.9 U	0.19 U	1.9 U	48.5 UJ	--	0.949 U
Dinoseb	10.1 UJ	0.024 U	0.19 U	1.9 U	0.19 U	1.9 U	53.6 UJ	--	0.949 U
MCPA	921 UJ	2.5 U	9.93 U	99.3 U	9.93 U	99.3 U	4,510 UJ	--	3,640
MCPP (Mecoprop)	915 UJ	1.6 U	17.9 U	179 U	17.9 U	179 U	5,870 UJ	--	4.08

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
Pentachlorophenol	--	--	0.13 U	1.3 U	0.13 U	1.3 U	--	--	10 N
Silvex	10.6 J	0.002 U	0.21 U	2.1 U	0.21 U	2.1 U	261 UJ	--	0.949 N
Cyanide (mg/kg)									
Total cyanide	--	--	0.148	0.17	0.286	0.425	--	--	--
Conventionals									
Carbon residue from TPH (%)	--	--	33	4.7	25	5.1	--	--	--
Specific gravity (g/cc)	--	--	1.1044	1.098	1.0864	1.099	--	--	--
Viscosity @40C (cST)	--	--	47.4	136	24.5	26.4	--	--	--
Water content (%)	--	--	0.102	0.127	0.481	0.083	--	--	--
Metals (mg/kg)									
Aluminum	--	--	0.0811 UJ	0.969 J	0.46 J+	0.488 J	--	--	--
Antimony	--	--	0.0963 U	0.009 UJ	0.115	0.00629 UJ	--	--	--
Arsenic	--	--	3.18	7.04	3.1	3.24	--	--	--
Barium	--	--	0.0106 J	0.0298 UJ	0.0705 J	0.0242 UJ	--	--	--
Beryllium	--	--	0.00193 U	0.00209 U	0.002 U	0.00195 U	--	--	--
Cadmium	--	--	0.0025 U	0.00271 U	0.0026 U	0.00253 U	--	--	--
Chromium	--	--	0.0783 J	0.179 J	0.0813 J	0.0747 J	--	--	--
Copper	--	--	0.0396 J	1.81	0.0392 J	0.0483 J	--	--	--
Iron	--	--	4.05 J	31.7	4.42 J	5.08 J	--	--	--
Lead	--	--	0.0125 J	0.184	0.013 J	0.0196 J	--	--	--
Manganese	--	--	0.0836 J	0.086 J	0.0969 J	0.0163 J	--	--	--
Mercury	--	--	0.00395 R	0.00118 UJ	0.0047 R	0.00204 UJ	--	--	--
Nickel	--	--	4.64	9.51	4.73	5.41	--	--	--
Selenium	--	--	0.134 J	0.217	0.138 J	0.137 J	--	--	--
Silver	--	--	0.000963 U	0.00104 U	0.00126 J	0.000973 U	--	--	--
Thallium	--	--	0.0721 U	0.078 U	0.0747 U	0.0728 U	--	--	--
Vanadium	--	--	4.27	6.08	4.16	4.71	--	--	--
Zinc	--	--	0.175 J	0.461	0.165 J	0.164 J	--	--	--
Organochlorine Pesticides (mg/kg)									
4,4'-DDD	--	1000 U	0.00263 U	0.00263 U	0.00263 U	0.00263 U	184 UJ	--	3.41 U
4,4'-DDE	--	1000 U	0.00208 U	0.00208 U	0.00208 U	0.00208 U	33.5 UJ	--	3.41 U
4,4'-DDT	--	1000 U	0.0029 U	0.0029 U	0.0029 U	0.0029 U	33.5 UJ	--	3.41 U
Aldrin	--	1000 U	0.00526 U	0.00526 U	0.00526 U	0.00526 U	33.5 UJ	--	1.71 U
alpha-BHC	--	1000 U	0.00872 U	0.00872 U	0.00872 U	0.00872 U	33.5 UJ	--	1.71 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
alpha-Chlordane	--	1600 U	0.00219 U	0.00219 U	0.00219 U	0.00219 U	33.5 UJ	--	--
beta-BHC	--	2800 U	0.00494 U	0.00494 U	0.00494 U	0.00494 U	33.5 UJ	--	1.71 U
beta-Chlordane	--	1000 U	--	--	--	--	33.5 UJ	--	--
Chlordane	--	--	0.2 U	0.2 U	0.2 U	0.2 U	750 UJ	--	17.1 U
delta-BHC	--	1000 U	0.00304 U	0.00304 U	0.00304 U	0.00304 U	33.5 UJ	--	1.71 U
Dieldrin	--	1000 U	0.00164 U	0.00164 U	0.00164 U	0.00164 U	33.5 UJ	--	3.41 U
Endosulfan I	--	1000 U	0.00256 U	0.00256 U	0.00256 U	0.00256 U	33.5 UJ	--	1.71 U
Endosulfan II (beta)	--	1000 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	33.5 UJ	--	3.41 U
Endosulfan sulfate	--	1000 U	0.00196 U	0.00196 U	0.00196 U	0.00196 U	33.5 UJ	--	3.41 U
Endrin	--	1000 U	0.00788 U	0.00788 U	0.00788 U	0.00788 U	33.5 UJ	--	3.41 U
Endrin aldehyde	--	1000 U	0.00299 U	0.00299 U	0.00299 U	0.00299 U	33.5 UJ	--	3.41 U
Endrin ketone	--	1000 U	0.00552 U	0.00552 U	0.00552 U	0.00552 U	33.5 UJ	--	3.41 U
gamma-Chlordane	--	--	0.00206 U	0.00206 U	0.00206 U	0.00206 U	--	--	--
Heptachlor	--	1000 U	0.00482 U	0.00482 U	0.00482 U	0.00482 U	33.5 UJ	--	1.71 U
Heptachlor epoxide	--	1000 U	0.00384 U	0.00384 U	0.00384 U	0.00384 U	33.5 UJ	--	1.71 U
Hexachlorobenzene	--	--	--	--	--	--	50 UJ	--	--
Lindane	--	1000 U	0.00592 U	0.00592 U	0.00592 U	0.00592 U	33.5 UJ	--	1.71 U
Methoxychlor	--	1000 U	0.00382 U	0.00382 U	0.00382 U	0.00382 U	33.5 UJ	--	17.1 U
Toxaphene	--	50,000 U	0.2 U	0.2 U	0.2 U	0.2 U	1,000 UJ	--	171 U
Total Chlordanes[b]	--	1600 UT	0.00219 UT	0.00219 UT	0.00219 UT	0.00219 UT	33.5 UJT	--	--
Total DDD[c]	--	1000 UT	0.00263 UT	0.00263 UT	0.00263 UT	0.00263 UT	184 UJT	--	3.41 UT
Total DDE[d]	--	1000 UT	0.00208 UT	0.00208 UT	0.00208 UT	0.00208 UT	33.5 UJT	--	3.41 UT
Total DDT[e]	--	1000 UT	0.0029 UT	0.0029 UT	0.0029 UT	0.0029 UT	33.5 UJT	--	3.41 UT
Total DDx[f]	--	1000 UT	0.0029 UT	0.0029 UT	0.0029 UT	0.0029 UT	184 UJT	--	3.41 UT

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Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
Organophosphorus Pesticides (mg/kg)									
Bladan	--	--	3 U	3 U	3 U	3 U	--	--	--
Coumaphos	--	--	3 U	3 U	3 U	435 J+	0.02 R	--	--
Demeton	--	--	--	--	--	--	0.02 R	--	--
Demeton-S	--	--	3 U	3 U	3 U	3 U	--	--	--
Diazinon	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Dichlorvos	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Dimethoate	--	--	3 U	3 U	3 U	3 U	--	--	--
Disulfoton	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Dursban (Chloropyrifos)	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Ethoprop	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Fensulfothion	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Fenthion	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Guthion (Azinphos-Methyl)	--	--	30 U	30 U	30 U	30 U	0.02 R	--	--
Methyl parathion	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Mevinphos	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Naled	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Parathion	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Phorate	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Ronnel	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Santox (EPN)	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Stirofos	--	--	3 U	3 U	3 U	3 U	0.04 R	--	--
Sulfotepp	--	--	3 U	3 U	3 U	3 U	--	--	--
Sulprofos (Bolstar)	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Sumitox (Malathion)	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Tetrachlorovinphos	--	--	--	--	--	--	0.02 R	--	--
Tokuthion	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
Trichloronate	--	--	3 U	3 U	3 U	3 U	0.02 R	--	--
PAH Homologs (mg/kg)									
C1-Chrysenes	--	--	4,870 J	2,380 J	5,540 J	1,860 J	--	--	--
C1-Naphthalenes	--	--	74,600 J	12,100 J	75,600 J	9,480 J	--	--	--
C1-Perylenes	--	--	2,900 J	99 J	2,390 J	201 J	--	--	--
C1-Phenanthrenes	--	--	30,000 J	10,500 J	23,900 J	12,600 J	--	--	--
C1-Pyrenes	--	--	16,200 J	8,390 J	13,900 J	6,900 J	--	--	--

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Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
C2-Chrysenes	--	--	1,700 J	978 J	2,130 J	612 J	--	--	--
C2-Naphthalenes	--	--	35,000 J	11,400 J	35,500 J	8,040 J	--	--	--
C2-Perylenes	--	--	50 U	5 U	470 J	63 J	--	--	--
C2-Phenanthrenes	--	--	12,900 J	5,920 J	9,810 J	6,450 J	--	--	--
C2-Pyrenes	--	--	5,030 J	2,180 J	3,990 J	1,920 J	--	--	--
C3-Chrysenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C3-Naphthalenes	--	--	15,000 J	5,260 J	15,900 J	3,900 J	--	--	--
C3-Perylenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C3-Phenanthrenes	--	--	4,490 J	271 J	1,620 J	295 J	--	--	--
C3-Pyrenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C4-Chrysenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C4-Naphthalenes	--	--	14,700 J	639 J	14,800 J	1,060 J	--	--	--
C4-Perylenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C4-Phenanthrenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C4-Pyrenes	--	--	50 U	5 U	50 U	5 U	--	--	--

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Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
C5-Chrysenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C5-Naphthalenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C5-Perylenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C5-Phenanthrenes	--	--	50 U	5 U	50 U	5 U	--	--	--
C5-Pyrenes	--	--	50 U	5 U	50 U	5 U	--	--	--
PCB Aroclors (mg/kg)									
Aroclor 1016	300 U	--	--	--	--	--	40 UJ	--	--
Aroclor 1221	600 U	--	--	--	--	--	80 UJ	--	--
Aroclor 1232	300 U	--	--	--	--	--	140 UJ	--	--
Aroclor 1242	300 U	--	--	--	--	--	80 UJ	--	--
Aroclor 1248	300 U	--	--	--	--	--	600 UJ	--	--
Aroclor 1254	3,000 U	--	--	--	--	--	600 UJ	--	--
Aroclor 1260	300 U	--	--	--	--	--	40 UJ	--	--
Total PCB Aroclors[g]	3,000 U	--	--	--	--	--	600 UJ	--	--
Total PCB Congeners (mg/kg)									
2-MonoCB-(1)	--	--	0.00371	0.00333	0.00332	0.00304	--	--	--
3-MonoCB-(2)	--	--	0.00491	0.00426	0.00424	0.00405	--	--	--
4-MonoCB-(3)	--	--	0.00512	0.00467	0.00574	0.00429	--	--	--
2,2'-DiCB-(4)	--	--	0.00181	0.00133	0.00148 J	0.00103	--	--	--
2,3-DiCB-(5)	--	--	0.000608 U	0.00133	0.000711 U	0.00116	--	--	--
2,3'-DiCB-(6)	--	--	0.00386	0.00181	0.000738 U	0.00169	--	--	--
2,4-DiCB-(7)	--	--	0.000622 U	0.000869	0.000728 U	0.000682 J	--	--	--
2,4'-DiCB-(8)	--	--	0.00343	0.00123	0.00393	0.00149	--	--	--
2,5-DiCB-(9)	--	--	0.000615 U	0.00125	0.000719 U	0.000684 J	--	--	--
2,6-DiCB-(10)	--	--	0.000683 U	0.000543 J	0.0008 U	0.00046 J	--	--	--
3,3'-DiCB-(11)	--	--	0.000668 U	0.000247 U	0.000782 U	0.000197 U	--	--	--
3,4-DiCB-(12)	--	--	0.000637 U	0.000233 U	0.000746 U	0.000185 U	--	--	--
3,4'-DiCB-(13)	--	--	0.000712 U	0.000245 U	0.000833 U	0.000195 U	--	--	--
3,5-DiCB-(14)	--	--	0.000608 U	0.000227 U	0.000712 U	0.00163	--	--	--
4,4'-DiCB-(15)	--	--	0.000996 U	0.000474 U	0.000935 U	0.000406 U	--	--	--
2,2',3-TriCB-(16)	--	--	0.000775 U	0.000381 U	0.000799 U	0.000307 U	--	--	--
2,2',4-TriCB-(17)	--	--	0.000853 U	0.000443 U	0.000879 U	0.000356 U	--	--	--
2,2',5-TriCB-(18)	--	--	0.000942 U	0.000482 U	0.000971 U	0.000388 U	--	--	--
2,2',6-TriCB-(19)	--	--	0.000937 U	0.000494 U	0.000966 U	0.000397 U	--	--	--

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Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
PCBs 20 + 21 + 33	--	--	0.000745 CJ	0.000727 CJ	0.000543 CU	0.000404 CU	--	--	--
2,3,4'-TriCB-(22)	--	--	0.00021 U	0.000181 U	0.000475 U	0.000361 U	--	--	--
2,3,5-TriCB-(23)	--	--	0.00022 U	0.00019 U	0.000497 U	0.000378 U	--	--	--
2,3,6-TriCB-(24)	--	--	0.000664 U	0.00034 U	0.000685 U	0.000274 U	--	--	--
2,3',4-TriCB-(25)	--	--	0.000248 U	0.000199 U	0.000558 U	0.000396 U	--	--	--
2,3',5-TriCB-(26)	--	--	0.000239 U	0.000397 J	0.000539 U	0.000392 U	--	--	--
2,3',6-TriCB-(27)	--	--	0.000671 U	0.000331 U	0.000691 U	0.000266 U	--	--	--
2,4,4'-TriCB-(28)	--	--	0.00115 J	0.000316 J	0.000974 J	0.000314 U	--	--	--
2,4,5-TriCB-(29)	--	--	0.00023 U	0.000187 U	0.000519 U	0.000373 U	--	--	--
2,4,6-TriCB-(30)	--	--	0.000646 U	0.000322 U	0.000666 U	0.000259 U	--	--	--
2,4',5-TriCB-(31)	--	--	0.000976 J	0.000641 J	0.000858 J	0.000403 U	--	--	--
2,4',6-TriCB-(32)	--	--	0.000716 U	0.000393 U	0.000738 U	0.000316 U	--	--	--
2,3',5'-TriCB-(34)	--	--	0.000241 U	0.000183 U	0.000542 U	0.000364 U	--	--	--
3,3',4,-TriCB-(35)	--	--	0.00025 U	0.000347 J	0.000564 U	0.000443 U	--	--	--
3,3',5-TriCB-(36)	--	--	0.000234 U	0.000205 U	0.000527 U	0.000408 U	--	--	--
3,4,4'-TriCB-(37)	--	--	0.00125 J	0.000513 J	0.00114 J	0.000411 U	--	--	--
3,4,5-TriCB-(38)	--	--	0.000248 U	0.000195 U	0.00056 U	0.000389 U	--	--	--
3,4',5-TriCB-(39)	--	--	0.000226 U	0.000199 U	0.000509 U	0.000397 U	--	--	--
2,2',3,3'-TetraCB-(40)	--	--	0.000471 U	0.00028 U	0.000557 U	0.000301 U	--	--	--
PCBs 41 + 64 + 71 + 72	--	--	0.00131 CJ	0.000614 CJ	0.000356 CU	0.000192 CU	--	--	--
PCBs 42 + 59	--	--	0.000331 CU	0.0002 CU	0.000391 CU	0.000215 CU	--	--	--
PCBs 43 + 49	--	--	0.00155 CJ	0.000843 C	0.00112 CJ	0.000649 CJ	--	--	--
2,2',3,5'-TetraCB-(44)	--	--	0.00144 J	0.000964	0.00111 J	0.000284 U	--	--	--
2,2',3,6-TetraCB-(45)	--	--	0.0004 U	0.000246 U	0.000473 U	0.000264 U	--	--	--
2,2',3,6'-TetraCB-(46)	--	--	0.000415 U	0.000257 U	0.000491 U	0.000275 U	--	--	--
2,2',4,4'-TetraCB-(47)	--	--	0.000386 U	0.000209 U	0.000457 U	0.000224 U	--	--	--
PCBs 48 + 75	--	--	0.000287 CU	0.000177 CU	0.000339 CU	0.00019 CU	--	--	--
2,2',4,6-TetraCB-(50)	--	--	0.000325 U	0.000207 U	0.000384 U	0.000223 U	--	--	--
2,2',4,6'-TetraCB-(51)	--	--	0.000315 U	0.000202 U	0.000372 U	0.000216 U	--	--	--
PCBs 52 + 69	--	--	0.00193 C	0.00141 C	0.00164 C	0.00105 C	--	--	--
2,2',5,6'-TetraCB-(53)	--	--	0.000348 U	0.000533 J	0.000411 U	0.000516 J	--	--	--
2,2',6,6'-TetraCB-(54)	--	--	0.000254 U	0.000161 U	0.0003 U	0.000173 U	--	--	--
2,3,3',4-TetraCB-(55)	--	--	0.000273 U	0.00016 U	0.000323 U	0.000171 U	--	--	--
PCBs 56 + 60	--	--	0.000766 CJ	0.000416 CJ	0.000613 CJ	0.000195 CU	--	--	--

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Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
2,3,3',5-TetraCB-(57)	--	--	0.000286 U	0.000165 U	0.000338 U	0.000177 U	--	--	--
2,3,3',5'-TetraCB-(58)	--	--	0.000277 U	0.000161 U	0.000328 U	0.000173 U	--	--	--
PCBs 61 + 70	--	--	0.000997 CJ	0.000464 CJ	0.000973 CJ	0.000188 CU	--	--	--
2,3,4,6-TetraCB-(62)	--	--	0.000282 U	0.000171 U	0.000334 U	0.000183 U	--	--	--
2,3,4',5-TetraCB-(63)	--	--	0.000284 U	0.000161 U	0.000336 U	0.000172 U	--	--	--
2,3,5,6-TetraCB-(65)	--	--	0.000291 U	0.000173 U	0.000344 U	0.000185 U	--	--	--
PCBs 66 + 76	--	--	0.00138 CJ	0.000433 CJ	0.00113 CJ	0.000173 CU	--	--	--
2,3',4,5-TetraCB-(67)	--	--	0.000296 U	0.000174 U	0.00035 U	0.000187 U	--	--	--
2,3',4,5'-TetraCB-(68)	--	--	0.000258 U	0.000153 U	0.000306 U	0.000164 U	--	--	--
2,3',5',6-TetraCB-(73)	--	--	0.000267 U	0.000157 U	0.000316 U	0.000168 U	--	--	--
2,4,4',5-TetraCB-(74)	--	--	0.000294 U	0.000167 U	0.000646 J	0.000179 U	--	--	--
3,3',4,4'-TetraCB-(77)	--	--	0.000461 J	0.000142 U	0.000487 J	0.000196 U	--	--	--
3,3',4,5-TetraCB-(78)	--	--	0.000273 U	0.000128 U	0.000264 U	0.000184 U	--	--	--
3,3',4,5'-TetraCB-(79)	--	--	0.000268 U	0.000122 U	0.000259 U	0.000176 U	--	--	--
3,3',5,5'-TetraCB-(80)	--	--	0.00023 U	0.00014 U	0.000272 U	0.00015 U	--	--	--
3,4,4',5-TetraCB-(81)	--	--	0.000263 U	0.000116 U	0.000255 U	0.000176 U	--	--	--
2,2',3,3',4-PentaCB-(82)	--	--	0.000534 U	0.000272 U	0.000597 U	0.000343 U	--	--	--
PCBs 83 + 112	--	--	0.000398 CU	0.000197 CU	0.000445 CU	0.000249 CU	--	--	--
PCBs 84 + 92	--	--	0.000438 CU	0.000384 CJ	0.00049 CU	0.000278 CU	--	--	--
PCBs 85 + 116	--	--	0.000355 CU	0.000187 CU	0.000397 CU	0.000235 CU	--	--	--
2,2',3,4,5-PentaCB-(86)	--	--	0.000422 U	0.000205 U	0.000472 U	0.000258 U	--	--	--
PCBs 87 + 117 + 125	--	--	0.000359 CU	0.000448 CJ	0.000401 CU	0.000231 CU	--	--	--
PCBs 88 + 91	--	--	0.000243 CU	0.000269 CJ	0.00021 CU	0.000123 CU	--	--	--
2,2',3,4,6'-PentaCB-(89)	--	--	0.000429 U	0.000224 U	0.00048 U	0.000283 U	--	--	--
PCBs 90 + 101	--	--	0.0013 CJ	0.00129 C	0.0011 CJ	0.000803 C	--	--	--
2,2',3,5,6-PentaCB-(93)	--	--	0.000252 U	0.00011 U	0.000218 U	0.000149 U	--	--	--
2,2',3,5,6'-PentaCB-(94)	--	--	0.000276 U	0.000109 U	0.000239 U	0.000148 U	--	--	--
2,2',3,5',6-PentaCB-(95)	--	--	0.00111 J	0.0011	0.00104 J	0.000631 J	--	--	--
2,2',3,6,6'-PentaCB-(96)	--	--	0.000183 U	7.44E-05 U	0.000158 U	0.000101 U	--	--	--
2,2',3,4',5'-PentaCB-(97)	--	--	0.000482 U	0.00024 U	0.000539 U	0.000303 U	--	--	--
PCBs 98 + 102	--	--	0.00028 CU	0.000103 CU	0.000242 CU	0.00014 CU	--	--	--
2,2',4,4',5-PentaCB-(99)	--	--	0.000369 U	0.00039 J	0.000413 U	0.000227 U	--	--	--
2,2',4,4',6-PentaCB-(100)	--	--	0.000226 U	8.91E-05 U	0.000195 U	0.000121 U	--	--	--
2,2',4,5',6-PentaCB-(103)	--	--	0.000232 U	9.12E-05 U	0.0002 U	0.000124 U	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
2,2',4,6,6'-PentaCB-(104)	--	--	0.00017 U	7.13E-05 U	0.000147 U	0.000097 U	--	--	--
2,3,3',4,4'-PentaCB-(105)	--	--	0.000718 J	0.000197 U	0.000479 J	0.00021 U	--	--	--
PCBs 106 + 118	--	--	0.00115 CJ	0.000829 C	0.000982 CJ	0.000556 CJ	--	--	--
PCBs 107 + 108	--	--	0.000361 CU	0.000193 CU	0.000297 CU	0.000197 CU	--	--	--
2,3,3',4,6-PentaCB-(109)	--	--	0.000333 U	0.000164 U	0.000372 U	0.000206 U	--	--	--
2,3,3',4',6-PentaCB-(110)	--	--	0.00106 J	0.00087	0.000897 J	0.000575 J	--	--	--
PCBs 111 + 115	--	--	0.000315 CU	0.000157 CU	0.000352 CU	0.000198 CU	--	--	--
2,3,3',5',6-PentaCB-(113)	--	--	0.000352 U	0.000171 U	0.000394 U	0.000216 U	--	--	--
2,3,4,4',5-PentaCB-(114)	--	--	0.000316 U	0.000187 U	0.000283 U	0.000187 U	--	--	--
2,3',4,4',6-PentaCB-(119)	--	--	0.000323 U	0.000155 U	0.000361 U	0.000196 U	--	--	--
2,3',4,5,5'-PentaCB-(120)	--	--	0.000299 U	0.00015 U	0.000334 U	0.000188 U	--	--	--
2,3',4,5',6-PentaCB-(121)	--	--	0.0002 U	8.24E-05 U	0.000173 U	0.000112 U	--	--	--
2,3,3',4',5'-PentaCB-(122)	--	--	0.00037 U	0.000197 U	0.000304 U	0.000201 U	--	--	--
2,3',4,4',5'-PentaCB-(123)	--	--	0.000379 U	0.000222 U	0.000346 U	0.000224 U	--	--	--
2,3',4',5,5'-PentaCB-(124)	--	--	0.000355 U	0.000209 U	0.000292 U	0.000213 U	--	--	--
3,3',4,4',5-PentaCB-(126)	--	--	0.000386 U	0.000252 U	0.000282 U	0.00026 U	--	--	--
3,3',4,5,5'-PentaCB-(127)	--	--	0.00037 U	0.000206 U	0.000304 U	0.00021 U	--	--	--
PCBs 128 + 162	--	--	0.000316 CU	0.000153 CU	0.000342 CU	0.000143 CU	--	--	--
2,2',3,3',4,5-HexaCB-(129)	--	--	0.0004 U	0.000204 U	0.000432 U	0.000191 U	--	--	--
2,2',3,3',4,5'-HexaCB-(130)	--	--	0.000423 U	0.000186 U	0.000458 U	0.000174 U	--	--	--
PCBs 131 + 133	--	--	0.000383 CU	0.000191 CU	0.000414 CU	0.000178 CU	--	--	--
PCBs 132 + 161	--	--	0.000306 CU	0.00029 CJ	0.000331 CU	0.000332 CJ	--	--	--
PCBs 134 + 143	--	--	0.000383 CU	0.00019 CU	0.000414 CU	0.000177 CU	--	--	--
2,2',3,3',5,6'-HexaCB-(135)	--	--	0.000337 U	0.000169 U	0.000364 U	0.000158 U	--	--	--
2,2',3,3',6,6'-HexaCB-(136)	--	--	0.000376 J	0.00017 U	0.000175 U	0.000224 U	--	--	--
2,2',3,4,4',5-HexaCB-(137)	--	--	0.000332 U	0.000182 U	0.000359 U	0.00017 U	--	--	--
PCBs 138 + 163 + 164	--	--	0.00153 CJ	0.00134 C	0.00154 C	0.00104 C	--	--	--
PCBs 139 + 149	--	--	0.00126 CJ	0.00118 C	0.000995 CJ	0.000963 C	--	--	--
2,2',3,4,4',6'-HexaCB-(140)	--	--	0.000304 U	0.000155 U	0.000329 U	0.000145 U	--	--	--
2,2',3,4,5,5'-HexaCB-(141)	--	--	0.000347 U	0.000368 J	0.000375 U	0.000343 J	--	--	--
2,2',3,4,5,6-HexaCB-(142)	--	--	0.000373 U	0.000189 U	0.000403 U	0.000177 U	--	--	--
2,2',3,4,5',6-HexaCB-(144)	--	--	0.000343 U	0.000161 U	0.000371 U	0.00015 U	--	--	--
2,2',3,4,6,6'-HexaCB-(145)	--	--	0.000171 U	0.000155 U	0.000168 U	0.000204 U	--	--	--
PCBs 146 + 165	--	--	0.000296 CU	0.000268 CJ	0.00032 CU	0.000133 CU	--	--	--

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Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
2,2',3,4',5,6-HexaCB-(147)	--	--	0.000318 U	0.000153 U	0.000344 U	0.000143 U	--	--	--
2,2',3,4',5,6'-HexaCB-(148)	--	--	0.000238 U	0.000195 U	0.000235 U	0.000257 U	--	--	--
2,2',3,4',6,6'-HexaCB-(150)	--	--	0.000173 U	0.000155 U	0.000171 U	0.000204 U	--	--	--
2,2',3,5,5',6-HexaCB-(151)	--	--	0.000358 U	0.00044 J	0.000387 U	0.000414 J	--	--	--
2,2',3,5,6,6'-HexaCB-(152)	--	--	0.000172 U	0.000158 U	0.00017 U	0.000208 U	--	--	--
2,2',4,4',5,5'-HexaCB-(153)	--	--	0.00135 J	0.00161	0.00154	0.00123	--	--	--
2,2',4,4',5,6'-HexaCB-(154)	--	--	0.000209 U	0.000184 U	0.000207 U	0.000241 U	--	--	--
2,2',4,4',6,6'-HexaCB-(155)	--	--	0.000164 U	0.000146 U	0.000162 U	0.000192 U	--	--	--
2,3,3',4,4',5-HexaCB-(156)	--	--	0.00028 U	0.000125 U	0.000301 U	0.000112 U	--	--	--
2,3,3',4,4',5'-HexaCB-(157)	--	--	0.000297 U	0.000148 U	0.000336 U	0.000137 U	--	--	--
PCBs 158 + 160	--	--	0.000265 CU	0.000128 CU	0.000287 CU	0.000234 CJ	--	--	--
2,3,3',4,5,5'-HexaCB-(159)	--	--	0.000255 U	0.000123 U	0.000276 U	0.000115 U	--	--	--
2,3,4,4',5,6-HexaCB-(166)	--	--	0.000281 U	0.000131 U	0.000304 U	0.000122 U	--	--	--
2,3',4,4',5,5'-HexaCB-(167)	--	--	0.000311 U	0.000125 U	0.000344 U	0.000134 U	--	--	--
2,3',4,4',5',6-HexaCB-(168)	--	--	0.000261 U	0.000127 U	0.000282 U	0.000119 U	--	--	--
3,3',4,4',5,5'-HexaCB-(169)	--	--	0.000249 U	0.000128 U	0.00025 U	0.000108 U	--	--	--
2,2',3,3',4,4',5-HeptaCB-(170)	--	--	0.000631 J	0.000574 J	0.000379 U	0.000457 J	--	--	--
2,2',3,3',4,4',6-HeptaCB-(171)	--	--	0.000353 U	0.000142 U	0.000368 U	0.000148 U	--	--	--
2,2',3,3',4,5,5'-HeptaCB-(172)	--	--	0.000371 U	0.000152 U	0.000387 U	0.000158 U	--	--	--
2,2',3,3',4,5,6-HeptaCB-(173)	--	--	0.000394 U	0.00016 U	0.000411 U	0.000167 U	--	--	--
2,2',3,3',4,5,6'-HeptaCB-(174)	--	--	0.00103 J	0.000565 J	0.0011 J	0.000533 J	--	--	--
2,2',3,3',4,5',6-HeptaCB-(175)	--	--	0.000327 U	0.00014 U	0.000342 U	0.000145 U	--	--	--
2,2',3,3',4,6,6'-HeptaCB-(176)	--	--	0.000246 U	0.000102 U	0.000257 U	0.000106 U	--	--	--
2,2',3,3',4,5',6'-HeptaCB-(177)	--	--	0.000381 U	0.000153 U	0.000398 U	0.0004 J	--	--	--
2,2',3,3',5,5',6-HeptaCB-(178)	--	--	0.000349 U	0.000143 U	0.000364 U	0.000149 U	--	--	--
2,2',3,3',5,6,6'-HeptaCB-(179)	--	--	0.000249 U	0.000101 U	0.00026 U	0.00029 J	--	--	--
2,2',3,4,4',5,5'-HeptaCB-(180)	--	--	0.00159 J	0.00139	0.00202	0.00181	--	--	--
2,2',3,4,4',5,6-HeptaCB-(181)	--	--	0.000339 U	0.00014 U	0.000354 U	0.000145 U	--	--	--
PCBs 182 + 187	--	--	0.000767 CJ	0.000854 C	0.00136 CJ	0.0013 C	--	--	--
2,2',3,4,4',5',6-HeptaCB-(183)	--	--	0.00114 J	0.000835	0.000926 J	0.000988	--	--	--
2,2',3,4,4',6,6'-HeptaCB-(184)	--	--	0.000223 U	9.28E-05 U	0.000233 U	9.65E-05 U	--	--	--
2,2',3,4,5,5',6-HeptaCB-(185)	--	--	0.000342 U	0.000139 U	0.000357 U	0.000145 U	--	--	--
2,2',3,4,5,6,6'-HeptaCB-(186)	--	--	0.000243 U	0.000101 U	0.000254 U	0.000105 U	--	--	--
2,2',3,4',5,6,6'-HeptaCB-(188)	--	--	0.000273 U	0.000108 U	0.000305 U	0.000104 U	--	--	--

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Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
2,3,3',4,4',5,5'-HeptaCB-(189)	--	--	0.000238 U	9.85E-05 U	0.000225 U	0.000111 U	--	--	--
2,3,3',4,4',5,6-HeptaCB-(190)	--	--	0.000283 U	0.000109 U	0.000296 U	0.000113 U	--	--	--
2,3,3',4,4',5',6-HeptaCB-(191)	--	--	0.000275 U	0.000106 U	0.000287 U	0.000111 U	--	--	--
2,3,3',4,5,5',6-HeptaCB-(192)	--	--	0.000294 U	0.000113 U	0.000307 U	0.000117 U	--	--	--
2,3,3',4',5,5',6-HeptaCB-(193)	--	--	0.000268 U	0.000103 U	0.00028 U	0.000108 U	--	--	--
2,2',3,3',4,4',5,5'-OctaCB-(194)	--	--	0.000331 U	0.000422 U	0.000932 J	0.00066 J	--	--	--
2,2',3,3',4,4',5,6-OctaCB-(195)	--	--	0.00035 U	0.000457 U	0.000357 U	0.000225 U	--	--	--
PCBs 196 + 203	--	--	0.00047 CU	0.000345 CU	0.0012 CJ	0.00107 C	--	--	--
2,2',3,3',4,4',6,6'-OctaCB-(197)	--	--	0.000362 U	0.000267 U	0.000285 U	9.98E-05 U	--	--	--
2,2',3,3',4,5,5',6-OctaCB-(198)	--	--	0.000534 U	0.000377 U	0.000421 U	0.000141 U	--	--	--
2,2',3,3',4,5,5',6'-OctaCB-(199)	--	--	0.000477 U	0.000396 U	0.000954 J	0.00103	--	--	--
2,2',3,3',4,5,6,6'-OctaCB-(200)	--	--	0.000381 U	0.000274 U	0.000301 U	0.000102 U	--	--	--
2,2',3,3',4,5',6,6'-OctaCB-(201)	--	--	0.000382 U	0.000287 U	0.000301 U	0.000107 U	--	--	--
2,2',3,3',5,5',6,6'-OctaCB-(202)	--	--	0.000398 U	0.000292 U	0.000314 U	0.000389 J	--	--	--
2,2',3,4,4',5,6,6'-OctaCB-(204)	--	--	0.00037 U	0.00028 U	0.000292 U	0.000105 U	--	--	--
2,3,3',4,4',5,5',6-OctaCB-(205)	--	--	0.00028 U	0.000333 U	0.000285 U	0.000164 U	--	--	--
2,2',3,3',4,4',5,5',6-NonaCB-(206)	--	--	0.000322 U	0.000335 U	0.000922 J	0.000724 J	--	--	--
2,2',3,3',4,4',5,6,6'-NonaCB-(207)	--	--	0.000216 U	0.000227 U	0.000239 U	0.00017 U	--	--	--
2,2',3,3',4,5,5',6,6'-NonaCB-(208)	--	--	0.000195 U	0.000205 U	0.000234 U	0.000154 U	--	--	--
DecaCB-(209)	--	--	0.000292 U	0.000299 U	0.00048 U	0.000217 U	--	--	--
Total PCB Congeners[h]	--	--	0.0523 JT	0.0448 JT	0.0479 JT	0.0394 JT	--	--	--
Phenols (mg/kg)									
2,3,4,6-Tetrachlorophenol	--	--	--	--	--	--	0.8 UJ	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	2,450 J	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	12,500 J	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	10,500 J	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	0.8 UJ	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	2.4 UJ	--	--
2,6-Dichlorophenol	--	--	--	--	--	--	0.8 UJ	--	--
2-Chlorophenol	--	--	--	--	--	--	0.65 UJ	--	--
2-Nitrophenol	--	--	--	--	--	--	0.8 UJ	--	--
3- & 4-Methylphenol (m,p-Cresol)	--	--	--	--	--	--	0.8 UJ	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--	0.8 UJ	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	0.8 UJ	--	--

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Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
4-Nitrophenol	--	--	--	--	--	--	0.8 UJ	--	--
Dinoseb	--	--	--	--	--	--	0.8 UJ	--	--
Pentachlorophenol	--	--	--	--	--	--	0.8 UJ	--	--
Phenol	--	--	--	--	--	--	0.65 UJ	--	--
Tetrachlorophenols, total[i]	--	--	--	--	--	--	2 UJ	--	--
SVOCs (mg/kg)									
1,2,4-Trichlorobenzene	6,470	10,000 J	2.43 U	19.8 U	2.43 U	19.8 U	3,720 J	--	107
1,2-Dichlorobenzene	235,000	310,000	5.58 U	41.2 U	5.58 U	41.2 U	104,000 J	--	5,880
1,3-Dichlorobenzene	15,000 U	14,000 J	5.63 U	37.7 U	5.63 U	37.7 U	7,500 UJ	--	292
1,4-Dichlorobenzene	87,700	120,000	5.86 U	16 U	5.86 U	16 U	37,700 J	--	1,570
1-Methylnaphthalene	10,500 U	--	11,300	9,290	13,600	14,100	--	--	--
2,3,4,6-Tetrachlorophenol	--	50000 U	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	2,100 U	120,000 U	2.02 U	36.7 U	2.02 U	36.7 U	1,050 UJ	--	192 U
2,4,6-Trichlorophenol	2,100 U	50,000 U	1.87 U	28.1 U	1.87 U	28.1 U	8,710 J	--	1,520
2,4-Dichlorophenol	2,100 U	50,000 U	2.55 U	20.3 U	2.55 U	20.3 U	7,480 J	--	27,900
2,4-Dimethylphenol	15,000 U	50,000 U	2.56 U	15.1 U	2.56 U	15.1 U	7,500 UJ	--	192 U
2,4-Dinitrophenol	15,000 U	120,000 UJ	9.2 U	10.6 U	9.2 U	10.6 U	7,500 UJ	--	480 U
2,4-Dinitrotoluene	2,100 U	50,000 U	1.38 U	30.8 U	1.38 U	30.8 U	1,050 UJ	--	192 U
2,6-Dichlorophenol	15,000 U	50,000 U	--	--	--	--	--	--	--
2,6-Dinitrotoluene	2,100 U	50,000 U	2.01 U	32.9 U	2.01 U	32.9 U	1,050 UJ	--	192 U
2-Chloronaphthalene	2,100 U	50,000 U	2.5 U	18.1 U	2.5 U	18.1 U	1,050 UJ	--	19.2 U
2-Chlorophenol	2,100 U	50,000 U	4.02 U	30 U	4.02 U	30 U	1,050 UJ	--	1,830 N
2-Methylnaphthalene	2,100 U	50,000 U	16,600	15,400	24,500	26,000	1,050 UJ	--	69.2
2-Methylphenol	2,100 U	50,000 U	3.31 U	33.7 U	3.31 U	33.7 U	1,050 UJ	--	192 U
2-Nitroaniline	2,100 U	120,000 U	1.84 U	23.1 U	1.84 U	23.1 U	1,050 UJ	--	192 U
2-Nitrophenol	2,100 U	50,000 U	1.72 U	30.4 U	1.72 U	30.4 U	1,050 UJ	--	192 U
3- & 4-Methylphenol (m,p-Cresol)	2,100 U	--	3.44 U	26.8 U	3.44 U	26.8 U	1,050 UJ	--	--
3,3-Dichlorobenzidine	15,000 U	50,000 U	4.27 U	27.6 U	467	27.6 U	7,500 UJ	--	192 U
3-Nitroaniline	15,000 U	120,000 UJ	6.02 U	14.4 U	6.02 U	14.4 U	7,500 UJ	--	192 U
4,6-Dinitro-2-methylphenol	15,000 U	120,000 UJ	9.59 U	27.6 U	9.59 U	27.6 U	7,500 UJ	--	480 U
4-Bromophenylphenyl ether	2,100 U	50,000 U	2.15 U	31.4 U	2.15 U	31.4 U	1,050 UJ	--	192 U
4-Chloro-3-methylphenol	2,100 U	50,000 U	3.02 U	28.2 U	3.02 U	28.2 U	1,050 UJ	--	102
4-Chloroaniline	15,000 U	50,000 UJ	8.05 U	25.2 U	8.05 U	25.2 U	7,500 UJ	--	192 U
4-Chlorophenylphenyl ether	2,100 U	50,000 U	1.92 U	26.5 U	1.92 U	26.5 U	1,050 UJ	--	192 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
4-Methylphenol	--	50000 U	--	--	--	--	--	--	192 U
4-Nitroaniline	2,100 U	120,000 U	2.36 U	36.5 U	2.36 U	36.5 U	1,050 UJ	--	192 U
4-Nitrophenol	15,000 U	120,000 U	4.16 U	10.3 U	4.16 U	10.3 U	7,500 UJ	--	480 U
Acenaphthene	2,100 U	50,000 U	14,100	13,300	11,400	12,000	1,050 UJ	--	19.2 U
Acenaphthylene	2,100 U	50,000 U	990	908	2,520	2,390	1,050 UJ	--	19.2 U
Aniline	--	--	3.04 U	21.4 U	3.04 U	21.4 U	--	--	--
Anthracene	2,100 U	50,000 U	6,010	7,010	5,480	5,940	1,050 UJ	--	19.2 U
Azobenzene	--	--	11.3 U	32.6 U	11.3 U	32.6 U	--	--	--
Benzidine	--	--	6 U	23.9 U	6 U	23.9 U	--	--	--
Benzo(a)anthracene	2,100 U	50,000 U	2,850	3,280	2,220	2,630	1,050 UJ	--	38.4 U
Benzo(a)pyrene	2,100 U	50,000 U	3,080	3,890	2,440	2,750	1,050 UJ	--	19.2 U
Benzo(b)fluoranthene	2,100 U	50,000 U	2,680	3,170	1,990	2,230	1,050 UJ	--	--
Benzo(ghi)perylene	2,100 U	50,000 U	2,370	3,290	1,900	3,000	1,050 UJ	--	19.2 U
Benzo(j)fluoranthene	--	--	--	--	--	--	--	--	38.4 U
Benzo(k)fluoranthene	2,100 U	50,000 U	887	1,070	1,180	715	1050 UJ	--	--
Benzoic acid	15,000 U	120,000 UJ	9.46 U	29 U	9.46 U	29 U	7,500 UJ	--	961 U
Benzyl alcohol	2,100 U	50,000 U	9.23 U	28.7 U	9.23 U	28.7 U	1,050 UJ	--	192 U
Bis(2-chloro-1-methylethyl)ether	--	--	3.72 U	39.8 U	3.72 U	39.8 U	--	--	--
Bis(2-chloroethoxy)methane	2,100 U	50,000 U	7.09 U	20.8 U	7.09 U	20.8 U	1,050 UJ	--	192 U
Bis(2-chloroethyl)ether	2,100 U	50,000 U	3.77 U	34 U	3.77 U	34 U	1,050 UJ	--	192 U
Bis(2-chloroisopropyl)ether	2,100 U	50,000 U	--	--	--	--	1050 UJ	--	192 U
Bis(2-ethylhexyl)phthalate	60,000 U	50,000 U	3.97 U	22.3 U	54	22.3 U	30,000 UJ	--	480 U
Butylbenzylphthalate	2,100 U	50,000 U	2.44 U	19.2 U	2.44 U	19.2 U	1,050 UJ	--	192 U
Carbazole	--	--	2,180	1,990	1,930	1,850	--	--	--
Chrysene	2,100 U	50,000 U	3,500	4,490	2,850	3,210	1,050 UJ	--	38.4 U
Dibenzo(a,h)anthracene	1,800 U	50,000 U	387	456	803	815	900 UJ	--	19.2 U
Dibenzofuran	2,100 U	50,000 U	1,050	1,130	1,250	1,320	1,050 UJ	--	192 U
Diethyl phthalate	2,100 U	50,000 U	3.08 U	13.2 U	3.08 U	13.2 U	1,050 UJ	--	192 U
Dimethyl phthalate	2,100 U	50,000 U	3.01 U	34.1 U	3.01 U	34.1 U	1,050 UJ	--	192 U
Di-n-butyl phthalate	15,000 U	50,000 U	7.19 U	27.7 U	7.19 U	27.7 U	7,500 UJ	--	961 U
Di-n-octyl phthalate	2,100 U	50,000 U	2.87 U	30.2 U	553	30.2 U	1,050 UJ	--	192 U
Dinoseb	75,000 U	--	--	--	--	--	--	--	--
Fluoranthene	2,100 U	50,000 U	14,300	13,600	11,000	11,600	1,050 UJ	--	48.8
Fluorene	2,100 U	50,000 U	5,720	6,050	6,280	6,550	1,050 UJ	--	19.2 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
Hexachlorobenzene	2,100 U	50,000 U	0.25 U	12.3 U	0.25 U	12.3 U	1,050 UJ	--	192 U
Hexachlorobutadiene	15,000 U	50,000 U	3.52 U	33.5 U	3.52 U	33.5 U	7,500 UJ	--	192 U
Hexachlorocyclopentadiene	15,000 U	50,000 U	2.65 U	39.6 U	2.65 U	39.6 U	7,500 UJ	--	192 U
Hexachloroethane	15,000 U	50,000 U	5.7 U	20.3 U	5.7 U	20.3 U	7,500 UJ	--	192 U
Indeno(1,2,3-cd)pyrene	2,100 U	50,000 U	1,950	2,390	1,780	2,170	1,050 UJ	--	19.2 U
Isophorone	2,100 U	50,000 U	1.67 U	24.4 U	1.67 U	24.4 U	1,050 UJ	--	192 U
Naphthalene	2,100 U	50,000 U	77,400	49,200	75,000	53,800	1,050 UJ	--	19.2 U
Nitrobenzene	2,100 U	--	1.55 U	15.1 U	1.55 U	15.1 U	1,050 UJ	--	192 U
N-Nitrosodimethylamine	--	50000 U	4.4 U	18.5 U	4.4 U	18.5 U	--	--	--
N-Nitrosodiphenylamine	2,100 U	50,000 U	1.6 U	37 U	1.6 U	37 U	1,050 UJ	--	192 U
N-Nitrosodipropylamine	2,100 U	50,000 U	2.62 U	33.1 U	2.62 U	33.1 U	1,050 UJ	--	192 U
Pentachlorophenol	15,000 U	120,000 U	3 U	10.3 U	3 U	10.3 U	7,500 UJ	--	192 U
Phenanthrene	2,100 U	50,000 U	33,000	30,200	27,700	28,600	1,050 UJ	--	19.2 U
Phenol	2,100 U	50,000 U	3.36 U	39.1 U	3.36 U	39.1 U	1,050 UJ	--	192 U
Pyrene	2,100 U	50,000 U	14,500	14,000	10,400	11,700	1,050 UJ	--	31.9
Pyridine	--	--	20 U	35.6 U	20 U	35.6 U	--	--	--
Tetrachlorophenols, total	15,000 U	--	--	--	--	--	--	--	--
cPAH TEQ[j][3]	2,100 UT	50,000 UT	4,230 T	5,250 T	3,860 T	4,280 T	1,050 UJT	--	19 UT
Total PAH[k]	2,100 UT	50,000 UT	200,000 T	172,000 T	189,000 T	176,000 T	1,050 UJT	--	169 T

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
Hydrocarbon Identification (Detect/Non-detect)									
Gasoline	DETECT	--	--	--	--	--	--	--	DETECT
Diesel	DETECT	--	--	--	--	--	--	--	DETECT
Lube oil	DETECT	--	--	--	--	--	--	--	DETECT
TPH (mg/kg)									
Gasoline-range hydrocarbons	--	--	12,100	248,000	336,000	370,000	--	--	--
Diesel-range hydrocarbons	262,000	--	565,000	455,000	636,000	500,000	--	--	354,000
Lube-oil-range hydrocarbons	39,200 U	--	194,000	254,000 J+	156,000	234,000 J+	--	--	10,500
VOCs, nonhalogenated (mg/kg)									
Isobutanol	--	--	--	--	--	--	484 UJ	--	--
VOCs (mg/kg)									
1,1,1,2-Tetrachloroethane	92.5 U	0.1 U	1.5 U	8.62 U	1.5 U	8.62 U	177 UJ	--	1,990 U
1,1,1-Trichloroethane	61.3 U	0.1 U	1.32 U	11 U	1.32 U	11 U	70.4 UJ	--	1,990 U
1,1,2,2-Tetrachloroethane	211 UJ	0.1 U	2.21 U	7.95 U	2.21 U	7.95 U	189 UJ	--	1,990 U
1,1,2-Trichloroethane	181 U	0.1 U	1.01 U	8.08 U	1.01 U	8.08 U	173 UJ	--	1,990 U
1,1-Dichloroethane	119 U	0.1 U	2.3 U	10.3 U	2.3 U	10.3 U	151 UJ	--	1,990 U
1,1-Dichloroethene	119 U	0.1 U	3.59 U	13.2 U	36.4 J	13.2 U	106 UJ	--	1,990 U
1,1-Dichloropropane	109 U	0.1 U	--	--	--	--	154 UJ	--	1,990 U
1,1-Dichloropropene	--	--	3.03 U	8.8 U	3.03 U	8.8 U	--	--	--
1,2,3-Trichlorobenzene	700	0.1 U	1.48 U	4.57 U	1.48 U	4.57 U	817 J	--	1,990 U
1,2,3-Trichloropropane	492 U	0.025 U	2.03 U	14.6 U	2.03 U	14.6 U	101 UJ	--	1,990 U
1,2,4-Trichlorobenzene	4,990	6,400 J	4.25 U	4.64 U	4.25 U	4.64 U	4,160 J	--	1,990 U
1,2,4-Trimethylbenzene	7,400	11,000	947	1,000	1,340	1,780	16,900 J	--	2,900
1,2-Dibromo-3-chloropropane	260 U	0.052 U	6.83 U	19.7 U	6.83 U	19.7 U	237 UJ	--	1,990 U
1,2-Dibromoethane	116 U	0.3 U	2.49 U	11.1 U	2.49 U	11.1 U	148 J	--	1,990 U
1,2-Dichlorobenzene	183,000	210,000	3.28 U	8.76 U	3.28 U	8.76 U	123,000 J	--	2,570
1,2-Dichloroethane	112 U	0.1 U	2.28 U	7.8 U	2.28 U	7.8 U	130 UJ	--	1,990 U
1,2-Dichloropropane	74.5 U	0.2 U	2.55 U	11.2 U	2.55 U	11.2 U	192 UJ	--	1,990 U
1,3,5-Trimethylbenzene	2,010	3,500 J	346	364	504	475	4,970 J	--	1,270
1,3-Dichlorobenzene	7,880	7,000 J	3.21 U	7.47 U	3.21 U	7.47 U	4,590 J	--	1,990 U
1,3-Dichloropropane	174 U	0.1 U	1.48 U	7.19 U	1.48 U	7.19 U	187 UJ	--	1,990 U
1,4-Dichlorobenzene	71,000	75,000	1.68 U	8.37 U	1.68 U	8.37 U	40,000 J	--	1,990 U
2,2-Dichloropropane	80.9 UJ	0.1 U	3.9 U	9.08 U	3.9 U	9.08 U	206 UJ	--	1,990 U
2-Butanone	1,480 U	0 U	26.6 U	26.1 U	26.6 U	26.1 U	4,680 J	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
2-Chlorotoluene	110 U	0.1 U	3 U	9.99 U	3 U	9.99 U	116 UJ	--	1,990 U
2-Ethyl-1-hexanol	100,000 UJ	--	--	--	--	--	--	--	--
2-Hexanone	572 U	0.084 U	53.1 U	9.15 U	53.1 U	9.15 U	403 UJ	--	--
4-Chlorotoluene	104 U	0.1 U	2.99 U	10.6 U	2.99 U	10.6 U	83.1 UJ	--	1,990 U
4-Isopropyltoluene	96.8 U	0.1 U	195	75.7 J	204	177	120 J	--	1,990 U
4-Methyl-2-pentanone	1,170 U	0 U	32.2 U	9.64 U	32.2 U	9.64 U	342 UJ	--	--
Acetone	26,700	0 U	40.3 U	64.1 J	40.3 U	28.3 U	3,850 UJ	--	--
Benzene	44.4 U	0.1 U	1,020	970	2,160	2,230	162 J	--	1,990 U
Bromobenzene	122 U	0.1 U	1.78 U	7.94 U	1.78 U	7.94 U	116 UJ	--	1,990 U
Bromodichloromethane	102 U	0.1 U	3.9 U	6.29 U	3.9 U	6.29 U	99.3 UJ	--	1,990 U
Bromoform	158 U	0.2 U	4.56 U	6.73 U	4.56 U	6.73 U	113 UJ	--	1,990 U
Bromomethane	50.9 U	0.17 U	3.39 U	13.1 U	3.39 U	13.1 U	427 UJ	--	3,970 U
Carbon disulfide	71.9 U	0.1 U	3.53 U	10.2 U	3.53 U	10.2 U	227 UJ	--	--
Carbon tetrachloride	76.4 U	0.1 U	4.97 U	12.1 U	4.97 U	12.1 U	246 J	--	1,990 U
Chlorobenzene	1,350	0 U	2.03 U	9.96 U	2.03 U	9.96 U	718 J	--	1,990 U
Chlorobromomethane	164 U	0.1 U	4.97 U	12 U	4.97 U	12 U	153 UJ	--	1,990 U
Chloroethane	107 U	0.2 U	2.98 U	13.9 U	2.98 U	13.9 U	268 UJ	--	1,990 U
Chloroform	72.6 U	0.025 U	2.14 U	9.85 U	2.14 U	9.85 U	298 UJ	--	1,990 U
Chloromethane	67.2 U	0.1 U	2.34 U	16.9 U	2.34 U	16.9 U	193 UJ	--	1,990 U
cis-1,2-Dichloroethene	126 U	0.1 U	669	657	11,600	11,600	132 UJ	--	1,990 U
cis-1,3-Dichloropropene	49.5 U	0.1 U	2.7 U	4.62 U	2.7 U	4.62 U	98.6 J	--	1,990 U
Dibromochloromethane	112 U	0.1 U	1.96 U	7.28 U	1.96 U	7.28 U	69.7 UJ	--	1,990 U
Dibromomethane	147 U	0.1 U	1.17 U	7.98 U	1.17 U	7.98 U	141 J	--	1,990 U
Dichlorodifluoromethane (Freon 12)	118 U	0.032 U	2.33 U	39.8 U	2.33 U	39.8 U	228 UJ	--	1,990 U
Ethylbenzene	2,000	2,100 J	1,330	1,660	2,220	2,640	20,900 J	--	38,600
Hexachlorobutadiene	694 U	0.032 U	1.36 U	11.1 U	1.36 U	11.1 U	185 UJ	--	1,990 U
Isobutanol	14,400 UJ	2 U	--	--	--	--	--	--	--
Isopropylbenzene	100	0.1 U	130	145	109	110	123 UJ	--	1,990 U
m,p-Xylene	7,150	7,300 J	906	1,010	1,630	2,320	69,800 J	--	123,000
Methyl iodide	1,350 U	0 U	--	--	--	--	7,040 UJ	--	--
Methyl tert-butyl ether	--	0.1 U	1.58 U	8.18 U	1.58 U	8.18 U	--	--	--
Methylene chloride	960 U	0.037 U	262 J	30.6 U	251 J	30.6 U	1,410 UJ	--	1,990 U
Naphthalene	141 U	0.034 U	90,200	408,000	142,000	332,000	73.2 UJ	--	1,990 U
n-Butylbenzene	113 U	0.1 U	80.1 J	8.25 U	6.91 U	96.8 J	93 UJ	--	1,990 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF		GOU				Gould		
Location:	RP-04-41	RP-04-41	WS-33-81	WS-33-81	WS-43-36	WS-43-36	MW-05-34	MW-08-27	MW-08-27
Collection Date:	12/17/2003	5/31/2007	9/11/2019	3/28/2019	9/11/2019	3/28/2019	3/30/2000	10/4/2000	4/23/2002
n-Propylbenzene	470	0.1 U	75.1 J	78.6 J	111	69.6 J	1,580 J	--	1,990 U
o-Xylene	2,440	2,400 J	449	511	771	782	15,900 J	--	22,800
sec-Butylbenzene	74.5 U	0.1 U	4.19 U	10.4 U	4.19 U	10.4 U	64.8 UJ	--	1,990 U
Styrene	88.9 U	0.1 U	4.98 U	6.94 U	4.98 U	6.94 U	108 UJ	--	1,990 U
tert-Butylbenzene	152 U	0.1 U	2.95 U	5.87 U	2.95 U	5.87 U	118 UJ	--	1,990 U
Tetrachloroethene	169 U	0.1 U	2.25 U	11 U	2.25 U	11 U	190 UJ	--	1,990 U
Toluene	200	0.1 U	51.5 J	49.9 J	607	590	1,050 J	--	1,070
trans-1,2-Dichloroethene	89.7 U	0.1 U	1.06 U	11.1 U	1.06 U	11.1 U	137 UJ	--	1,990 U
trans-1,3-Dichloropropene	82.9 U	0.1 U	2.13 U	5.7 U	2.13 U	5.7 U	125 UJ	--	1,990 U
Trichloroethene	120 U	0.1 U	2.05 U	7.52 U	25,400	27,800	1,420 J	--	2,060
Trichlorofluoromethane (Freon 11)	89.7 U	0.1 U	3.93 U	13.1 U	131	13.1 U	173 UJ	--	1,990 U
Vinyl chloride	57.4 R	0.1 U	35.9 J	33.7 J	3.48 U	14.6 U	1,090 UJ	--	1,990 U
Xylenes, total[l]	9,590	9,700 J	1,355	1,520	2,400	3,100	85,700 J	--	146,000

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
Dioxins/Furans (pg/g)					
1,2,3,4,6,7,8-HpCDD	10,000 J	14,000 U	5,000	9,000 J	140,000
1,2,3,4,6,7,8-HpCDF	118,000	15,000 J	23,000	32,000 J	3,000
1,2,3,4,7,8,9-HpCDF	5,000 J	8,000 U	721 U	2,000 J	180 U
1,2,3,4,7,8-HxCDD	2,000 U	11,000 U	205	640 J	1,000 J
1,2,3,4,7,8-HxCDF	11,000 J	9,000 U	3,000	5,000 J	430 U
1,2,3,6,7,8-HxCDD	9,000 J	10,000 U	2,000	4,000 J	7,000
1,2,3,6,7,8-HxCDF	9,000 J	10,000 U	2,000	3,000 J	150 U
1,2,3,7,8,9-HxCDD	3,000 J	11,000 U	625	2,000 J	7,000
1,2,3,7,8,9-HxCDF	8,000 U	8,000 U	90.2	500 UJ	56 U
1,2,3,7,8-PeCDD	14,000 U	14,000 U	3,000	13,000 J	1,000 U
1,2,3,7,8-PeCDF	12,000 J	13,000 U	4,000	9,000 J	240 U
2,3,4,6,7,8-HxCDF	12,000 J	15,000	3,000	3,000 J	130 U
2,3,4,7,8-PeCDF	27,000 U	15,000 U	6,000	10,000 J	140 U
2,3,7,8-TCDD	2,520,000 J	88,000	283,000	390,000 J	67 U
2,3,7,8-TCDF	3,000 U	1,360,000 NJ	6,000	28,000 J	120 U
OCDD	56,000 J	43,000 J	35,000	100,000 J	610,000
OCDF	356,000	45,000 J	57,000	97,000 J	2,000 U
Dioxin/Furan TEQ[a][2]	2,540,000 JT	240,000 JT	290,000 T	411,000 JT	4,110 JT
Anions (mg/kg)					
Sulfide	--	--	--	--	--
Sulfur	--	--	--	--	--
Chlorinated Herbicides (mg/kg)					
2,4,5-T	7.23 U	7.23 U	558 U	0.000105 U	0.083 U
2,4-D	469	413	840	7,640 J	0.12 U
2,4-DB	1,720 J	94.7 J	218 U	0.000108 U	0.24 U
4-Nitrophenol	--	--	--	--	0.17 U
Bromoxynil	6.51 UJ	6.51 UJ	225 U	--	--
Dalapon	13.5 UJ	13.5 UJ	730 R	0.000111 U	0.69 UJ
Dicamba	75 UJ	8.4 UJ	123 U	2.57E-05 U	0.14 U
Dichlorprop	6.69 UJ	6.69 UJ	121 U	7.23E-05 U	0.22 U
Dinoseb	10.1 UJ	10.1 UJ	133 U	0.000057 U	0.34 U
MCPA	921 UJ	921 UJ	11,200 U	5,040 J	0.13 U
MCPP (Mecoprop)	915 UJ	915 UJ	14,600 U	22,400 J	0.15 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
Pentachlorophenol	--	--	--	--	0.27 U
Silvex	10.6 J	6.33 UJ	650 U	0.000092 U	0.3 U
Cyanide (mg/kg)					
Total cyanide	--	--	--	--	--
Conventionals					
Carbon residue from TPH (%)	--	--	--	--	--
Specific gravity (g/cc)	--	--	--	--	--
Viscosity @40C (cST)	--	--	--	--	--
Water content (%)	--	--	--	--	--
Metals (mg/kg)					
Aluminum	--	--	--	--	--
Antimony	--	--	--	--	--
Arsenic	--	--	--	--	--
Barium	--	--	--	--	--
Beryllium	--	--	--	--	--
Cadmium	--	--	--	--	--
Chromium	--	--	--	--	--
Copper	--	--	--	--	--
Iron	--	--	--	--	--
Lead	--	--	--	--	--
Manganese	--	--	--	--	--
Mercury	--	--	--	--	--
Nickel	--	--	--	--	--
Selenium	--	--	--	--	--
Silver	--	--	--	--	--
Thallium	--	--	--	--	--
Vanadium	--	--	--	--	--
Zinc	--	--	--	--	--
Organochlorine Pesticides (mg/kg)					
4,4'-DDD	--	--	101 UJ	15 U	22 U
4,4'-DDE	--	--	101 UJ	15 U	19 U
4,4'-DDT	--	--	101 UJ	15 U	22 U
Aldrin	--	--	50.3 UJ	15 U	8.9 U
alpha-BHC	--	--	50.3 UJ	15 U	9 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
alpha-Chlordane	--	--	101 UJ	15 U	9.9 UJ
beta-BHC	--	--	50.3 UJ	15 U	11 U
beta-Chlordane	--	--	101 UJ	15 U	9.9 U
Chlordane	--	--	1,130 UJ	750 U	--
delta-BHC	--	--	50.3 UJ	15 U	9.9 U
Dieldrin	--	--	101 UJ	15 U	18 U
Endosulfan I	--	--	101 UJ	15 U	9.8 U
Endosulfan II (beta)	--	--	--	15 U	22 U
Endosulfan sulfate	--	--	101 UJ	15 U	28 U
Endrin	--	--	101 UJ	15 U	35 U
Endrin aldehyde	--	--	101 UJ	15 U	21 U
Endrin ketone	--	--	101 UJ	15 U	21 UJ
gamma-Chlordane	--	--	--	--	--
Heptachlor	--	--	50.3 UJ	15 U	11 UJ
Heptachlor epoxide	--	--	50.3 UJ	15 U	10 U
Hexachlorobenzene	--	--	75 UJ	71.5	--
Lindane	--	--	50.3 UJ	15 U	9.6 U
Methoxychlor	--	--	101 UJ	15 U	110 U
Toxaphene	--	--	1,500 UJ	1,500 U	820 U
Total Chlordanes[b]	--	--	101 UJT	15 UT	9.9 UJT
Total DDD[c]	--	--	101 UJT	15 UT	22 UT
Total DDE[d]	--	--	101 UJT	15 UT	19 UT
Total DDT[e]	--	--	101 UJT	15 UT	22 UT
Total DDx[f]	--	--	101 UJT	15 UT	22 UT

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN	SLLI			SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
Organophosphorus Pesticides (mg/kg)					
Bladan	--	--	--	--	--
Coumaphos	--	--	0.2 U	2.5 U	--
Demeton	--	--	0.2 U	2.5 U	--
Demeton-S	--	--	--	--	--
Diazinon	--	--	0.2 U	2.5 U	--
Dichlorvos	--	--	1 U	2.5 U	--
Dimethoate	--	--	--	--	--
Disulfoton	--	--	0.2 U	2.5 U	--
Dursban (Chloropyrifos)	--	--	0.2 U	2.5 U	--
Ethoprop	--	--	0.2 U	2.5 U	--
Fensulfothion	--	--	0.2 U	2.5 U	--
Fenthion	--	--	0.2 U	2.5 U	--
Guthion (Azinphos-Methyl)	--	--	0.2 U	5 U	--
Methyl parathion	--	--	0.2 U	2.5 U	--
Mevinphos	--	--	0.2 U	2.5 U	--
Naled	--	--	0.2 U	--	--
Parathion	--	--	0.2 UJ	2.5 U	--
Phorate	--	--	0.2 U	2.5 U	--
Ronnel	--	--	0.2 U	2.5 U	--
Santox (EPN)	--	--	0.2 U	2.5 U	--
Stirofos	--	--	--	--	--
Sulfotepp	--	--	--	--	--
Sulprofos (Bolstar)	--	--	1 U	2.5 U	--
Sumitox (Malathion)	--	--	0.2 U	2.5 U	--
Tetrachlorovinphos	--	--	0.2 U	2.5 U	--
Tokuthion	--	--	0.2 U	2.5 U	--
Trichloronate	--	--	1 U	2.5 U	--
PAH Homologs (mg/kg)					
C1-Chrysenes	--	--	--	--	--
C1-Naphthalenes	--	--	--	--	--
C1-Perylenes	--	--	--	--	--
C1-Phenanthrenes	--	--	--	--	--
C1-Pyrenes	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
C2-Chrysenes	--	--	--	--	--
C2-Naphthalenes	--	--	--	--	--
C2-Perylenes	--	--	--	--	--
C2-Phenanthrenes	--	--	--	--	--
C2-Pyrenes	--	--	--	--	--
C3-Chrysenes	--	--	--	--	--
C3-Naphthalenes	--	--	--	--	--
C3-Perylenes	--	--	--	--	--
C3-Phenanthrenes	--	--	--	--	--
C3-Pyrenes	--	--	--	--	--
C4-Chrysenes	--	--	--	--	--
C4-Naphthalenes	--	--	--	--	--
C4-Perylenes	--	--	--	--	--
C4-Phenanthrenes	--	--	--	--	--
C4-Pyrenes	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN	SLLI			SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
C5-Chrysenes	--	--	--	--	--
C5-Naphthalenes	--	--	--	--	--
C5-Perylenes	--	--	--	--	--
C5-Phenanthrenes	--	--	--	--	--
C5-Pyrenes	--	--	--	--	--
PCB Aroclors (mg/kg)					
Aroclor 1016	300 U	300 U	144 UJ	300 U	--
Aroclor 1221	600 U	600 U	960 UJ	600 U	--
Aroclor 1232	300 U	300 U	540 UJ	300 U	--
Aroclor 1242	300 U	300 U	360 UJ	300 U	--
Aroclor 1248	300 U	300 U	99 UJ	300 U	--
Aroclor 1254	3,000 U	300 U	30 UJ	300 U	--
Aroclor 1260	300 U	300 U	18 UJ	300 U	--
Total PCB Aroclors[g]	3,000 U	600 U	960 UJ	600 U	--
Total PCB Congeners (mg/kg)					
2-MonoCB-(1)	--	--	--	--	--
3-MonoCB-(2)	--	--	--	--	--
4-MonoCB-(3)	--	--	--	--	--
2,2'-DiCB-(4)	--	--	--	--	--
2,3-DiCB-(5)	--	--	--	--	--
2,3'-DiCB-(6)	--	--	--	--	--
2,4-DiCB-(7)	--	--	--	--	--
2,4'-DiCB-(8)	--	--	--	--	--
2,5-DiCB-(9)	--	--	--	--	--
2,6-DiCB-(10)	--	--	--	--	--
3,3'-DiCB-(11)	--	--	--	--	--
3,4-DiCB-(12)	--	--	--	--	--
3,4'-DiCB-(13)	--	--	--	--	--
3,5-DiCB-(14)	--	--	--	--	--
4,4'-DiCB-(15)	--	--	--	--	--
2,2',3-TriCB-(16)	--	--	--	--	--
2,2',4-TriCB-(17)	--	--	--	--	--
2,2',5-TriCB-(18)	--	--	--	--	--
2,2',6-TriCB-(19)	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN	SLLI			SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
PCBs 20 + 21 + 33	--	--	--	--	--
2,3,4'-TriCB-(22)	--	--	--	--	--
2,3,5-TriCB-(23)	--	--	--	--	--
2,3,6-TriCB-(24)	--	--	--	--	--
2,3',4-TriCB-(25)	--	--	--	--	--
2,3',5-TriCB-(26)	--	--	--	--	--
2,3',6-TriCB-(27)	--	--	--	--	--
2,4,4'-TriCB-(28)	--	--	--	--	--
2,4,5-TriCB-(29)	--	--	--	--	--
2,4,6-TriCB-(30)	--	--	--	--	--
2,4',5-TriCB-(31)	--	--	--	--	--
2,4',6-TriCB-(32)	--	--	--	--	--
2,3',5'-TriCB-(34)	--	--	--	--	--
3,3',4,-TriCB-(35)	--	--	--	--	--
3,3',5-TriCB-(36)	--	--	--	--	--
3,4,4'-TriCB-(37)	--	--	--	--	--
3,4,5-TriCB-(38)	--	--	--	--	--
3,4',5-TriCB-(39)	--	--	--	--	--
2,2',3,3'-TetraCB-(40)	--	--	--	--	--
PCBs 41 + 64 + 71 + 72	--	--	--	--	--
PCBs 42 + 59	--	--	--	--	--
PCBs 43 + 49	--	--	--	--	--
2,2',3,5'-TetraCB-(44)	--	--	--	--	--
2,2',3,6-TetraCB-(45)	--	--	--	--	--
2,2',3,6'-TetraCB-(46)	--	--	--	--	--
2,2',4,4'-TetraCB-(47)	--	--	--	--	--
PCBs 48 + 75	--	--	--	--	--
2,2',4,6-TetraCB-(50)	--	--	--	--	--
2,2',4,6'-TetraCB-(51)	--	--	--	--	--
PCBs 52 + 69	--	--	--	--	--
2,2',5,6'-TetraCB-(53)	--	--	--	--	--
2,2',6,6'-TetraCB-(54)	--	--	--	--	--
2,3,3',4-TetraCB-(55)	--	--	--	--	--
PCBs 56 + 60	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN	SLLI			SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
2,3,3',5-TetraCB-(57)	--	--	--	--	--
2,3,3',5'-TetraCB-(58)	--	--	--	--	--
PCBs 61 + 70	--	--	--	--	--
2,3,4,6-TetraCB-(62)	--	--	--	--	--
2,3,4',5-TetraCB-(63)	--	--	--	--	--
2,3,5,6-TetraCB-(65)	--	--	--	--	--
PCBs 66 + 76	--	--	--	--	--
2,3',4,5-TetraCB-(67)	--	--	--	--	--
2,3',4,5'-TetraCB-(68)	--	--	--	--	--
2,3',5',6-TetraCB-(73)	--	--	--	--	--
2,4,4',5-TetraCB-(74)	--	--	--	--	--
3,3',4,4'-TetraCB-(77)	--	--	--	--	--
3,3',4,5-TetraCB-(78)	--	--	--	--	--
3,3',4,5'-TetraCB-(79)	--	--	--	--	--
3,3',5,5'-TetraCB-(80)	--	--	--	--	--
3,4,4',5-TetraCB-(81)	--	--	--	--	--
2,2',3,3',4-PentaCB-(82)	--	--	--	--	--
PCBs 83 + 112	--	--	--	--	--
PCBs 84 + 92	--	--	--	--	--
PCBs 85 + 116	--	--	--	--	--
2,2',3,4,5-PentaCB-(86)	--	--	--	--	--
PCBs 87 + 117 + 125	--	--	--	--	--
PCBs 88 + 91	--	--	--	--	--
2,2',3,4,6'-PentaCB-(89)	--	--	--	--	--
PCBs 90 + 101	--	--	--	--	--
2,2',3,5,6-PentaCB-(93)	--	--	--	--	--
2,2',3,5,6'-PentaCB-(94)	--	--	--	--	--
2,2',3,5',6-PentaCB-(95)	--	--	--	--	--
2,2',3,6,6'-PentaCB-(96)	--	--	--	--	--
2,2',3,4',5'-PentaCB-(97)	--	--	--	--	--
PCBs 98 + 102	--	--	--	--	--
2,2',4,4',5-PentaCB-(99)	--	--	--	--	--
2,2',4,4',6-PentaCB-(100)	--	--	--	--	--
2,2',4,5',6-PentaCB-(103)	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN	SLLI			SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
2,2',4,6,6'-PentaCB-(104)	--	--	--	--	--
2,3,3',4,4'-PentaCB-(105)	--	--	--	--	--
PCBs 106 + 118	--	--	--	--	--
PCBs 107 + 108	--	--	--	--	--
2,3,3',4,6-PentaCB-(109)	--	--	--	--	--
2,3,3',4',6-PentaCB-(110)	--	--	--	--	--
PCBs 111 + 115	--	--	--	--	--
2,3,3',5',6-PentaCB-(113)	--	--	--	--	--
2,3,4,4',5-PentaCB-(114)	--	--	--	--	--
2,3',4,4',6-PentaCB-(119)	--	--	--	--	--
2,3',4,5,5'-PentaCB-(120)	--	--	--	--	--
2,3',4,5',6-PentaCB-(121)	--	--	--	--	--
2,3,3',4',5'-PentaCB-(122)	--	--	--	--	--
2,3',4,4',5'-PentaCB-(123)	--	--	--	--	--
2,3',4',5,5'-PentaCB-(124)	--	--	--	--	--
3,3',4,4',5-PentaCB-(126)	--	--	--	--	--
3,3',4,5,5'-PentaCB-(127)	--	--	--	--	--
PCBs 128 + 162	--	--	--	--	--
2,2',3,3',4,5-HexaCB-(129)	--	--	--	--	--
2,2',3,3',4,5'-HexaCB-(130)	--	--	--	--	--
PCBs 131 + 133	--	--	--	--	--
PCBs 132 + 161	--	--	--	--	--
PCBs 134 + 143	--	--	--	--	--
2,2',3,3',5,6'-HexaCB-(135)	--	--	--	--	--
2,2',3,3',6,6'-HexaCB-(136)	--	--	--	--	--
2,2',3,4,4',5-HexaCB-(137)	--	--	--	--	--
PCBs 138 + 163 + 164	--	--	--	--	--
PCBs 139 + 149	--	--	--	--	--
2,2',3,4,4',6'-HexaCB-(140)	--	--	--	--	--
2,2',3,4,5,5'-HexaCB-(141)	--	--	--	--	--
2,2',3,4,5,6-HexaCB-(142)	--	--	--	--	--
2,2',3,4,5',6-HexaCB-(144)	--	--	--	--	--
2,2',3,4,6,6'-HexaCB-(145)	--	--	--	--	--
PCBs 146 + 165	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
2,2',3,4',5,6-HexaCB-(147)	--	--	--	--	--
2,2',3,4',5,6'-HexaCB-(148)	--	--	--	--	--
2,2',3,4',6,6'-HexaCB-(150)	--	--	--	--	--
2,2',3,5,5',6-HexaCB-(151)	--	--	--	--	--
2,2',3,5,6,6'-HexaCB-(152)	--	--	--	--	--
2,2',4,4',5,5'-HexaCB-(153)	--	--	--	--	--
2,2',4,4',5,6'-HexaCB-(154)	--	--	--	--	--
2,2',4,4',6,6'-HexaCB-(155)	--	--	--	--	--
2,3,3',4,4',5-HexaCB-(156)	--	--	--	--	--
2,3,3',4,4',5'-HexaCB-(157)	--	--	--	--	--
PCBs 158 + 160	--	--	--	--	--
2,3,3',4,5,5'-HexaCB-(159)	--	--	--	--	--
2,3,4,4',5,6-HexaCB-(166)	--	--	--	--	--
2,3',4,4',5,5'-HexaCB-(167)	--	--	--	--	--
2,3',4,4',5',6-HexaCB-(168)	--	--	--	--	--
3,3',4,4',5,5'-HexaCB-(169)	--	--	--	--	--
2,2',3,3',4,4',5-HeptaCB-(170)	--	--	--	--	--
2,2',3,3',4,4',6-HeptaCB-(171)	--	--	--	--	--
2,2',3,3',4,5,5'-HeptaCB-(172)	--	--	--	--	--
2,2',3,3',4,5,6-HeptaCB-(173)	--	--	--	--	--
2,2',3,3',4,5,6'-HeptaCB-(174)	--	--	--	--	--
2,2',3,3',4,5',6-HeptaCB-(175)	--	--	--	--	--
2,2',3,3',4,6,6'-HeptaCB-(176)	--	--	--	--	--
2,2',3,3',4,5',6'-HeptaCB-(177)	--	--	--	--	--
2,2',3,3',5,5',6-HeptaCB-(178)	--	--	--	--	--
2,2',3,3',5,6,6'-HeptaCB-(179)	--	--	--	--	--
2,2',3,4,4',5,5'-HeptaCB-(180)	--	--	--	--	--
2,2',3,4,4',5,6-HeptaCB-(181)	--	--	--	--	--
PCBs 182 + 187	--	--	--	--	--
2,2',3,4,4',5',6-HeptaCB-(183)	--	--	--	--	--
2,2',3,4,4',6,6'-HeptaCB-(184)	--	--	--	--	--
2,2',3,4,5,5',6-HeptaCB-(185)	--	--	--	--	--
2,2',3,4,5,6,6'-HeptaCB-(186)	--	--	--	--	--
2,2',3,4',5,6,6'-HeptaCB-(188)	--	--	--	--	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
2,3,3',4,4',5,5'-HeptaCB-(189)	--	--	--	--	--
2,3,3',4,4',5,6-HeptaCB-(190)	--	--	--	--	--
2,3,3',4,4',5',6-HeptaCB-(191)	--	--	--	--	--
2,3,3',4,5,5',6-HeptaCB-(192)	--	--	--	--	--
2,3,3',4',5,5',6-HeptaCB-(193)	--	--	--	--	--
2,2',3,3',4,4',5,5'-OctaCB-(194)	--	--	--	--	--
2,2',3,3',4,4',5,6-OctaCB-(195)	--	--	--	--	--
PCBs 196 + 203	--	--	--	--	--
2,2',3,3',4,4',6,6'-OctaCB-(197)	--	--	--	--	--
2,2',3,3',4,5,5',6-OctaCB-(198)	--	--	--	--	--
2,2',3,3',4,5,5',6'-OctaCB-(199)	--	--	--	--	--
2,2',3,3',4,5,6,6'-OctaCB-(200)	--	--	--	--	--
2,2',3,3',4,5',6,6'-OctaCB-(201)	--	--	--	--	--
2,2',3,3',5,5',6,6'-OctaCB-(202)	--	--	--	--	--
2,2',3,4,4',5,6,6'-OctaCB-(204)	--	--	--	--	--
2,3,3',4,4',5,5',6-OctaCB-(205)	--	--	--	--	--
2,2',3,3',4,4',5,5',6-NonaCB-(206)	--	--	--	--	--
2,2',3,3',4,4',5,6,6'-NonaCB-(207)	--	--	--	--	--
2,2',3,3',4,5,5',6,6'-NonaCB-(208)	--	--	--	--	--
DecaCB-(209)	--	--	--	--	--
Total PCB Congeners[h]	--	--	--	--	--
Phenols (mg/kg)					
2,3,4,6-Tetrachlorophenol	--	--	0.01 UJ	2 U	--
2,4,5-Trichlorophenol	--	--	3,190 J	2 U	--
2,4,6-Trichlorophenol	--	--	8,780 J	3,180	--
2,4-Dichlorophenol	--	--	9,220 J	30,500 J	--
2,4-Dimethylphenol	--	--	0.01 UJ	2 U	--
2,4-Dinitrophenol	--	--	0.03 UJ	2 U	--
2,6-Dichlorophenol	--	--	1,210 J	3,880	--
2-Chlorophenol	--	--	18,300 NJ	2 U	--
2-Nitrophenol	--	--	0.01 UJ	2 U	--
3- & 4-Methylphenol (m,p-Cresol)	--	--	422 R	2 U	--
4,6-Dinitro-2-methylphenol	--	--	0.01 UJ	2 U	--
4-Chloro-3-methylphenol	--	--	0.05 UJ	2 U	--

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
4-Nitrophenol	--	--	0.01 UJ	2 U	--
Dinoseb	--	--	0.05 UJ	2 U	--
Pentachlorophenol	--	--	0.01 UJ	2 U	--
Phenol	--	--	0.05 UJ	2 U	--
Tetrachlorophenols, total[i]	--	--	--	--	--
SVOCs (mg/kg)					
1,2,4-Trichlorobenzene	6,470	210 U	476	384	50 U
1,2-Dichlorobenzene	235,000	4,950	22,700	20,200	50 U
1,3-Dichlorobenzene	15,000 U	1,500 U	1,090	1,500 U	50 U
1,4-Dichlorobenzene	87,700	1,890	6,840	5,380	50 U
1-Methylnaphthalene	10,500 U	2,100 U	--	--	--
2,3,4,6-Tetrachlorophenol	--	--	--	--	250 U
2,4,5-Trichlorophenol	2,100 U	210 U	1,510	210 U	50 U
2,4,6-Trichlorophenol	2,100 U	2,350	4,110	1,280	50 U
2,4-Dichlorophenol	2,100 U	43,000	4,880	23,600	50 U
2,4-Dimethylphenol	15,000 U	1,500 U	750 U	1,500 U	50 U
2,4-Dinitrophenol	15,000 U	1,500 U	750 U	1,500 U	250 U
2,4-Dinitrotoluene	2,100 U	210 U	105 U	210 U	50 U
2,6-Dichlorophenol	15,000 U	2,860	--	--	50 U
2,6-Dinitrotoluene	2,100 U	210 U	105 U	210 U	50 U
2-Chloronaphthalene	2,100 U	210 U	105 U	210 U	50 UJ
2-Chlorophenol	2,100 U	1,340	105 U	210 U	50 U
2-Methylnaphthalene	2,100 U	210 U	105 U	210 U	29,000 J
2-Methylphenol	2,100 U	210 U	105 U	210 U	50 U
2-Nitroaniline	2,100 U	210 U	105 U	210 U	250 U
2-Nitrophenol	2,100 U	210 U	105 U	210 U	50 U
3- & 4-Methylphenol (m,p-Cresol)	2,100 U	210 U	105 U	--	--
3,3-Dichlorobenzidine	15,000 U	1,500 U	750 U	1,500 U	250 UJ
3-Nitroaniline	15,000 U	1,500 U	750 U	1,500 U	250 UJ
4,6-Dinitro-2-methylphenol	15,000 U	1,500 U	750 U	1,500 U	250 U
4-Bromophenylphenyl ether	2,100 U	210 U	105 U	210 U	50 U
4-Chloro-3-methylphenol	2,100 U	210 U	105 U	210 U	50 U
4-Chloroaniline	15,000 U	1,500 U	750 U	1,500 U	50 UJ
4-Chlorophenylphenyl ether	2,100 U	210 U	105 U	210 U	50 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
4-Methylphenol	--	--	--	210 U	50 U
4-Nitroaniline	2,100 U	210 U	105 U	210 U	250 U
4-Nitrophenol	15,000 U	1,500 U	750 U	1,500 U	250 U
Acenaphthene	2,100 U	210 U	105 U	210 U	52,000 J
Acenaphthylene	2,100 U	210 U	105 U	210 U	50 U
Aniline	--	--	--	--	--
Anthracene	2,100 U	210 U	105 U	210 U	50 U
Azobenzene	--	--	--	--	--
Benzidine	--	--	--	--	--
Benzo(a)anthracene	2,100 U	210 U	105 U	210 U	50 U
Benzo(a)pyrene	2,100 U	210 U	105 U	210 U	50 U
Benzo(b)fluoranthene	2,100 U	210 U	105 U	210 U	50 U
Benzo(ghi)perylene	2,100 U	210 U	105 U	210 U	50 UJ
Benzo(j)fluoranthene	--	--	--	--	--
Benzo(k)fluoranthene	2,100 U	210 U	105 U	210 U	50 U
Benzoic acid	15,000 U	1,500 U	750 UJ	1,500 U	250 U
Benzyl alcohol	2,100 U	210 U	105 U	210 U	50 U
Bis(2-chloro-1-methylethyl)ether	--	--	--	--	--
Bis(2-chloroethoxy)methane	2,100 U	210 U	105 U	210 U	50 U
Bis(2-chloroethyl)ether	2,100 U	210 U	105 U	210 U	50 U
Bis(2-chloroisopropyl)ether	2,100 U	210 U	105 U	210 U	50 U
Bis(2-ethylhexyl)phthalate	60,000 U	6,000 U	3,000 U	6,000 U	50 U
Butylbenzylphthalate	2,100 U	210 U	105 U	210 U	50 U
Carbazole	--	--	--	--	--
Chrysene	2,100 U	210 U	105 U	210 U	50 U
Dibenzo(a,h)anthracene	1,800 U	180 U	90 U	210 U	50 U
Dibenzofuran	2,100 U	210 U	105 U	210 U	30,000 J
Diethyl phthalate	2,100 U	210 U	105 U	210 U	50 UJ
Dimethyl phthalate	2,100 U	210 U	105 U	210 U	50 U
Di-n-butyl phthalate	15,000 U	1,500 U	750 U	1,500 U	50 U
Di-n-octyl phthalate	2,100 U	210 U	105 U	210 U	50 U
Dinoseb	75,000 U	15,000 U	--	--	--
Fluoranthene	2,100 U	210 U	105 U	210 U	54,000
Fluorene	2,100 U	210 U	105 U	210 U	36,000 J

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
Hexachlorobenzene	2,100 U	210 U	105 U	210 U	50 U
Hexachlorobutadiene	15,000 U	1,500 U	750 U	1,500 U	50 U
Hexachlorocyclopentadiene	15,000 U	1,500 U	750 U	1,500 U	250 U
Hexachloroethane	15,000 U	1,500 U	750 U	1,500 U	50 U
Indeno(1,2,3-cd)pyrene	2,100 U	210 U	105 U	210 U	50 UJ
Isophorone	2,100 U	210 U	105 U	210 U	50 U
Naphthalene	2,100 U	210 U	105 U	210 U	110,000
Nitrobenzene	2,100 U	210 U	105 U	210 U	50 U
N-Nitrosodimethylamine	--	--	--	--	--
N-Nitrosodiphenylamine	2,100 U	210 U	105 U	210 U	50 U
N-Nitrosodipropylamine	2,100 U	210 U	105 U	210 U	50 U
Pentachlorophenol	15,000 U	1,500 U	750 U	1,500 U	250 U
Phenanthrene	2,100 U	210 U	105 U	210 U	110,000
Phenol	2,100 U	210 U	105 U	210 U	50 UJ
Pyrene	2,100 U	210 U	105 U	210 U	44,000 J
Pyridine	--	--	--	--	--
Tetrachlorophenols, total	15,000 U	1500 U	--	--	--
cPAH TEQ[j][3]	2,100 UT	210 UT	105 UT	210 UT	50 UJT
Total PAH[k]	2,100 UT	210 UT	105 UT	210 UT	435,000 JT

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
Hydrocarbon Identification (Detect/Non-detect)					
Gasoline	DETECT	DETECT	--	--	DETECT
Diesel	DETECT	DETECT	--	--	DETECT
Lube oil	DETECT	DETECT	--	--	DETECT
TPH (mg/kg)					
Gasoline-range hydrocarbons	--	--	--	--	--
Diesel-range hydrocarbons	262,000	128,000	--	338,000	400,000
Lube-oil-range hydrocarbons	39,200 U	19,800 U	--	500 U	99,000
VOCs, nonhalogenated (mg/kg)					
Isobutanol	--	--	957 J	2630	--
VOCs (mg/kg)					
1,1,1,2-Tetrachloroethane	92.5 U	185 U	126 UJ	25.2 U	0.028 U
1,1,1-Trichloroethane	61.3 U	123 U	50 U	10 U	0.08 U
1,1,2,2-Tetrachloroethane	211 UJ	422 UJ	134 U	26.9 U	0.078 U
1,1,2-Trichloroethane	181 U	362 U	123 U	24.6 U	0.072 U
1,1-Dichloroethane	119 U	238 U	107 U	21.4 U	0.061 U
1,1-Dichloroethene	119 U	238 U	75.5 U	15.1 U	0.149 U
1,1-Dichloropropane	109 U	218 U	109 U	21.9 U	0.044 U
1,1-Dichloropropene	--	--	--	--	--
1,2,3-Trichlorobenzene	700	338 U	465	8.1 U	0.031 U
1,2,3-Trichloropropane	492 U	984 U	72 U	14.4 U	0.076 U
1,2,4-Trichlorobenzene	4,990	940	2,720	17 U	0.042 U
1,2,4-Trimethylbenzene	7,400	13,300	33,900	457	0.035 U
1,2-Dibromo-3-chloropropane	260 U	520 U	168 U	33.6 U	0.154 U
1,2-Dibromoethane	116 U	232 U	45 U	9 U	0.03 U
1,2-Dichlorobenzene	183,000	20,400	34,800	695	0.038 U
1,2-Dichloroethane	112 U	224 U	92.5 U	18.5 U	0.055 U
1,2-Dichloropropane	74.5 U	149 U	136 U	27.2 U	0.054 U
1,3,5-Trimethylbenzene	2,010	6,000	10,400	220	0.025 U
1,3-Dichlorobenzene	7,880	960	8,900	36	0.038 U
1,3-Dichloropropane	174 U	348 U	133 U	26.6 U	0.059 U
1,4-Dichlorobenzene	71,000	7,000	61,300	196	0.049 U
2,2-Dichloropropane	80.9 UJ	162 UJ	146 U	29.2 U	0.122 U
2-Butanone	1,480 U	2,960 U	800 U	160 U	0.25 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
2-Chlorotoluene	110 U	220 U	82.5 U	16.5 U	0.03 U
2-Ethyl-1-hexanol	100,000 UJ	200,000 UJ	--	--	--
2-Hexanone	572 U	1,140 U	286 U	57.2 U	0.125 U
4-Chlorotoluene	104 U	208 U	59 U	11.8 U	0.034 U
4-Isopropyltoluene	96.8 U	194 U	170	13.4 U	0.031 U
4-Methyl-2-pentanone	1,170 U	2,340 U	243 U	49 U	0.25 U
Acetone	26,700	12,700	2,500 U	547 U	0.25 U
Benzene	44.4 U	88.8 U	1,270	12.1 U	0.066 U
Bromobenzene	122 U	244 U	82.5 U	16.5 U	0.049 U
Bromodichloromethane	102 U	204 U	70.5 U	14.1 U	0.049 U
Bromoform	158 U	316 U	80.5 U	16.1 U	0.03 U
Bromomethane	50.9 U	102 U	303 UJ	60.6 U	0.093 U
Carbon disulfide	71.9 U	144 U	161 U	32.2 U	0.125 U
Carbon tetrachloride	76.4 U	153 U	109 U	21.8 U	0.137 U
Chlorobenzene	1,350	162 U	5,570	14 U	0.032 U
Chlorobromomethane	164 U	328 U	108 U	21.7 U	0.087 U
Chloroethane	107 U	214 U	191 UJ	38.1 U	0.174 U
Chloroform	72.6 U	145 U	212 U	42.3 U	0.061 U
Chloromethane	67.2 U	134 U	137 U	27.4 U	0.127 U
cis-1,2-Dichloroethene	126 U	252 U	93.5 U	18.7 U	0.132 U
cis-1,3-Dichloropropene	49.5 U	99 U	56.5 U	11.3 U	0.072 U
Dibromochloromethane	112 U	224 U	49.5 U	9.9 U	0.028 U
Dibromomethane	147 U	294 U	63.5 U	12.7 U	0.066 U
Dichlorodifluoromethane (Freon 12)	118 U	236 U	162 U	32.4 U	0.066 UJ
Ethylbenzene	2,000	145,000	52,400	902	0.057 U
Hexachlorobutadiene	694 U	1,390 U	132 U	26.3 U	0.044 U
Isobutanol	14,400 UJ	28,800 UJ	--	--	2.5 U
Isopropylbenzene	100	1,380	2,160	40.9	0.025 U
m,p-Xylene	7,150	439,000	168,000	5,210	0.072 U
Methyl iodide	1,350 U	2,700 U	5,000 U	--	0.25 UJ
Methyl tert-butyl ether	--	--	--	--	0.25 U
Methylene chloride	960 U	3,100	3,990	200 U	0.132 U
Naphthalene	141 U	282 U	435	10.4 U	25,000 J
n-Butylbenzene	113 U	226 U	170	13.2 U	0.036 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BN SLLI				SOU
Location:	RP-04-41	MW-08-27	MW-08-46	P-07	PZ-03-40W
Collection Date:	12/17/2003	12/17/2003	10/4/2000	6/24/1999	12/1/2006
n-Propylbenzene	470	2,880	4,390	127	0.034 U
o-Xylene	2,440	86,200	40,600 J	885	0.045 U
sec-Butylbenzene	74.5 U	149 U	260	9.2 U	0.028 U
Styrene	88.9 U	178 U	77 U	15.4 U	0.029 U
tert-Butylbenzene	152 U	304 U	84 U	16.8 U	0.025 U
Tetrachloroethene	169 U	338 U	525	27 U	0.036 U
Toluene	200	4,000	12,400	58	0.073 U
trans-1,2-Dichloroethene	89.7 U	179 U	97 U	19.4 U	0.112 U
trans-1,3-Dichloropropene	82.9 U	166 U	88.5 U	17.7 U	0.045 U
Trichloroethene	120 U	6,840	15,500	111	0.052 U
Trichlorofluoromethane (Freon 11)	89.7 U	179 U	123 U	24.5 U	0.184 U
Vinyl chloride	57.4 R	115 R	77.5 U	155 U	0.161 U
Xylenes, total[l]	9,590	525,000	209,000 J	6,100	0.072 U

Table 1
Summary of NAPL Analytical Results
MGP Dioxin/Furan Evaluation

Notes

-- = no data or not analyzed.
cST = centistokes.
cPAH = carcinogenic polycyclic aromatic hydrocarbon.
g/cc = grams per cubic centimeter.
J = result is estimated.
J+ = result is estimated, but the result may be biased high.
mg/kg = milligrams per kilogram.
MGP = manufactured gas plant.
PAH = polycyclic aromatic hydrocarbon.
PCB = polychlorinated biphenyl.
pg/g = picograms per gram.
SVOC = semivolatile organic compund.
TEF = toxic equivalence factor.
TEQ = toxicity equivalence.
TPH = total petroleum hydrocarbons.
U = result is non-detect at the estimated detection limit or method reporting limit.
UJ = result is non-detect with an estimated detection limit.
VOC = volatile organic compounds.
[a]Dioxin/furan TEQs are calculated as the sum of each congener concentration multiplied by the corresponding TEF value. Non-detect congeners are also multiplied by one-half.
[b]Total chlordanes is the sum of alpha-chlordane, beta-chlordane, cis-nonachlor, oxychlordane, and trans-chlordane. When all results are non-detect the highest detection limit is used.
[c]Total DDD is the sum of 2,4'-DDD and 4,4'-DDD. When all results are non-detect the highest detection limit is used.
[d]Total DDE is the sum of 2,4'-DDE and 4,4'-DDE. When all results are non-detect the highest detection limit is used.
[e]Total DDT is the sum of 2,4'-DDT and 4,4-DDT. When all results are non-detect the highest detection limit is used.
[f]Total DDx is the sum of 2,4'-DDD, 2,4'-DDE, 2,4'-DDT, 4,4'-DDD, 4,4'-DDE, and 4,4-DDT. When all results are non-detect the highest detection limit is used.
[g]Total PCB Aroclors is the sum of all PCB Aroclors. When all results are non-detect, the higher detection limit is used.
[h]Total PCB congeners is the sum of all PCB congeners. Non-detect results not included in the sum.
[i]Total tetrachlorophenols summation method is unknown.
[j]cPAH TEQ calculated by multiplying cPAH results by toxicity equivalence factors. Non-detect results are also multiplied by one-half. When all cPAHs are non-detect, the highest reporting limit is shown.
[k]Total PAHs is the sum of 2-methylnaphthalene, acenaphthylene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b,j+k)fluoranthenes, benzo(g,h,i)perylene, chrysene, dibenz (a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd), phenanthrene, pyrene, and naphthalene, and . Non-detect results are summed at one-half the detection limit. When all results are non-detect the highest detection limit is used.

References

[1]Sample information and results obtained from the following documents:
AMEC. 2010. *RI/SCE Report, RP - Portland Site, Portland, Oregon*. AMEC Earth & Environmental, Inc. November 19.
Siltronic's monthly progress reports, prepared under the 2000 Joint Order. Samples collected in 2019 by Maul Foster Alongi, Inc.
[2]Van den Berg, M. et al. 1998. "Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife." Environmental Health Perspectives. 106 (12):775–792.
[3]EPA. 1993. *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons*. 600/R-93/089. U.S. Environmental Protection Agency. July.

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	ARK-03	ARK-04	ARK-06	ARK-08	B-122	B-122	B-122	B-123	B-123	B-123	B-124	B-124	B-124	B-125	B-125
Sample Name:	069-01	029-01	053-01	011-01	B-122-0-2	B-122-4-6	B-122-8-10	B-123-0-2	B-123-4-6	B-123-8-10	B-124-0-2	B-124-4-6	B-124-8-10	B-125-3-5	B-125-8-10
Collection Date:	8/22/2005	8/12/2005	8/18/2005	8/10/2005	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010
Collection Depth (ft bgs):	5-6	5-6	2-3	12-13	0-2	4-6	8-10	0-2	4-6	8-10	0-2	4-6	8-10	3-5	8-10
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	53.9 J	23.9 J	10.5 J	15 J	4 J	3.9 J	1.5 J	110	4.9 J	3 J	140	2.2 J	4.2 J	37	84 J
1,2,3,4,6,7,8-HpCDF	18.1 J	23 J	3.44 J	4 J	240	15 J	1.3 J	650	68 J	1.1 J	2,300	12 J	1.9 J	34	120 J
1,2,3,4,7,8,9-HpCDF	0.948 J	8.52 J	0.575 J	0.858 J	760	12 J	1.3 J	240	29 J	0.35 J	1,400	5.8 J	1 J	12	14
1,2,3,4,7,8-HxCDD	0.225 J	0.256 J	0.314 J	0.331 J	5.6 U	7 UJ	5.9 UJ	2.3 J	0.19 J	6.9 UJ	58 U	6.9 UJ	7 UJ	1.2 J	5.6 J
1,2,3,4,7,8-HxCDF	1.66 J	44.1 J	1.2 J	2.48 J	750	36 J	1.5 J	2,200	260 J	1.1 J	5,900	51 J	5.2 J	90	80
1,2,3,6,7,8-HxCDD	1.9 J	1.1 J	0.91 J	0.88 J	5.6 U	0.32 J	5.9 UJ	4.1 J	0.3 J	6.9 UJ	5.3 J	6.9 UJ	0.27 J	2.8 J	9.1
1,2,3,6,7,8-HxCDF	1.09 J	12.3 J	2.13 J	1.28 J	220	10 J	0.51 U	540	64 J	0.5 J	1,700	10 J	1.4 J	21	51
1,2,3,7,8,9-HxCDD	0.88 J	0.876 J	0.59 J	0.74 J	0.2 J	0.38 J	5.9 UJ	2.4 J	0.57 J	0.21 J	58 U	0.32 J	0.5 J	1.1 J	5.5 J
1,2,3,7,8,9-HxCDF	0.081 J	0.82 J	0.282 J	0.076 J	16	0.86 J	5.9 UJ	23	6.1 J	6.9 UJ	48 J	1.1 J	7 UJ	1.4 J	2.3 J
1,2,3,7,8-PeCDD	0.194 U	0.231 J	0.462 J	0.193 J	5.6 U	7 UJ	5.9 UJ	58 U	6.8 UJ	6.9 UJ	58 U	6.9 UJ	7 UJ	0.58 J	8.4
1,2,3,7,8-PeCDF	0.425 J	26.5 J	0.459 J	1.34 J	500	31 J	1 J	1400	290 J	1.2 J	3,800	30 J	3.7 J	50	60
2,3,4,6,7,8-HxCDF	0.338 J	2.06 J	2.14 J	0.734 J	32	1.5 J	5.9 UJ	91	11 J	6.9 UJ	250	1.7 J	7 UJ	3.8 J	44 J
2,3,4,7,8-PeCDF	0.35 J	10.7 J	1.42 J	0.879 J	190	9.1 J	0.55 J	490	75 J	0.4 J	1,400	9.7 J	1.6 J	27	73 J
2,3,7,8-TCDD	0.134 U	0.095 U	0.168 J	0.095 U	1.1 U	1.4 UJ	1.2 UJ	12 U	1.4 UJ	1.4 UJ	12 U	1.4 UJ	1.4 UJ	0.28 J	3
2,3,7,8-TCDF	0.506 J	21.9 J	0.776 U	1.59 J	410 J	26 J	0.99 J	2400	260 J	0.94 J	5,000	12 J	2.8 J	40	42 J
OCDD	561 J	238 J	96.1	132 J	30	30 J	14 J	960	36 J	23 J	1,300	15 J	33 J	310	590 J
OCDF	35.3 J	36.7 J	7.25 J	7.67 J	260	15 J	2.7 J	760	76 J	1.6 J	2,500	11 J	3.1 J	83	99
Dioxin/Furan TEQ[(a)(2)]	1.89 JT	13.3 JT	2.08 JT	1.64 JT	231 JT	18.5 JT	6.39 JT	784 JT	99.3 JT	7.38 JT	1,920 JT	18.5 JT	8.69 JT	27.5 JT	61.4 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema										BNSF				
Location:	B-126	B-126	B-127	B-127	B-127	B-128	B-128	B-129	RP-08-107	RP-08-107	BEACH-03	BEACH-03	EX-S-02-117	EX-S-02-117	EX-S-02-117
Sample Name:	B-126-3-5	B-126-8-10	B-127-10-12	B-127-10-12-D	B-127-15-17	B-128-10-12	B-128-15-17	B-129-0-2	077-01	078-01	--	--	--	--	--
Collection Date:	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	1/21/2010	9/21/2005	9/21/2005	8/14/2007	8/14/2007	6/11/2008	6/11/2008	6/11/2008
Collection Depth (ft bgs):	3-5	8-10	10-12	10-12	15-17	10-12	15-17	0-2	86-88	92-93	0-0.5	1-1.5	108-110	110-116	91-101
Sample Type:	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	130	4.8 J	9.6 J	31 J	7.6	5.1 J	2.7 J	82	1.36 J	25.8	528	1000	1.14 J	0.238 U	3.87 J
1,2,3,4,6,7,8-HpCDF	130	5.8 J	3.7 J	160 J	5.7 J	3.7 J	1.2 J	27	0.05 U	0.173 U	99	182	0.475 U	0.502 U	0.615 J
1,2,3,4,7,8,9-HpCDF	56	1.6 J	2.2 J	71 J	1 J	1.4 J	0.26 J	8.6	0.078 U	0.076 U	10	23	0.225 U	0.238 U	0.241 U
1,2,3,4,7,8-HxCDD	4 J	6 U	6.5 U	0.59 J	7.3 U	0.26 J	6.6 U	1.7 J	0.057 J	0.138 J	5.87	12.9	0.231 U	0.244 U	0.248 U
1,2,3,4,7,8-HxCDF	350	12	2.6 J	800 J	4.2 J	5.1 J	1.1 J	37	0.143 U	0.139 U	25.3	115	0.299 U	0.316 U	0.32 U
1,2,3,6,7,8-HxCDD	7.8	0.33 J	0.5 J	1.6 J	0.24 J	0.3 J	6.6 U	3.1 J	0.095 J	0.15 J	19.4	44.9	0.134 U	0.142 U	0.144 U
1,2,3,6,7,8-HxCDF	82	3 J	1.4 J	180 J	1.3 J	1.6 J	0.29 J	10	0.149 U	0.145 U	9.44	32.8	0.12 U	0.127 U	0.129 U
1,2,3,7,8,9-HxCDD	7.1	0.23 J	0.29 J	1.1 J	7.3 U	0.38 J	6.6 U	2.3 J	0.227 J	0.541 J	12.9	24.7	0.212 U	0.224 U	0.467 J
1,2,3,7,8,9-HxCDF	5.8	0.17 J	6.5 U	6.6	7.3 U	7.2 U	6.6 U	0.49 J	0.143 U	0.139 U	4.94	12 J	0.248 U	0.262 U	0.265 U
1,2,3,7,8-PeCDD	3.9 J	6 U	6.5 U	0.45 J	7.3 U	7.2 U	6.6 U	0.68 J	0.058 J	0.144 U	3.31 J	8.89	0.228 U	0.241 U	0.244 U
1,2,3,7,8-PeCDF	200	7.3	0.86 J	220 J	2 J	1.9 J	0.39 J	20	0.127 U	0.124 U	14.7	59.2	0.291 U	0.307 U	0.312 U
2,3,4,6,7,8-HxCDF	15	0.58 J	0.24 J	17 J	0.16 J	0.24 J	6.6 U	2.8 J	0.087 U	0.084 U	7.56	14.6	0.315 U	0.333 U	0.338 U
2,3,4,7,8-PeCDF	87	3 J	6.5 UJ	37 J	0.39 J	0.64 J	0.13 J	8.3	0.138 U	0.134 U	11.8	35	0.185 U	0.195 U	0.198 U
2,3,7,8-TCDD	0.85 J	1.2 U	1.3 U	0.27 J	0.5 J	1.4 U	1.3 U	0.22 J	0.07 U	0.055 U	1.95	14.1	0.0519 U	0.0548 U	0.0556 U
2,3,7,8-TCDF	180	5.7	0.78 J	15 J	2.7	1 J	0.48 J	20	0.075 U	0.072 U	9.2	43.3	0.12 U	0.127 U	0.129 U
OCDD	1300	38	140 J	410 J	83	39	30	760	11 U	440	4,000 J	9,000 J	5.79 U	2.69 U	27.9
OCDF	210	9.1 J	6.4 J	160 J	11 J	5.1 J	3.3 J	57	0.08 U	0.174 U	316	598	0.56 U	0.592 U	0.6 U
Dioxin/Furan TEQ[(a)(2)]	106 JT	9.46 JT	7.31 JT	123 JT	9.01 JT	8.45 JT	6.89 JT	13.2 JT	0.18 JT	0.617 JT	26.4 JT	80.2 JT	0.239 JT	0.241 UT	0.344 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	HAP-07	HAP-07	HAP-08	HAP-08	HDD-101	HDD-102	HDD-102	HDD-103	HDD-201	HDD-201	HDD-202	HDD-202	HDD-202	HDD-202	HDD-203
Sample Name:	--	--	--	--	--	--	--	--	021-01	021-02	034-01	036-01	037-01	035-01	020-01
Collection Date:	1/9/2018	1/9/2018	1/9/2018	1/9/2018	8/16/2002	8/16/2002	8/16/2002	8/16/2002	10/12/2004	10/12/2004	10/18/2004	10/18/2004	10/18/2004	10/18/2004	10/12/2004
Collection Depth (ft bgs):	0-1	2.5-3.5	0-1	2.5-3.5	0.5-1.5	0.2-1.5	5.5-6	4-5	0-2	0-2	0-2	10-12	15-17	5-7	0-2
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	418	356	1300	15.7	26 J	240 J	38 J	200 J	0.22 U	0.2 U	10	3.3	1.5 U	3.4	420
1,2,3,4,6,7,8-HpCDF	42.7	31	237	5.79	4.1 J	200 J	140 J	210 J	0.12 U	0.12 U	2.3 U	0.24 U	0.086 U	0.12 U	360
1,2,3,4,7,8,9-HpCDF	6.58	3.74	18	0.516	0.45 UJ	44 J	46 J	9.2 J	0.15 U	0.14 U	0.38 U	0.11 U	0.059 U	0.11 U	130
1,2,3,4,7,8-HxCDD	4.69	3.28	122	0.481 UK	0.51 UJ	2.4 UJ	0.44 UJ	2.4 UJ	0.17 U	0.21 U	0.28 U	0.16 U	0.13 U	0.14 U	3.9
1,2,3,4,7,8-HxCDF	11.7	5.87	40.6	1.22 UK	1.7 UJ	160 J	470 J	26 J	0.11 U	0.14 U	1.5 U	0.25 U	0.15 U	0.12 U	610
1,2,3,6,7,8-HxCDD	16.8	7.89	82.2	1.06	1.3 UJ	13 J	2.9 UJ	12 J	0.14 U	0.17 U	0.74 U	0.25 U	0.11 U	0.16 U	20
1,2,3,6,7,8-HxCDF	4.27 UK	2.46	20.8	0.905	0.62 UJ	50 J	140 J	21 J	0.1 U	0.13 U	0.44 U	0.093 U	0.059 U	0.056 U	160
1,2,3,7,8,9-HxCDD	17.9	13.9	46.3	1.31	1.5 UJ	6.4 J	1.4 UJ	4.1 UJ	0.15 U	0.18 U	0.98 U	0.35 U	0.24 U	0.53 U	9.9
1,2,3,7,8,9-HxCDF	0.27	0.131 UK	0.778 UK	0.0914 U	0.25 UJ	1.8 UJ	8.9 J	0.63 UJ	0.12 U	0.16 U	0.23 U	0.08 U	0.073 U	0.068 U	5.5
1,2,3,7,8-PeCDD	6.54	3.36	49.2	1.08	0.99 UJ	2.4 UJ	0.59 UJ	1.8 UJ	0.2 U	0.26 U	0.31 U	0.21 U	0.2 U	0.16 U	3.5
1,2,3,7,8-PeCDF	1.92	0.914 U	30.7	0.463	1.2 UJ	88 J	380 J	12 J	0.14 U	0.14 U	0.71 U	0.11 U	0.099 U	0.081 U	310
2,3,4,6,7,8-HxCDF	2.62	1.43	13.1	0.781	0.38 UJ	9.8 J	19 J	4.7 J	0.11 U	0.14 U	0.18 U	0.068 U	0.059 U	0.068 U	26
2,3,4,7,8-PeCDF	3.43	1.64	46 UK	0.982	0.55 UJ	35 J	97 J	6.8 J	0.14 U	0.14 U	0.4 U	0.11 U	0.099 U	0.081 U	110
2,3,7,8-TCDD	10.1	3.22	543	2.21	1.2 J	4.1 J	2.8 J	3.3 J	0.35 U	0.75	0.66 U	0.35 U	0.11 U	0.081 U	6.3
2,3,7,8-TCDF	2.77 J	1.14 J	125 J	0.66 J	0.99 J	61 J	56 J	9 J	0.17 U	0.16 U	0.71	0.21 U	0.2 U	0.14 U	170
OCDD	5,460	4,470	13,500	105	240 J	3,000 J	500 J	3,000 J	6	2.2 U	81	23	11	21	4,000
OCDF	234	163	754 UK	11.2	11 J	400 J	98 J	290 J	0.31 U	0.24 U	4.7 U	0.66 U	0.16 U	0.25 U	770
Dioxin/Furan TEQ[a][2]	30.2 JT	16 JT	672 JT	4.45 JT	2.67 JT	55.5 JT	116 JT	19.9 JT	0.352 T	1.01 T	0.855 T	0.39 T	0.203 T	0.2 T	163 T

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	HDD-204	HDD-204	HDD-204	HDD-204	HDD-205	HDD-206	HDD-207	HDD-207	HDD-207	HDD-207	HDD-207	HDD-208	HDD-209	HDD-210	HDD-210
Sample Name:	030-01	032-01	033-01	031-01	016-01	017-01	026-01	026-02	028-01	029-01	027-01	013-01	014-01	022-01	024-01
Collection Date:	10/18/2004	10/18/2004	10/18/2004	10/18/2004	10/12/2004	10/12/2004	10/18/2004	10/18/2004	10/18/2004	10/18/2004	10/18/2004	10/12/2004	10/12/2004	10/18/2004	10/18/2004
Collection Depth (ft bgs):	0-2	10-12	15-17	5-7	0-2	0-2	0-2	0-2	10-12	13-15	5-7	0-2	0-2	0-2	10-12
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	280	1 U	2.1 U	60	350	170	170	170	13	2 U	32	290	100	170	89
1,2,3,4,6,7,8-HpCDF	290	0.37 U	0.34 U	130	130	200	120	200	23	1.2 U	50	140	61	160	150
1,2,3,4,7,8,9-HpCDF	100	0.15 U	0.12 U	8.6	12	33	21	49	2.5 U	1.5 U	11	34	9.5	18	12
1,2,3,4,7,8-HxCDD	3.3 U	0.18 U	0.14 U	1 U	7.2	1.4 U	2 U	2.3 U	1.1 U	2.1 U	1.2 U	4.3	1.1 U	1.7 U	3.1 U
1,2,3,4,7,8-HxCDF	450	0.15 U	0.13 U	46	30	150	98	380	16	1.6 U	52	150	38	79	72
1,2,3,6,7,8-HxCDD	15	0.14 U	0.1 U	5.3	15	8.1	9.6	9.3	1.3 U	1.9 U	2.4 U	13	4.8	8.5	5.1
1,2,3,6,7,8-HxCDF	160	0.11 U	0.075 U	18	10	43	30	90	5.4	1.5 U	14	40	11	27	25
1,2,3,7,8,9-HxCDD	5.5	0.15 U	0.27 U	2.1 U	7.6	3.6	5	4.5	1 U	1.9 U	1.1 U	6.1	2.7 U	4.1	2.9 U
1,2,3,7,8,9-HxCDF	9	0.14 U	0.1 U	1.3 U	0.46 U	1.4 U	1.9 U	2.5 U	1.2 U	1.9 U	1.6 U	1.8 U	0.49 U	1.7 U	3.1 U
1,2,3,7,8-PeCDD	2.2 U	0.28 U	0.2 U	1.2 U	3.2	2 U	3.1	2.7 U	1.3 U	2.3 U	1.6 U	2.7 U	1.1 U	2.3 U	1.7 U
1,2,3,7,8-PeCDF	560	0.16 U	0.12 U	77	14	76	67	120	11	1.5 U	34	100	21	56	55
2,3,4,6,7,8-HxCDF	43	0.13 U	0.088 U	4.7	4	8.1	7.7	9.2	1 U	1.7 U	4.8	9	2.7 U	7.5	5.5
2,3,4,7,8-PeCDF	350	0.16 U	0.12 U	26	7.1	30	25	35	4.1	1.5 U	18	42	8.9	23	19
2,3,7,8-TCDD	2.9	0.14 U	0.1 U	0.51 U	4.2	3.6	4.4	4.4	0.69 U	1 U	1.1	3.6	1.8	2.2	1.1 U
2,3,7,8-TCDF	720 J	0.25 U	0.19 U	37	10	58	33	45	4.3	0.73 U	19	57	13	38	29
OCDD	3,000	9.5	20	700	3,000	2,000	2,000	2,000	150	17	350	3,000	980	3,000	1,000
OCDF	570	0.81 U	1.2 U	84	370	270	220	220	20	2.7 U	58	320	160	240	120
Dioxin/Furan TEQ[a][2]	275 JT	0.283 T	0.206 T	24.6 T	24.3 T	48.7 T	39.3 T	79.9 T	5.84 T	2.31 T	19 T	56 T	15 T	34 T	26 T

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	HDD-210	HDD-210	IAP-06	IAP-06	IAP-11	IAP-11	IAP-12	IAP-12	LA-09	LA-09	LA-12	LA-12	LA-12	LADD-103	LADD-103
Sample Name:	025-01	023-01	--	--	--	--	--	--	--	--	--	--	--	007-01	008-01
Collection Date:	10/18/2004	10/18/2004	1/10/2018	1/10/2018	1/9/2018	1/9/2018	1/9/2018	1/9/2018	12/26/2000	12/26/2000	12/18/2000	12/18/2000	12/18/2000	10/11/2004	10/11/2004
Collection Depth (ft bgs):	13-15	5-7	0-1	2.5-3.5	0-1	2.5-3.5	0-1	2.5-3.5	12-14	6-7	15-17	21-23	3-5	0-1	1-5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	1.1 U	110	641	6.02	4.64	39.4	473	5.29	12.8 U	26.5	558	39.2	307	910	230
1,2,3,4,6,7,8-HpCDF	0.61 U	190	72.3	1.31	0.202	3.44	142	2.76	7.9 J	9.7 J	591	18	106	430	4,000 J
1,2,3,4,7,8,9-HpCDF	0.74 U	10	9.83	0.151	0.111 U	0.365	12.3	0.27	0.37 J	4.14 U	18.8	1.3 J	5.3	22	83
1,2,3,4,7,8-HxCDD	1.1 U	1.9 U	3.01	0.105 U	0.135 UK	0.42 UK	8.39	0.248	0.29 U	1.03 U	15.1	0.67 J	6.5	18	35
1,2,3,4,7,8-HxCDF	0.8 U	68	0.107 U	0.34	0.114 U	0.483 UK	38.2	0.967	1.7 J	2.2 U	85.8	4.1 J	20.7	56	390
1,2,3,6,7,8-HxCDD	0.97 U	11	14.2	0.599	0.262	0.845	29.6	0.676	0.86 J	1.03 U	66.4	2.3 J	23.1	64	110
1,2,3,6,7,8-HxCDF	0.75 U	21	19.3	0.226	0.115 U	0.23	14.2	1.57	0.95 U	1.3 J	37.1	2.1 J	11.2	30	230
1,2,3,7,8,9-HxCDD	0.99 U	5.1	15.3	0.498	0.566	2.52 UK	20.2	0.519	0.9 J	2.59 U	34.3	3.4 J	16.4	34	59
1,2,3,7,8,9-HxCDF	0.95 U	2.1 U	0.24	0.105 U	0.108 U	0.124 U	0.364	0.104 U	4.03 U	0.6 UJ	1.6 J	0.16 J	0.65 J	0.97 U	3.7
1,2,3,7,8-PeCDD	1 U	2.4 U	49.7	0.865	0.105 U	0.216	12.6	0.412 UK	0.34 J	1.24 U	71.5	1.2 J	16.7	66	180
1,2,3,7,8-PeCDF	0.76 U	58	13.4	0.281	0.111 U	0.134	9.18	0.353	1.22 U	1.34 U	64 U	1.3 U	33.8 U	61	970
2,3,4,6,7,8-HxCDF	0.83 U	5	2.6	0.119	0.106 U	0.122 U	7.03	1.77	0.74 J	0.85 U	48.3	2.7 J	10.4	27	190
2,3,4,7,8-PeCDF	0.74 U	19	8.15	0.249	0.11 U	0.15	14.9	1.28	1.4 U	1.55 UJ	84.4	2.2 J	15.8	68	380
2,3,7,8-TCDD	0.61 U	1.2 U	1070	13.2	0.114 U	0.687	102	0.809 J	0.8 J	6.1 J	9,000 J	10.7	247	5,000 J	45,000
2,3,7,8-TCDF	0.59 U	20	30.5 J	0.46 J	0.112 U	0.175 J	19.5 J-	0.53 J	7.9	3.2 U	222 U	2.6 J	35.9 U	210	1,000 J
OCDD	7	1,000	5190	57.3	36.3	326	8750	42.9	101	206	5,000 J	358	4000	7,000 J	1,000
OCDF	1 U	110	344 UK	4.25	0.663	13.8	517	5.24	19.4	34.1	1,000	41.7	249	2,000	6,000 J
Dioxin/Furan TEQ[a][2]	1 T	26 T	1140 JT	14.5 JT	0.256 T	1.86 JT	142 JT	2.34 JT	2.89 JT	7.9 JT	9,160 JT	15.1 JT	286 JT	5,150 JT	45,600 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	LADD-103	LADD-104	LADD-104	LADD-104	NB-15	NB-15	NB-19	NB-19	PM-02-122	PM-02-122	PM-02-122	PM-03-098	PM-03-107	TP-10E	TP-9B-East
Sample Name:	009-01	010-01	011-01	012-01	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	10/11/2004	10/11/2004	10/11/2004	10/11/2004	1/15/2004	1/15/2004	1/20/2004	1/20/2004	6/2/2008	6/2/2008	6/2/2008	5/29/2008	5/29/2008	10/6/2007	9/17/2007
Collection Depth (ft bgs):	5-10	0-1	1-5	5-10	14	17	26	38	104-109	117-118	90-100	90-100	106-107	14	8
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	15	210	63	16	260 U	260 U	430 J	250 U	0.245 U	0.248 U	2.83 J	5.62	0.796	77	8.8 J
1,2,3,4,6,7,8-HpCDF	240	35	26	5.6	1,000 U	1,000 U	3,000 J	830 J	0.516 U	0.522 U	0.541 U	0.511 U	0.531 U	340	4.7 J
1,2,3,4,7,8,9-HpCDF	5.9	2.6 U	1.2 U	0.29 U	850 U	850 U	870 U	800 U	0.245 U	0.247 U	0.256 U	0.242 U	0.252 U	5.5 J	0.55 UJ
1,2,3,4,7,8-HxCDD	3.2 U	2 U	1.4 U	0.2 U	850 U	850 U	870 U	800 U	0.251 U	0.254 U	0.264 U	0.249 U	0.259 U	2.8 U	0.13 UJ
1,2,3,4,7,8-HxCDF	41	7.1	2.6 U	0.81 U	980 U	980 U	330 J	920 U	0.325 U	0.328 U	0.34 U	0.322 U	0.334 U	29	0.73 UJ
1,2,3,6,7,8-HxCDD	10	8.3	3.6	0.65 U	980 U	980 U	1,000 U	920 U	0.146 U	0.148 U	0.153 U	0.312 J	0.15 U	18	0.56 UJ
1,2,3,6,7,8-HxCDF	29	4.1	1.4 U	0.59 U	1,000 U	1,000 U	300 J	990 U	0.131 U	0.132 U	0.137 U	0.129 U	0.135 U	26	0.39 UJ
1,2,3,7,8,9-HxCDD	3.5	4.1	2.7 U	0.69 U	920 U	910 U	940 U	860 U	0.231 U	0.233 U	0.242 U	0.628 J	0.237 U	4.3 J	0.59 UJ
1,2,3,7,8,9-HxCDF	0.99 U	0.5 U	0.2 U	0.18 U	720 U	720 U	740 U	680 U	0.269 U	0.272 U	0.282 U	0.267 U	0.277 U	0.92 U	0.13 UJ
1,2,3,7,8-PeCDD	29	5.9	1.2 U	0.22 U	790 U	780 U	800 U	740 U	0.248 U	0.25 U	0.26 U	0.245 U	0.255 U	26	0.28 UJ
1,2,3,7,8-PeCDF	240	5.8	1.3 U	0.35 U	790 U	780 U	590 J	740 U	0.316 U	0.32 U	0.331 U	0.313 U	0.325 U	84 J	0.91 UJ
2,3,4,6,7,8-HxCDF	25	3.4	0.83 U	0.33 U	590 U	590 U	410 J	550 U	0.343 U	0.347 U	0.36 U	0.34 U	0.353 U	33	0.33 UJ
2,3,4,7,8-PeCDF	68 U	8.3	1.3 U	0.65 U	790 U	780 U	820 J	740 U	0.201 U	0.203 U	0.211 U	0.199 U	0.207 U	110 J	0.49 UJ
2,3,7,8-TCDD	8,000	70	6.5 U	6.8 U	200 U	200 U	63,000 J	12,000	0.0564 U	0.057 U	0.0591 U	0.0559 U	0.0581 U	220	0.84 J
2,3,7,8-TCDF	130	15	2	0.76 U	130 U	810 NJ	271,000 NJ	84,000 NJ	0.131 U	0.133 U	0.137 U	0.13 U	0.135 U	99	1.5 U
OCDD	62	2,000	440	120	590 U	590 U	4,000 J	1,000 J	5.09 U	2.08 U	19.1	35	4.34 U	420	90 UJ
OCDF	460	80	58	14	1,000 U	1,000 U	10,000	3,000 J	0.609 U	0.616 U	0.638 U	0.603 U	0.627 U	430	42 J
Dioxin/Furan TEQ[a][2]	8,080 T	86 T	8.1 T	7.06 T	790 UT	861 JT	91,300 JT	21,100 JT	0.248 UT	0.25 UT	0.294 JT	0.406 JT	0.263 T	307 JT	1.27 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF								GOU						
Location:	TP-9B-NW	TP-9B-SW	TP-9C	TP-9D	TP-FF	TP-HH(2N)	TP-Q	WR-03	RP-11-216	WSB-16	WSB-16	WSB-16	WSB-17	WSB-17	WSB-17
Sample Name:	--	--	--	--	--	--	--	--	128-01	WSB16-S-10.5	WSB16-S-29.0	WSB16-S-7.5	WSB17-S-11.5	WSB17-S-11.5-DU	WSB17-S-25.5
Collection Date:	9/14/2007	9/21/2007	9/27/2007	9/27/2007	6/28/2005	7/5/2005	7/6/2005	2/1/1995	11/17/2005	12/4/2018	12/4/2018	12/4/2018	12/4/2018	12/4/2018	12/4/2018
Collection Depth (ft bgs):	7	6	7	7	5-6	7-8	8-9	0	7.5-8	10.5	29	7.5	11.5	11.5	25.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	4.3 J	35	1.5 U	8.5 U	300 U	300 U	8,000	380	1000 J	180	1.75 J	1.34 J	16.1	14.4	1.76 J
1,2,3,4,6,7,8-HpCDF	2.3 UJ	16	2.5 U	4.9 U	190 U	190 U	4,000	76 U	35 J	130	0.268 UJ	0.28 UJ	0.99 J	1.88 J	0.401 UJ
1,2,3,4,7,8,9-HpCDF	0.21 UJ	2.9 U	1.8 U	1.1 U	420 U	420 U	480 U	6	2.4 UJ	6	0.0926 U	0.0855 U	0.107 U	0.18 J	0.0946 U
1,2,3,4,7,8-HxCDD	0.11 UJ	2.2 U	1.9 U	1.5 U	730 U	730 U	840 U	4 U	2.3 UJ	1.57 J	0.0834 U	0.077 U	0.11 U	0.128 UJK	0.118 U
1,2,3,4,7,8-HxCDF	0.6 UJ	2.8 U	1.4 U	3.7 U	600 U	600 U	1,000	11	2.8 UJ	14.4	0.15 UJ	0.193 UJ	0.255 UJ	0.265 UJ	0.158 UJ
1,2,3,6,7,8-HxCDD	0.41 UJ	3.4 J	1.3 U	5.6 U	990 U	990 U	1,000 U	15	17 J	6.78	0.113 J	0.0772 U	0.249 UJK	0.32 J	0.109 U
1,2,3,6,7,8-HxCDF	0.3 UJ	3.6 J	1 U	3.8 U	750 U	750 U	860 U	9.6 U	1 UJ	16.5	0.0681 UJ	0.0967 UJ	0.111 U	0.153 UJ	0.0857 UJ
1,2,3,7,8,9-HxCDD	0.41 UJ	2 U	1.2 U	1.9 U	570 U	570 U	660 U	9.4	11 UJ	3.3 J	0.198 UJ	0.0947 UJ	0.153 UJ	0.296 UJ	0.117 U
1,2,3,7,8,9-HxCDF	0.15 UJ	1.6 U	1.3 U	1.1 U	880 U	880 U	1,000 U	0.41 U	1.2 UJ	2.99 J	0.0737 U	0.077 UJ	0.131 UJ	0.119 UJ	0.0954 UJ
1,2,3,7,8-PeCDD	0.5 UJ	2.1 U	1 U	10 U	350 U	350 U	1,000	1.9 U	1.7 U	1.11 J	0.0889 U	0.0663 U	0.106 U	0.112 U	0.0818 U
1,2,3,7,8-PeCDF	0.17 UJ	1.3 U	0.75 U	7.7 U	380 U	380 U	440 U	5	0.98 U	9.87	0.14 UJ	0.138 UJ	0.186 UJ	0.243 UJ	0.16 UJ
2,3,4,6,7,8-HxCDF	0.24 UJ	2.6 U	1.3 U	5.5 U	330 U	330 U	380 U	3.3 U	1.1 UJ	6.47	0.0597 U	0.0651 UJK	0.111 U	0.118 U	0.0896 J
2,3,4,7,8-PeCDF	0.67 UJ	3 U	0.75 U	0.95 U	470 U	470 U	880	3.8 U	0.96 U	8.3	0.0817 UJ	0.0868 UJ	0.137 UJ	0.139 UJ	0.0974 UJ
2,3,7,8-TCDD	6 J	14 U	0.61 U	8.6 U	120 U	120 U	4,000	3.4	2.7 U	0.773 UJK	0.0776 U	0.0797 U	0.1 U	0.14 U	0.141 U
2,3,7,8-TCDF	1.3 J	3.2	8.6 U	69 U	160 U	160 U	77,000	8.5	5 U	2.66	0.152 UJ	0.136 UJ	0.18 UJ	0.222 UJ	0.212 UJ
OCDD	42 UJ	260	55 U	73 U	600 U	600 U	58,000	4000	7000 J	2790	12.8	11.4	95	105	14.5
OCDF	5.3 J	31	2.6 U	8.2 U	600 U	600 U	6,000	330	290 J	125	0.233 J	0.223 J	3.01 J	4.44 J	0.615 J
Dioxin/Furan TEQ[a][2]	6.67 JT	15.6 JT	1 UT	10 UT	350 UT	350 UT	13,300 T	15 T	16.9 JT	14.2 JT	0.122 JT	0.0966 JT	0.306 JT	0.369 JT	0.172 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	WSB-17	WSB-18	WSB-18	WSB-18	WSB-19	WSB-19	WSB-19	WSB-20	WSB-20	WSB-20	WSB-21	WSB-21	WSB-22	WSB-22	WSB-22
Sample Name:	WSB17-S-33.5	WSB18-S-13.0	WSB18-S-23.5	WSB18-S-25.0	WSB19-S-18.5	WSB19-S-23.0	WSB19-S-7.5	WSB20-SM-16.5	WSB20-S-24.0	WSB20-S-6.0	WSB21-S-7.0	WSB21-S-9.5	WSB22-S-11.0	WSB22-S-17.5	WSB22-S-33.5
Collection Date:	12/4/2018	12/5/2018	12/5/2018	12/5/2018	12/5/2018	12/5/2018	12/5/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018
Collection Depth (ft bgs):	33.5	13	23.5	25	18.5	23	7.5	16.5	24	6	7	9.5	11	17.5	33.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	1.26 J	292	13.9 J	115	52.2 J	0.272 UJ	6.76	479	1.24 UJK	2.58 J	241	1370	257	60.2	0.693 UJK
1,2,3,4,6,7,8-HpCDF	0.332 UJ	64.4	2.01 J	10.8	18.9 J	0.12 U	1.24 J	204	0.348 UJ	0.394 UJ	47.8	442	50.1	15.4	0.178 UJ
1,2,3,4,7,8,9-HpCDF	0.0806 U	4.33 J	1.32 U	0.976 J	2.09 J	0.149 U	0.144 U	7.56 U	0.231 U	0.3 U	3.32 J	67.8 J	3.61 J	1.74 J	0.202 U
1,2,3,4,7,8-HxCDD	0.0958 U	3.08 J	1.13 U	0.171 UJK	1.49 UJ	0.15 U	0.132 U	8.33 U	0.404 U	0.302 U	1.69 J	14.5 UJK	2.06 UJK	0.414 UJK	0.199 U
1,2,3,4,7,8-HxCDF	0.16 UJ	4.8 J	0.957 U	2 J	4.03 J	0.121 U	0.1 UJ	6.74 J	0.255 UJK	0.21 U	3.96 J	88.7 J	3.79 J	6.44	0.121 U
1,2,3,6,7,8-HxCDD	0.0958 U	10.4	1.16 U	2.4 J	2.04 J	0.156 U	0.319 J	14.1 J	0.404 U	0.298 U	7.92	65.1 J	10.8	1.87 J	0.202 U
1,2,3,6,7,8-HxCDF	0.0731 UJ	5.91	1.18 U	0.57 UJK	2.2 UJK	0.128 U	0.103 U	5.27 U	0.208 J	0.236 U	4.76 J	62.4 UJK	2.83 J	2.11 J	0.128 U
1,2,3,7,8,9-HxCDD	0.0986 U	4.56 J	1.18 U	0.426 UJK	1.45 UJ	0.157 U	0.193 UJ	8.42 U	0.419 U	0.312 U	3.95 J	37.3 J	5.52	0.817 J	0.208 U
1,2,3,7,8,9-HxCDF	0.0636 UJ	1.34 J	1.62 U	0.773 J	1.84 UJ	0.133 U	0.124 U	7.31 U	0.283 U	0.364 U	1.33 UJK	38.4 UJK	1.34 J	0.94 J	0.185 U
1,2,3,7,8-PeCDD	0.0753 U	1.35 J	0.856 U	0.225 UJ	1.4 UJ	0.282 U	0.213 U	3.94 U	0.247 U	0.238 U	1.14 UJK	15.2 U	1.45 J	0.521 UJK	0.242 U
1,2,3,7,8-PeCDF	0.178 UJ	1.99 J	0.725 U	0.735 J	2.56 J	0.235 U	0.133 U	4.49 UJK	0.263 UJK	0.216 U	1.83 UJK	24 UJK	1.35 J	3.59 J	0.18 U
2,3,4,6,7,8-HxCDF	0.0838 U	4.37 J	1.25 U	0.842 J	2.59 J	0.136 U	0.106 U	8.74 J	0.222 U	0.246 U	3.07 J	66.5 J	3.24 J	1.27 J	0.126 U
2,3,4,7,8-PeCDF	0.107 UJ	3.25 J	0.71 U	1.25 J	3.3 UJK	0.16 U	0.133 U	3.27 UJK	0.196 UJK	0.171 U	2.48 J	45.1 J	2.93 J	1.89 J	0.154 U
2,3,7,8-TCDD	0.109 U	1.02	1.19 U	0.29 U	2.61 UJ	0.126 U	0.0823 U	5.84 U	0.376 U	0.338 U	0.863 J	8.88 U	1.07 UK	0.326 U	0.295 U
2,3,7,8-TCDF	0.231 UJ	1.94	1.49 U	0.749 UJK	3.91 UJ	0.126 U	0.126 UJ	6.99 U	0.334 U	0.378 U	0.72 U	12 U	5.06	3.25	0.313 U
OCDD	11.1	4170 J	157	2010	336 J	2.05 J	43	3960	10.1	18.4	4220 J	5690	3630	671	4.27 UJ
OCDF	0.605 J	141	2.69 UJK	17.7	22.5 J	0.18 U	3.51 J	126 J	0.485 U	0.486 U	118	410 J	119	31	0.355 U
Dioxin/Furan TEQ[(a)(2)]	0.125 JT	11.9 JT	1.4 JT	3.16 JT	4.39 JT	0.283 JT	0.339 JT	16.9 JT	0.4 JT	0.369 JT	9.5 JT	75.1 JT	10.9 JT	3.85 JT	0.295 UJT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Gould												Metro		
Location:	AL1-45	AREA-1WC	B-01-NLG	B-02-NLG	B-05-NLG	B-05-NLG	B-05-NLG	B-05-NLG	B-07-NLG	BST1W-88	C-5	CELL55-A1	HAP-03	HAP-03	HAP-06
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	3/6/1995	4/20/1995	8/16/1992	8/15/1992	8/15/1992	8/15/1992	8/15/1992	8/15/1992	8/16/1992	12/21/1994	8/16/1992	4/15/1993	8/7/2017	8/7/2017	8/8/2017
Collection Depth (ft bgs):	20-22	0-0.5	25.5	10.5	12.5	20.5	32	32	13	21-22	0.5	0	0-1	2.5-3.5	0-1
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	3 U	490	12 U	8.2 U	8.5 U	19 U	21 U	60	12 U	1 U	11 U	100	9.5	114	136
1,2,3,4,6,7,8-HpCDF	1 U	170	22 U	8.7 U	7.6 U	97	180	1,000	51	ND	9.4 U	26	1.21	41.2	17.9
1,2,3,4,7,8,9-HpCDF	1 U	12	--	--	--	--	--	--	--	ND	--	2.9	0.108	3.38 U	1.09
1,2,3,4,7,8-HxCDD	1 U	21	15 U	14 U	14 U	19 U	19 U	350 U	10 U	ND	11 U	1.7 J	0.117 U	3.01	0.941
1,2,3,4,7,8-HxCDF	ND	33	7.3 U	7.9 U	6 U	13 U	35 U	330 U	5.9 U	ND	6.9 U	5.9	0.148	23.1 UK	1.81
1,2,3,6,7,8-HxCDD	1 U	53	15 U	14 U	14 U	19 U	19 U	320 U	10 U	ND	11 U	7.5	0.376	11	4.01
1,2,3,6,7,8-HxCDF	ND	16	7.3 U	7.9 U	6 U	13 U	35 U	290 U	5.9 U	ND	6.9 U	2.4 J	0.092 U	8.14	0.771
1,2,3,7,8,9-HxCDD	1 U	42	15 U	14 U	14 U	19 U	19 U	16 U	10 U	ND	11 U	3.6	0.276	8.76	2.78
1,2,3,7,8,9-HxCDF	ND	7.4	7.3 U	7.9 U	6 U	13 U	35 U	420 U	5.9 U	ND	6.9 U	0.51 U	0.0912 U	0.485 U	0.121
1,2,3,7,8-PeCDD	ND	65	11 U	13 U	11 U	14 U	19 U	130 U	8.4 U	ND	10 U	1.9 J	0.0816 U	6.75	0.514
1,2,3,7,8-PeCDF	1 U	12 U	19 U	3.1 U	2.7 U	85 U	50 U	340 U	47 U	ND	2.9 U	2 J	0.111 U	9.26	0.366
2,3,4,6,7,8-HxCDF	ND	22	7.3 U	7.9 U	6 U	13 U	35 U	380 U	5.9 U	ND	6.9 U	1.7 J	0.0858 U	6.99	0.61
2,3,4,7,8-PeCDF	ND	25	3.5 U	3.1 U	2.7 U	17 U	30 U	47 U	5.8 U	ND	2.9 U	2.4 J	0.108 U	12.6	0.329
2,3,7,8-TCDD	ND	2,000 J	350	6 U	3.3 U	2,000	3,000	16,000	520	ND	4.3 U	6.2	0.951	1940	1.12
2,3,7,8-TCDF	ND	56	750	5.6 U	2.6 U	6,000	12,000	22,000	2,000	ND	37 U	3.1	0.121 U	25.7 J	0.447 J
OCDD	33	8,000 J	82 U	32 U	44 U	95 U	110	460	89	6 U	62 U	670	131	1060	2100
OCDF	1 U	430	110	29 U	30 U	380	870	5,000	250	ND	27 U	69	10 U	37.6	49.9
Dioxin/Furan TEQ[a][2]	ND	2110 JT	436 T	13 UT	11 UT	2,620 T	4,220 T	18,300 T	729 T	ND	10 UT	13 JT	1.26 T	1960 JT	5.09 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Metro					Nikko								RPAC	
Location:	HAP-06	IAP-01	IAP-01	IAP-02	IAP-02	FDLSB-4	FDLSB-4	FDLSB-4	FDLSB-4	HAP-01	HAP-01	HAP-02	HAP-02	AREA-2EM	AREA-3EM
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	8/8/2017	8/8/2017	8/8/2017	8/8/2017	8/8/2017	8/29/2017	8/28/2017	8/28/2017	8/28/2017	8/7/2017	8/7/2017	8/7/2017	8/7/2017	4/12/1991	4/11/1991
Collection Depth (ft bgs):	2.5-3.5	0-1	2.5-3.5	0-1	2.5-3.5	1-3	13-15	5-7	9-11	2.5-3.5	2.5-3.5	0-1	2.5-3.5	0	0
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	4.78	39.7	30.9	38.1	20.7	20.3	57.4	4.97 U	45.1 J+	14	12.8	2.62	274	400	2,000
1,2,3,4,6,7,8-HpCDF	1.39	4.92	4.39	4.04	5.55	4.86	39.9	0.61	78.5	5.57	3.84	0.266	83.2	180	250
1,2,3,4,7,8,9-HpCDF	0.151	0.355	0.295	0.318	0.576	4.99 U	4.95 U	4.97 U	4.97 U	0.366	0.387	0.0959 U	6.04	6.6 U	17 U
1,2,3,4,7,8-HxCDD	0.128 U	0.272 U	0.209	0.181 U	0.0938 U	4.99 U	4.95 U	0.104 U	4.97 U	0.407	0.266 U	0.106 U	3.15	21 U	34 U
1,2,3,4,7,8-HxCDF	0.43	0.498	0.522	0.57	0.635	4.99 U	8.96	4.97 U	9.83 UK	1.89	2.42	0.103 U	15.7	37	7.1
1,2,3,6,7,8-HxCDD	0.254	1.19	0.952	1.12	0.696	4.99 U	4.95 U	4.97 U	4.97 U	1.22	0.86	0.125 U	15.2	40	84
1,2,3,6,7,8-HxCDF	0.116	0.213	0.204 U	0.221 U	0.161	4.99 U	4.95 U	4.97 U	8.6	0.819	0.864	0.104 U	5.8	18	27
1,2,3,7,8,9-HxCDD	0.183 U	1.08	0.785	0.745	0.34	0.695	2.27	0.325	2.27 UK	1.17	1.03	0.265	7.88	11	47
1,2,3,7,8,9-HxCDF	0.0929 U	0.0984 U	0.0779 U	0.105 U	0.0776 U	0.11 U	0.156 U	0.103 U	4.97 U	0.114	0.0981 U	0.103 U	0.532	3.9	6.3
1,2,3,7,8-PeCDD	0.11 U	0.167	0.172 U	0.109	0.0828 U	0.106 U	4.95 U	0.105 U	4.97 U	0.544	0.436	0.0738 U	2.1	30	26 U
1,2,3,7,8-PeCDF	0.109 U	0.133 U	0.105 U	0.0839 U	0.157	0.18	6.37	0.141	22.5	0.933	1.59	0.0914 U	4.47	19	17
2,3,4,6,7,8-HxCDF	0.0875 U	0.174	0.182	0.137 U	0.115	4.99 U	4.95 U	4.97 U	7.45	0.696	0.539	0.0971 U	4.16	12	12
2,3,4,7,8-PeCDF	0.106 U	0.13 U	0.167	0.111 U	0.125	0.179	5.72	0.111 U	15.6	1.07	1.02	0.0894 U	4.71	34	31
2,3,7,8-TCDD	0.21 J	0.19 J	0.19 J	0.0839 U	0.162 U	0.414 J	119	0.52	869	1.84	1.15	0.0863 U	7.11	280	180
2,3,7,8-TCDF	0.112 UJ	0.132 U	0.19 U	0.175 U	0.298 U	0.23 J	30.7 J	0.237 J	123 J	2.67 J	2.19 J	0.174 U	9.62 J	67	29
OCDD	43.7	596	500	552	214	154	586	35.7	387	123	95.9	20.6	2090	2,000	11,000
OCDF	10 U	16.7	13.8	13.5	32.5	14.1	75.9	9.95 U	139 J	10 U	9.99 U	9.99 U	80.5	690	1000
Dioxin/Furan TEQ[a][2]	0.476 JT	1.35 JT	1.19 JT	1.03 T	0.741 T	1.37 JT	131 JT	1.09 JT	895 JT	3.87 JT	2.96 JT	0.148 T	21.2 JT	348 T	263 T

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	BS-1(64)	BS-1(64)	BST2W-61	BST3	BTB-2	BTB-2	BTB-2	BTB-2	CELL143	CELL3	CELL48	CELL55-A4	CELL602	DB-01	DB-01
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	6/26/2006	6/26/2006	11/22/1994	11/18/1994	11/10/1992	11/11/1992	11/11/1992	11/11/1992	4/15/1993	4/14/1993	4/15/1993	4/15/1993	4/14/1993	5/3/1991	5/3/1991
Collection Depth (ft bgs):	35-40	59-64.5	16-18	21.5-22.5	0-0.5	0.5-10	29.5	34	0.1-0.4	0	0.1-0.4	0	0	0-5	13.5-18.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	2.62 J	1.51 J	3 U	1.3 U	680	9	3.6 U	1.7 U	96	200	430	440	270	380	100 U
1,2,3,4,6,7,8-HpCDF	0.492 U	0.515 U	1 U	27	120	2.4	3.5	0.8	27	96	550	100	57	800	1,000
1,2,3,4,7,8,9-HpCDF	0.281 U	0.295 U	ND	52	6.3	0.24 U	0.37	0.18 U	2.1 J	7	12	4.2	7.8 U	100 U	100 U
1,2,3,4,7,8-HxCDD	0.265 U	0.277 U	ND	0.37 U	0.52 U	0.42 U	0.45 U	0.3 U	1.4 J	4.8	14	6.3	3.3 U	100 U	100 U
1,2,3,4,7,8-HxCDF	0.343 U	0.359 U	ND	2.4 U	9.6 J	0.57 J	0.72 J	0.27	3.9 J	21	39	10	9.9	100 U	130
1,2,3,6,7,8-HxCDD	0.3 U	0.314 U	1 U	0.93 U	37 J	0.67 J	0.47 U	0.3 U	4.8	15	100	29	9.4 U	100 U	100 U
1,2,3,6,7,8-HxCDF	0.256 U	0.268 U	ND	0.85 U	9.5 J	0.31 J	0.53 J	0.11 U	1.3 J	7.1 J	37	6.5	4.2	100 U	100 U
1,2,3,7,8,9-HxCDD	0.34 U	0.356 U	ND	0.68 U	9.4 J	0.36 J	0.21 U	0.3 U	2.5	6.4	42	15	3.6 U	100 U	100 U
1,2,3,7,8,9-HxCDF	0.318 U	0.333 U	ND	0.81 U	--	--	--	--	0.71 U	3.5	3.5	0.86	1.6 U	100 U	100 U
1,2,3,7,8-PeCDD	0.319 U	0.334 U	1 U	1.1 U	1.6 U	0.41 U	0.28 U	0.25 U	0.99 J	14	97	11	1.5 U	100 U	250
1,2,3,7,8-PeCDF	0.263 U	0.275 U	2 U	2.4 U	1.6	0.27 U	0.86 J	0.44 U	0.8 J	13 J	51	5.5	2.4	100 U	100 U
2,3,4,6,7,8-HxCDF	0.284 U	0.298 U	ND	0.71 U	8.3 J	0.66 J	0.59 J	0.11 U	1.2 J	8.5 J	42	3.8	3.1 U	100 U	140
2,3,4,7,8-PeCDF	0.323 U	0.338 U	2 U	2.8 U	13 J	0.31 U	0.99 J	0.42 U	1.3 J	19 J	98	4.5	5.7	100 U	100 U
2,3,7,8-TCDD	0.0593 U	0.0621 U	11	240	18	0.59	13	0.42	2.1	240	81	75	18	590	8,000
2,3,7,8-TCDF	0.12 J	0.104 U	1.1	3.3	5.1	0.63	1.8	1.6	1.2	56	200	16	13	100 U	100 U
OCDD	21.8 J	13.2 J	19	8.2 U	8,000	100	24 U	15 U	890	1,000	2,000	4,000	3,000	3,000	3,000
OCDF	1.34 U	1.4 U	2 U	50	710	4.2	5.3	1.7	86	280	740	590	170	3,000	3,000
Dioxin/Furan TEQ[a][2]	0.364 JT	0.353 JT	ND	242 T	42.1 JT	1.47 JT	14 JT	0.866 T	6.75 JT	276 JT	267 T	103 T	28.2 T	704 T	8,320 T

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	DB-01	DB-01	HA-01	HA-01	HA-02	HA-02	HA-03	HA-03	HA-04	HA-04	HA-05	HA-05	HA-05	HA-06	HA-06
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	5/3/1991	5/3/1991	12/27/2000	12/27/2000	12/15/2000	12/15/2000	12/5/2000	12/5/2000	12/15/2000	12/15/2000	12/6/2000	12/6/2000	12/6/2000	12/5/2000	12/5/2000
Collection Depth (ft bgs):	5-8.5	8.5-13.5	4-6	8-10	16-18	3-5	10-12	6-8	14-16	6-8	0-0.5	3-5	7-9	0-0.3	1-3
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	210	230	580	88.1	30.8	7.7	2.8 U	13.9	104	6.2	229	55.1	3.2 J	167	4 J
1,2,3,4,6,7,8-HpCDF	2,000	1,000	167	207	52.2	20.8	0.6 U	10.4	343	10.1	177	57.2	0.94 U	94.3	2 U
1,2,3,4,7,8,9-HpCDF	100 U	100	10.1	7.9	2 U	0.86 J	3.84 U	0.67	26.2	0.28 U	7.6	0.4 UJ	0.5 U	5.5	0.2 U
1,2,3,4,7,8-HxCDD	100 U	100 U	27	4.2	1.8 J	0.56 U	0.96 U	0.21 U	5.3	0.25 J	5.1	1.1 J	0.5 U	0.86 J	1.02 U
1,2,3,4,7,8-HxCDF	170	110	41.4	33.6	8.5	3.9 J	0.43 U	5.7	65.4	0.97 J	17.1 U	0.3 U	0.56 U	49.8	0.79 U
1,2,3,6,7,8-HxCDD	100 U	100 U	67.8	18.4	9.4	1.3 J	0.07 U	1.4	34.5	1.8 J	20.7	5.8	0.94 U	6.7	0.12 U
1,2,3,6,7,8-HxCDF	120	100 U	20	33.1	4.3 J	3 J	0.15 U	2	25.8	0.81 J	23.3	5.6	0.39 J	6.8	0.28 J
1,2,3,7,8,9-HxCDD	100 U	100 U	47.3	9.1	6	0.99 J	0.21 U	0.98 U	12.7	0.94 J	13.1	3.7 J	2.34 U	2.3 J	0.19 U
1,2,3,7,8,9-HxCDF	100 U	120	1.68 U	1.68 U	ND	4.29 U	0.1 U	4.37 U	2.8 J	0.09 U	4.67 U	0.4 U	0.4 U	4.66 U	4.4 U
1,2,3,7,8-PeCDD	100 U	200	41.5	26.4	7.4	3.1 U	1.15 U	0.44 U	37.7	2.4 J	8.5	5.2	1.12 U	1.9 J	0.07 U
1,2,3,7,8-PeCDF	100 U	100 U	39.2	73.2	8.6	8.9	0.13 U	1.32 U	39.7	1.2 U	1.41 U	1.43 U	1.22 U	1.41 U	0.18 U
2,3,4,6,7,8-HxCDF	190	280	24	49	6.3	4.4 J	0.06 U	1.9	38.2	1.6 J	0.4 UJ	9.2	0.3 U	7	0.14 U
2,3,4,7,8-PeCDF	100 U	100 U	37.1	89.2	10	13.6	1.44 U	2.3	50.7	2.1 J	12.2	6.8	1.4 U	6.6	0.16 U
2,3,7,8-TCDD	620	1,000	820 J	3,000 J	653 J	3.44	0.05 U	26.7	4,000 U	29.6	530 U	11.1	0.3 U	43.6	0.41 J
2,3,7,8-TCDF	100 U	100 U	74.7	113	28.3	169	0.3 N	3.5	242	6.6	13.5	3 U	0.52 U	4.7	0.49 U
OCDD	2,000	4,000	4,000	382	124	40.2 U	33.1	79.6	1,000	65.7 U	4,000 U	269	26.8	2,000	51.2
OCDF	8,000	4,000	333	462	123	34.1	3.65 U	4.6	2,000	23.4	742	23.9	3.56 U	94.2	0.81 U
Dioxin/Furan TEQ[a][2]	793 T	1,300 T	913 JT	3080 JT	#NUM!	29.4 JT	1.19 T	29.6 T	4,100 JT	34.1 JT	554 JT	22.4 JT	1.2 JT	59.1 JT	0.933 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	HA-06	HA-06	HA-07	HA-07	HA-08	HA-08	HA-09	HA-09	HA-10	HA-10	HA-11	HA-11	HA-11	HA-12	HA-12
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/5/2000	12/5/2000	12/18/2000	12/18/2000	12/13/2000	12/13/2000	12/11/2000	12/11/2000	12/11/2000	12/11/2000	12/6/2000	12/6/2000	12/6/2000	12/6/2000	12/6/2000
Collection Depth (ft bgs):	3-5	5-7	10-12	5-7	17-19	5-7	2-3	9-10	2-3	9-10	0-0.5	1-3	5-7	0.5-1	3-5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	2	8.5	8.5	41.1	239 J	87.7	19.5	6 U	3.4 U	5.5 U	2.7 J	32.1	3.9 J	41.8	21.7
1,2,3,4,6,7,8-HpCDF	0.55 U	3.9 J	46.1	33.9	69.6	44,000	18.4 J	3.2 U	2 U	2.8 U	2.4 J	15.7	1.9 J	5.7 U	45.8
1,2,3,4,7,8,9-HpCDF	4.02 U	0.49 J	2 J	2.5 J	4.3 J	35.5	3 J	0.43 U	4 U	4.01 U	0.12 U	1.1 J	3.72 U	0.19 U	5.1 J
1,2,3,4,7,8-HxCDD	0.08 U	1.01 U	0.48 J	1.8 U	4	4.6 J	0.97 J	0.23 J	1 U	0.15 U	1.37 U	0.8 J	0.5 U	0.2 U	0.97 U
1,2,3,4,7,8-HxCDF	0.37 U	2 J	7.1	6.8	12.4 J	179	8.7 U	2 U	1.1 U	1.2 U	0.59 U	3.9 J	0.89 J	1.2 J	2.1 J
1,2,3,6,7,8-HxCDD	1 U	0.44 U	2.1 J	4 J	14.1	73.6	2.5 J	0.46 J	0.36 U	0.63 J	0.09 U	2.1 J	0.93 U	1.1 J	0.97 U
1,2,3,6,7,8-HxCDF	0.15	0.74 U	4.4	2.8 U	5 J	61.3	3.4 U	0.86 U	0.51 U	0.54 U	0.21 U	1.6 J	0.42 J	0.55 J	1.3 U
1,2,3,7,8,9-HxCDD	0.18 U	0.5 U	1 J	2.4 J	9.2	45	1.8 J	0.6 U	0.5 J	0.74 J	0.1 J	1.9 J	2.32 U	0.4 J	2.43 U
1,2,3,7,8,9-HxCDF	0.1 U	4.33 U	0.35 J	4.29 U	0.2 U	3.9 J	4.3 U	4.31 U	4.3 U	0.2 U	0.08 U	4.08 U	3.99 U	4.61 U	4.18 U
1,2,3,7,8-PeCDD	1.21 U	1.21 U	2.2 J	4.9 J	6.1	60.5	3.4 J	1.2 U	1.2 U	1.2 U	1.37 U	1.1 U	1.11 U	0.12 U	1.17 U
1,2,3,7,8-PeCDF	0.14 U	0.6 U	7.3	1.3 U	35 U	97.3 J	1.3 U	0.29 U	0.65 U	0.57 U	0.24 J	1.23 U	1.21 U	1.39 U	1.27 U
2,3,4,6,7,8-HxCDF	0.08 U	0.39 U	5.8	3.1 J	6.3 J	65.3	3.7 U	0.58 U	0.44 U	0.51 U	0.12 J	1.4 J	0.5 UJ	0.41 J	1.5 J
2,3,4,7,8-PeCDF	0.06 U	0.57 J	10.5	5.4	8.7 J	85.1	2.7	0.62 U	0.27 U	0.35 J	0.2 J	2.4 J	0.29 U	0.42 U	1.46 U
2,3,7,8-TCDD	0.78 U	1.2	601 J	120	101	55,000	13.1	0.88 J	4.7	12.8	0.76 U	63.4	1.6	1.4	0.3 U
2,3,7,8-TCDF	0.25 N	0.48 U	23.1	11.8	14.2 J	70.1 J	3.6 U	0.72 U	0.48 U	0.48 U	0.55 U	8.4	0.45 U	0.51 U	0.47 U
OCDD	14.1	79.2	85.2	331	8,000	5,000	118	38.3 U	21.4 U	35.4 U	38.8	330	30.2	475	626
OCDF	3.82 U	4.6	116	156	130	90,000	38.6	3.4 U	0.95 U	2.1 U	2.7 J	24	1.2 J	6.7 J	383
Dioxin/Furan TEQ[a][2]	1.27 T	2.94 JT	612 JT	131 JT	123 JT	55,600 JT	19.2 JT	2.15 JT	5.95 JT	14.2 JT	1.52 JT	67.8 JT	2.91 JT	2.79 JT	2.56 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	HA-12	HA-13	HA-13	HA-14	HA-14	HA-15	HA-15	HA-16	HA-16	HA-17	HA-17	HA-18	HA-18	HA-19	HA-19
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/6/2000	12/15/2000	12/15/2000	12/15/2000	12/15/2000	12/11/2000	12/11/2000	12/15/2000	12/15/2000	12/15/2000	12/15/2000	12/11/2000	12/11/2000	12/6/2000	12/6/2000
Collection Depth (ft bgs):	5-7	14-16	4-6	2.5-4	8.5-10	2-3	9-10	2.5-4	8.5-10	2-3	9-10	3-4	9-10	0-0.5	1-3
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	1.5 J	96.6	7.9	22.7	14.9	4.8 U	6.2 U	24.6	5.4	60	23.4	53.2	29.2 J	5	3.2 J
1,2,3,4,6,7,8-HpCDF	1.7 J	11.7	0.6 J	24.9	81	3.7 U	3.4 U	9.7	1.2 J	45.1	8.4	51.2 J	85.6 U	1.9 J	1.9 J
1,2,3,4,7,8,9-HpCDF	3.62 U	0.82 J	4.03 U	1.9 J	3.5 U	0.6 U	0.3 U	1 J	4.02 U	1.4 J	0.75 J	1.6 U	4.01 U	0.2 U	0.4 U
1,2,3,4,7,8-HxCDD	0.91 U	10.6	0.3 U	1.4 U	1.2 J	1 U	1 U	2.1 J	1.21 U	1.3 J	0.63 J	1.5 J	1.4 J	0.3 U	0.94 U
1,2,3,4,7,8-HxCDF	0.41 U	1.5 J	0.2 U	3.7 J	13.2	1.6 U	1 J	2.9 J	0.5 U	4.1 J	1.7 J	6.7	43.5 J	0.46 J	1.1 J
1,2,3,6,7,8-HxCDD	0.91 U	6	0.51 J	4.2 J	2.7 J	1 U	0.44 J	4.7 J	0.61 J	9	2.1 J	9.1	9.5	1.06 U	0.94 U
1,2,3,6,7,8-HxCDF	0.22 U	0.87 J	0.1 U	3.3 J	4.9 J	0.78 U	0.39 U	0.94 J	2.1 U	2.6 J	0.97 J	3.7 J	8.7 U	0.27 U	0.54 J
1,2,3,7,8,9-HxCDD	2.27 U	5.7	1 U	3.8 J	2.6 J	2.5 U	0.64 J	4.7 J	0.72 J	4.1 J	1.4 J	4 J	4.7 J	2.66 U	2.35 U
1,2,3,7,8,9-HxCDF	3.9 U	4.35 U	0.2	0.4 U	0.2 U	0.3 U	0.2 U	4.37 U	0.3 U	0.3 U	4.33 U	8.2 U	0.05 U	0.2 U	0.4 U
1,2,3,7,8-PeCDD	1.09 U	2.7 J	1.21 U	3.2 J	3.1 J	1.2 U	1.2 U	4.3 J	0.7 J	5.7	1.3 J	7.2	9.2	1.28 U	1.13 U
1,2,3,7,8-PeCDF	1.18 U	1.2 U	1.31 U	6.3	10.2	1 U	0.39 U	2.4 J	0.33 U	1.31 U	1.31 U	9.1	8.1 U	1.38 U	5.8 U
2,3,4,6,7,8-HxCDF	0.1 U	1.2 J	1.92 U	4.1 J	5.9	0.3 U	1.9 U	1.3 J	0.3 U	4.8 J	2 J	6.5 J	6.4 J	0.22 J	0.4 U
2,3,4,7,8-PeCDF	1.36 U	1.6 J	1.51 U	19.6	13.8	0.49	0.39 U	1.5 J	0.89 J	6.2	2.6 J	7.7	6.2	1.59 U	1.41 U
2,3,7,8-TCDD	0.71 U	145	4.9	14.5	8.2	10.5	4.9	2.52	1.7	64	5.89	3,000	67,000	5.3 J	0.04 U
2,3,7,8-TCDF	0.43 U	2.4	0.48 U	26.7	29.4	0.48 U	0.55 U	1.3	1.3	11 U	4.6	8.9 J	29.3 U	0.51 U	0.45 U
OCDD	31.8	667	69.5	88.4 J	57.9 U	30.4 U	43.9 J	73.6 U	27.5 U	842	193	297	63.6 J	63.6	27.4
OCDF	5 J	20.9	1.6 J	40.8	187	3.1 U	2.6 U	10.9	1.9 J	57.9	17.3	48.2	75.5	4.2 J	2.4 J
Dioxin/Furan TEQ[a][2]	1.13 JT	153 JT	6.29 JT	29 JT	22.8 JT	11.8 T	6.32 JT	9.93 JT	3.21 JT	76.6 JT	10.1 JT	3,020 JT	67,000 JT	6.74 JT	1.35 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	HA-19	HA-20	HA-201	HA-203	HA-203 (8280A)	HA-203 (8290)	HA-205	HA-205	HA-207	HA-207	HA-207	HA-208	HA-208	HA-211	HA-215
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/6/2000	12/13/2000	12/4/2001	12/4/2001	12/4/2001	12/4/2001	12/3/2001	12/3/2001	12/3/2001	12/3/2001	12/3/2001	12/3/2001	12/3/2001	12/3/2001	12/13/2001
Collection Depth (ft bgs):	5-7	0-1	0	0	8	8	0	2	0	2	8	0	2	0	0
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	2.3 J	244 J	1.1 U	549	120	99.5	0.81 J	0.97 U	233	25.2	0.85 J	181	32.5	1,000	27.4
1,2,3,4,6,7,8-HpCDF	1.6 J	3.1 U	1.99 U	563 J	1,000	1,000	0.24 U	0.41 U	234	7.8	0.23 J	90.7	18.4	429	9.3
1,2,3,4,7,8,9-HpCDF	0.2 U	56.2 J	2.69 U	20.1 J	30	27.8	2.7 U	2.69 U	9.1	2.7 U	2.69 U	3.5 J	0.75 J	16.4	1.2 J
1,2,3,4,7,8-HxCDD	0.2 U	3.9 J	1.79 U	5.8	80 U	9.3	1.8 U	0.38 J	15	1.8 U	1.8 U	11.5	0.23 J	39.4	0.56 U
1,2,3,4,7,8-HxCDF	1.1 J	9.7 UJ	1.79 U	51.5	160	153	0.23 U	0.28 U	22	2.5 J	0.1 J	14	4.2 J	73.7	1.7 U
1,2,3,6,7,8-HxCDD	0.2 J	13.2 J	1.49 U	35.1	50	46.4	1.5 U	0.26 U	29.7	1.8 J	1.5 U	38.7	3.3 J	162	2.5 J
1,2,3,6,7,8-HxCDF	0.59 J	4.1 J	1.69 U	37.8	80	95.4	1.7 U	0.23 U	10.3	1.1 J	1.7 U	5.9	2 J	36.6	0.99 J
1,2,3,7,8,9-HxCDD	0.36 J	10.6 J	2.19 U	10.7	30	17.8	0.16 U	0.41 J	18.5	1.3 J	2.19 U	25.6	1.6 J	101	1.6 J
1,2,3,7,8,9-HxCDF	0.2 U	4.37 UJ	4.78 U	2.7 J	60 U	4.79 U	4.8 U	0.39 J	4.76 U	4.8 U	4.79 U	0.86 U	4.77 U	4.77 U	0.23 U
1,2,3,7,8-PeCDD	1.13 U	4.3 J	0.25 U	21.3 J	100	86	1.9 U	1.9 U	21.9	0.68 J	1.9 U	20.4	0.98 J	76.2	1.5 J
1,2,3,7,8-PeCDF	1.22 U	17.9 U	1.79 U	73.3	300	312	1.8 U	0.21 J	8.2	1.8 U	1.8 U	5.3	1.79 U	39.3	1 J
2,3,4,6,7,8-HxCDF	0.26 U	5 UJ	3.19 U	45.7	120	1293	3.2 U	0.3 J	14.2	0.94 U	3.19 U	6.4	2.3 J	42.3	1.2 J
2,3,4,7,8-PeCDF	0.43 J	4.6 J	1.79 U	90.5	270	214	1.8 U	0.29 J	17.3	1.7 J	1.8 U	5 J	2.3 J	62.1	1.8 J
2,3,7,8-TCDD	0.2 U	38.4 J	1.2	1,000	72,000	50,000	0.6 J	0.76 J	695	10.5	2.9	2,000	1,000	3,000	32.3
2,3,7,8-TCDF	0.79 NJ	7.7 J	0.77 U	370 J	148,000 J	363 J	0.98 U	0.77 U	69.4	82.8	0.45 U	22.5 J	1.6	6,000 J	3.1
OCDD	17.8 J	10,000 J	7.2	4,000	910	691	5.5 J	4.1 J	1000	246	7 J	690	131	9,000	285
OCDF	0.67 J	107 J	1.5 J	1,000	3,000	2,000	1.5 J	0.72 U	640	8.4 J	0.51 J	126	15	394	27.1
Dioxin/Furan TEQ[a][2]	1.61 JT	55 JT	1.74 JT	1,120 JT	50,200 JT	50,200 JT	2.51 JT	2.9 JT	746 T	21.5 JT	4.82 JT	2,040 JT	1,000 JT	3,760 JT	36 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	HA-216	HE-07	HE-11	HE-15	IA-01	IA-01	IA-01	IA-01	IA-02	IA-02	IA-02	IA-02	IA-03	IA-03	IA-04
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/4/2001	4/16/1991	4/16/1991	4/17/1991	12/7/2000	12/7/2000	12/7/2000	12/7/2000	12/7/2000	12/7/2000	12/7/2000	12/7/2000	12/8/2000	12/8/2000	12/7/2000
Collection Depth (ft bgs):	0	0	0	0	0-0.5	1-3	3-5	5.5-7	0-0.5	1-3	3-5	5.5-7.5	2-3	6-7	6-7
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	424	100 U	--	750	113	16.9	4.7 J	4.6 J	575	27.5	2.8 J	2.8 J	10.7 J	3.4 U	12.3
1,2,3,4,6,7,8-HpCDF	138	100 U	--	2,000	41.3	7.9 J	2.4 U	1.4 U	563	55.4	2 U	2.4 U	5	1.4 U	7.2
1,2,3,4,7,8,9-HpCDF	14.9	100 U	--	100 U	3.9 J	0.65 J	0.62 J	4 U	30.2	3 J	0.41 J	4.01 U	0.66 U	4.01 U	2.9 U
1,2,3,4,7,8-HxCDD	12.1	100 U	--	100 U	2.7 J	0.3 U	0.73 J	1 U	35.4	1.9 J	0.39 J	1.2 U	0.2 U	0.3 U	1 U
1,2,3,4,7,8-HxCDF	23.6	100 U	--	100 U	11.4	2.7 U	1.5 U	0.94 U	110	9.1	1.2 U	1.4 U	3.2 U	0.95 U	4.9 J
1,2,3,6,7,8-HxCDD	36.9	100 U	--	390	8.7	1.1 U	0.83 J	1 U	89.7	4 J	1 U	1 U	1.2 J	1 U	1 U
1,2,3,6,7,8-HxCDF	12.4	100 U	--	170	4.7 J	1.1 J	1 J	0.44 J	66.7	5.4	0.72 J	0.55 U	1.4 U	0.51 U	2.2 U
1,2,3,7,8,9-HxCDD	25	100 U	--	100 U	5.8	1 J	1.5 J	2.5 U	58.6	2.9 J	0.52 J	2.51 U	0.63 U	0.44 J	2.51 U
1,2,3,7,8,9-HxCDF	1.6 U	100 U	--	100 U	0.5 U	0.4 U	0.73 J	0.2 U	4.6 J	4.32 U	0.28 J	4.31 U	0.73 U	4.31 U	4.31 U
1,2,3,7,8-PeCDD	15.4	100 U	--	750	4.2 J	0.69 J	0.61 J	1.2 U	76.1	3.6 J	1.2 UJ	1.2 U	0.41 U	1.2 U	1.2 U
1,2,3,7,8-PeCDF	10.1	100 U	--	100 U	1.3 U	12 U	0.85 J	1.3 U	85.7	1.31 U	0.37 U	0.75 U	1.3 U	0.48 U	1.3 U
2,3,4,6,7,8-HxCDF	15.7	100 U	--	1,000	5.6	1.1 J	0.83 J	0.2 U	72.6	7.3	0.42 U	1.9 U	1.6 U	0.26 U	1.91 U
2,3,4,7,8-PeCDF	16	100 U	--	100 U	5.4	1.1 J	0.68 J	1.5 U	105	7	0.62 J	1.5 UJ	2 J	0.17 U	6.9
2,3,7,8-TCDD	383	100 U	--	88,000	33.2	2.6	0.2 U	0.2 U	--	8.8	0.2 U	0.8 U	1.6	0.3 U	1 U
2,3,7,8-TCDF	49.5	100 U	--	100 U	3.5	1.4	0.48 U	0.73 U	--	3.1	0.26 U	0.48 U	0.79	0.59 U	0.48 U
OCDD	3000	110	--	8,000	749	122	30.1 U	33.8 U	2,000	148	42.9 U	14 U	35.5 U	23.9 U	53.2 J
OCDF	648	--	100,000 U	4,000	97.4	15.4	2 J	0.72 U	678	97.6	1.2 J	3.81 U	3.5 U	3.81 U	3.81 U
Dioxin/Furan TEQ[a][2]	428 T	100 T	30 UT	89,000 T	45.1 JT	4.74 JT	1.66 JT	1.29 JT	166 JT	19.2 JT	1.61 JT	1.23 JT	2.97 JT	1.24 JT	3.97 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC															
Location:	IA-05	IA-06	IA-07	IA-07	IA-08	IA-09	IA-09	IA-10	IA-10	IA-11	IA-12	IA-200	IA-201	IA-202	IA-203
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/7/2000	12/7/2000	12/14/2000	12/14/2000	12/7/2000	12/8/2000	12/8/2000	12/8/2000	12/8/2000	12/8/2000	12/8/2000	11/27/2001	11/27/2001	12/13/2001	11/28/2001
Collection Depth (ft bgs):	6-7	6-7	2-3	6-7	6-7	2-3	6-7	2-3	6-7	6-7	6-7	0	0	0	0
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)																
1,2,3,4,6,7,8-HpCDD	2.7 J	6	1.1 J	2.6 J	2.1 J	3.4 U	4.1 U	4.6 U	5.9 U	6.1 U	4.9 U	7.4	103	78.9	37.2
1,2,3,4,6,7,8-HpCDF	2.5 U	8.6	1.6 U	1.8 U	3.4 U	1.9 U	1.5 U	2.5 U	5.3 U	3.3 U	16.5 J	3.6	25.5	29.9	12
1,2,3,4,7,8,9-HpCDF	4 U	0.73 U	0.6 U	3.99 U	4 U	4 U	4.01 U	4 U	0.8 U	0.6 U	0.86 U	0.61 U	2.2 J	2.4 J	1.3 J
1,2,3,4,7,8-HxCDD	1 U	0.48 J	0.5 U	1 U	0.5 U	0.4 U	1 U	1 U	1 U	1 U	1 U	0.32 U	2.2 J	1.1 U	0.64 J
1,2,3,4,7,8-HxCDF	1.5 U	4.5 J	1.2 J	1.1 J	1.8 U	1.1 U	0.88 U	1.6 U	2.1 U	1.3 U	1.6 U	0.72 U	7.4	26 U	2.7 J
1,2,3,6,7,8-HxCDD	0.33 U	0.97 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 J	0.81 U	9	4.7	5
1,2,3,6,7,8-HxCDF	0.88 J	2 J	0.51 U	0.55 U	1.1 J	0.55 U	4.5 U	0.8 U	1.4 U	0.69 U	0.92 U	1.3 J	3.9 J	25.2 U	0.85 U
1,2,3,7,8,9-HxCDD	0.52 J	1.1 J	2.49 U	2.49 U	2.5 U	2.5 U	2.51 U	0.73	2.51 U	2.49 U	1.4 J	1 U	5.5	4.3	2.8 J
1,2,3,7,8,9-HxCDF	4.3 U	0.41 U	0.4 U	4.29 U	0.4 U	4.3 U	0.5 U	4.3 U	4.32 U	0.4 U	0.3 U	1.2 J	0.44 U	0.68 U	4.68 U
1,2,3,7,8-PeCDD	1.2 U	0.62 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.53 J	0.41 U	3.2 J	1.2 J	1.6 U
1,2,3,7,8-PeCDF	1.3 U	1.3 U	1.3 U	0.85 U	1.3 U	0.38 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.76 U	1.77 U	454 U	1.76 U
2,3,4,6,7,8-HxCDF	0.62 U	2 J	0.3 U	0.3 J	0.68 J	0.3 U	0.4 U	0.39 U	0.67 U	0.27 U	0.69 U	1.4 J	3.5 J	3.1 J	1.2 J
2,3,4,7,8-PeCDF	1.5 U	2 J	0.29 U	0.26 U	1.5 U	0.41 J	1.5 U	0.66 U	1.51 U	0.68 J	1.5 U	0.58 J	2.8 J	3.9 U	0.91
2,3,7,8-TCDD	0.78 U	0.7 U	0.78 U	0.4 U	0.4 U	0.3 U	0.4 U	0.53	1.7	0.33 U	0.78 U	1.1 U	15.9	2.9	5.9
2,3,7,8-TCDF	0.48 U	1.5	0.48 U	0.48 U	0.48 U	0.2	0.35 U	0.31	0.99 U	0.67	0.48 U	0.96 J	1.9 J	216 U	2.6
OCDD	33 U	30.9 U	5 U	20.1	15 U	25.4 U	25.5 U	28.9 U	35.7 U	48.5 J	30.2 U	77.5	718	776	374
OCDF	2.5 J	5.1 J	0.58 J	0.89 J	2.7 J	0.81 U	3.81 U	1 U	4.9 U	3.6 U	48.5	11.2	41.4	57.9	36.5
Dioxin/Furan TEQ[a][2]	1.37 JT	2.7 JT	1.33 JT	1.37 JT	1.4 JT	1.34 JT	1.2 UT	1.83 T	2.9 T	1.49 JT	1.73 JT	1.9 JT	24.9 JT	28.3 JT	9.9 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	IA-204	IA-205 (8280A)	IA-205 (8290)	IA-206	IA-207	IA-207	IA-208	IA-208	IA-208	IAPond-01	IAPond-01	IAPond-01	IAPond-02	IAPond-02	IAPond-02
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	11/27/2001	11/28/2001	11/28/2001	11/27/2001	11/27/2001	11/27/2001	11/27/2001	11/27/2001	11/27/2001	8/9/2017	8/9/2017	8/9/2017	8/9/2017	8/9/2017	8/9/2017
Collection Depth (ft bgs):	2	0	0	0	0	2	0	0	2	0-1	2.5-3.5	7-10	0-1	2.5-3.5	2.5-3.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	2.6	6,000	437	377	542	1.7 UJ	140	157	9.2 J	45.5	5,110	100 U	67.9	4,750	5,100
1,2,3,4,6,7,8-HpCDF	2.4 J	2,000	487 J	127	131	0.46 UJ	170	195	6.7 J	12	2,460	296	50 U	1,260	1,330
1,2,3,4,7,8,9-HpCDF	2.64 U	200	15	8.9	8.9	2.67 UJ	50 U	10	0.53 U	0.862	164	6.26	1.89	98.7	94.2
1,2,3,4,7,8-HxCDD	0.15 J	740	72.3 J	12.6	7.3	1.78 UJ	90 U	4.3	0.21 U	5 U	99.9 U	2.56 U	0.974 U	100 U	99.9 U
1,2,3,4,7,8-HxCDF	0.89 U	2,000	238	34.8	25.3	1.78 UJ	450	904	6.9 J	5 U	446	100 U	50 U	178	161
1,2,3,6,7,8-HxCDD	0.31 U	3,000	266	44.1	28.6	1.48 UJ	60 U	19.1	0.77 J	2.07	176	8.97	3.33	115	108
1,2,3,6,7,8-HxCDF	0.34 U	800	138	12.2	10.5	1.68 UJ	40	55.9	0.87 J	5 U	132	100 U	50 U	100 U	99.9 U
1,2,3,7,8,9-HxCDD	0.44 U	2,000	116	31.3	17.6	2.18 UJ	70 U	12	0.61 J	1.84 J+	63.2 J+	4.38 U	2.05 J+	45.7 J+	41 J+
1,2,3,7,8,9-HxCDF	4.7 U	80 U	4.6 J	1.6 J	2.9 J	4.75 UJ	70 U	2.5 J	4.77 U	0.106 U	5.46	2.13 U	1.28 U	100 U	99.9 U
1,2,3,7,8-PeCDD	0.17 J	4,000	--	18.8	9.2	1.88 UJ	70 U	70 U	0.62 J	0.689	45.5	25.1	1.89 U	6.69	6.59
1,2,3,7,8-PeCDF	1.76 U	890	--	9.4	11.5	1.78 UJ	60	60	0.51 J	0.723	99.1	52.2	1.58	9.59	7.15
2,3,4,6,7,8-HxCDF	0.29 U	900	256	13.7	12.5	3.16 UJ	50	46.6	1 J	0.506	84.6	22.4	1.25 U	17.9	17.1
2,3,4,7,8-PeCDF	1.76 U	2,000	--	10.3	11.8	1.78 UJ	430	430	5.3 J	0.764	128	53.1	3.1	22.8	18
2,3,7,8-TCDD	0.74 J	3,000	--	33.5	28.1	0.63 UJ	160	160	2.1 J	4.78	268	61.1	4.4	80.4	43.3 J
2,3,7,8-TCDF	0.75 UJ	48,000	--	11.4 J	10.6 J	0.76 UJ	15,000	15,000	7.1	2.28 U	99 U	77.3 U	6.28 J	11.4 J	10 J
OCDD	14.7 U	6,000	2,000	2,000	2,000	10.7 UJ	2,000	1,000	79.8 J	401	79,100	871	691	85,500	94,200
OCDF	4.6 J	660	614	220	415	1.3 UJ	280	270	11.3 J	36	7,690	518	100 U	6,020	6,160
Dioxin/Furan TEQ[(a)(2)]	1.5 JT	119 JT	119 JT	77.6 JT	60.3 JT	1.88 UJT	108 JT	108 JT	6.71 JT	7.38 JT	559 JT	120 T	12.4 JT	230 JT	195 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	IAPond-02	IAPond-03	IAPond-03	IAPond-03	ITP-02	ITP-09C	LA-01	LA-02	LA-03	LA-04	LA-05	LA-06	LA-07	LA-08	LA-10
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	8/9/2017	8/9/2017	8/9/2017	8/9/2017	4/29/1993	5/4/1993	12/18/2000	12/18/2000	12/18/2000	12/19/2000	12/19/2000	12/19/2000	12/19/2000	12/18/2000	12/26/2000
Collection Depth (ft bgs):	7-10	0-1	2.5-3.5	7-10	7-8	3-4	4-6	4-6	5-7	5-7	5-7	6-8	5-7	4.5-6.5	10-12
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	100 U	247	99.9 U	230	1.2 J	2,000	17.8	414	17.2	41.7	258	42.3	31.7	6,000	2.7 J
1,2,3,4,6,7,8-HpCDF	268	811	693	214	0.43 J	3,000	12	52.9	4.5 J	13.4	50.4	12.9	10.3	590	1.8 U
1,2,3,4,7,8,9-HpCDF	6.38	16.8	11.7	10.2	0.041 U	410	0.49 U	2.9 J	4.01 U	0.9 U	2.9 U	0.87 J	0.66 U	38.8	3.91 U
1,2,3,4,7,8-HxCDD	100 U	100 U	99.9 U	2.93 U	0.07 U	68	1 U	2.3 J	1 U	1 U	3.6 J	1 U	1.1 U	47.6	0.98 U
1,2,3,4,7,8-HxCDF	24.6	100 U	66.3	100 U	0.14 U	270	1.6 U	7	1.8 U	3.8 J	6	2.2 J	1.9 J	75.5	1.3 U
1,2,3,6,7,8-HxCDD	10 U	63.8	46.6	14.6	0.17 U	86	0.84 J	20.9	1.4 J	2 J	9.4	2 J	1.3 J	142	0.98 U
1,2,3,6,7,8-HxCDF	20.8	100 U	60.9	100 U	0.11 U	190	0.67 U	3.1 J	1 U	0.3 U	4.1 J	1.3 J	0.77 J	32.2	0.67 U
1,2,3,7,8,9-HxCDD	4.66 J+	25.1 J+	13.1 J+	7.7 J+	0.11 U	86	0.55 J	9.3	0.7 U	1.3 U	8.6	1.3 J	1 J	87	0.45 J
1,2,3,7,8,9-HxCDF	5 U	2.11 U	5 U	2.07 U	0.04 U	49	4.31 U	4.33 U	4.31 U	4.31 U	0.9 U	4.31 U	4.31 U	4.4 U	4.2 U
1,2,3,7,8-PeCDD	15.9	126	119	14.3	0.078 U	45	0.11 U	1.5 J	0.59 J	0.5 J	1.8 J	0.29 U	1.2 U	54.4	1.17 U
1,2,3,7,8-PeCDF	47.5	158	149	22.9	0.11 U	61	1.3 U	1.31 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	44	0.47 U
2,3,4,6,7,8-HxCDF	19.2	69.3	61	111	0.37 U	67	0.62 J	3.9 J	0.2 U	2 J	5.9	2.1 J	1.1 J	42.2	0.31
2,3,4,7,8-PeCDF	43.1	161	162	21.8	0.12 U	830	0.54 J	3.7 J	0.93 U	0.96 J	2.2 J	1.1 J	0.61 J	59.7	0.44 U
2,3,7,8-TCDD	47.9	230	178	16.3 J	0.099 U	210	0.34 J	6.1	63.9	4	10.3	3.5	0.7 J	3,000	0.76 U
2,3,7,8-TCDF	62 J	352 J	329 J	22.9 J	--	--	0.71 U	2.1	3.8 J	1.6	2.5	0.96 J	0.87	101	0.97 U
OCDD	232	1,500	278	2730	8.4 J	36,000	197	4,000 J	99.9	449 J	3,000	402 U	356 U	67,000	22.6 U
OCDF	607	853	624	332	0.13 U	16,000	8.3 J	153	4.2 U	20	73.7	37.2	23.2	2,000 J	1.1
Dioxin/Furan TEQ[a][2]	104 JT	482 JT	425 JT	68.9 JT	0.118 JT	657 T	1.49 JT	19.9 JT	65.7 JT	6.85 JT	20.9 JT	5.82 JT	3.2 JT	3,210 JT	1.27 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC															
Location:	LA-10	LA-11	LA-13	LA-13	LA-14	LA-200	LA-200	LA-200	LA-201	LA-202	LA-203	LA-204	LA-204	LA-205	LA-205
Sample Name:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	12/26/2000	12/26/2000	12/18/2000	12/18/2000	12/19/2000	11/29/2001	11/29/2001	11/29/2001	11/28/2001	11/28/2001	11/28/2001	11/29/2001	11/29/2001	11/29/2001	11/29/2001
Collection Depth (ft bgs):	6-7	10-12	22-24	3-5	7-9	0	2	8-10	8	8	8	0	2	0	2
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	106	5 J	5.4	529	40.7	1 U	11.5	403	383	11.2	67.2	1.6 U	45.4	521	71
1,2,3,4,6,7,8-HpCDF	161 J	31.1 J	2.5 UJ	251	27	1.99 U	4.7 J	179	112	3.9 J	1.94 U	0.74 J	19.4	109	71.3
1,2,3,4,7,8,9-HpCDF	10.2	1.3 J	3.99 U	12.2	1.4 J	2.69 U	0.62 J	8.6	5.3	2.68 U	2.62 UJ	0.58 U	2.69 U	6.3	1.4 J
1,2,3,4,7,8-HxCDD	2.8 U	0.25 U	1 U	13.3	0.41 J	1.79 U	0.5 J	9.5	3.6 J	1.78 U	1.75 U	0.58 J	1.79 U	6.7	1 J
1,2,3,4,7,8-HxCDF	286	3.2 J	1.2 U	43.1	3.8 J	1.79 U	0.94 J	24	7.2	1.1 J	39.9	0.72 J	1.79 U	10.4	3.8 J
1,2,3,6,7,8-HxCDD	7.3	0.86 J	0.36 J	44.9	2 J	1.5 U	0.82 J	35.2	20	0.77 U	1.45 U	0.53 J	1.49 U	23	3.9 J
1,2,3,6,7,8-HxCDF	570	2.8 J	0.55 U	24.1	1.8 J	1.69 U	0.57 J	14.3	6.3	0.32 U	1.65 U	0.58 U	1.69 U	6.2	2.9 J
1,2,3,7,8,9-HxCDD	5.9	0.5 J	2.5 U	32.6	1.2 J	2.19 U	0.97 J	18.8	10.1	2.18 U	2.13 U	0.87 J	2.19 U	20.5	2.7 J
1,2,3,7,8,9-HxCDF	4.15 U	0.18 U	4.29 U	1.4 J	4.28 U	4.78 U	0.62 J	2.7 U	4.64 U	4.76 U	4.66 U	0.66 J	4.77 U	5.6	0.38 J
1,2,3,7,8-PeCDD	--	1.5 J	1.2 U	37.2 J	0.83 J	1.89 U	0.36 U	23.6	2.6 J	1.88 U	1.84 UJ	0.5 U	1.89 U	6.2	2.1 J
1,2,3,7,8-PeCDF	--	5.8	0.86 U	46.4 U	1.3 U	1.79 U	0.48 J	12.7	1.74 U	1.78 U	49.7 U	0.5 J	6.3	4 J	2.5 J
2,3,4,6,7,8-HxCDF	1.83 U	3.6 J	0.29 J	33.9	2.7 J	3.19 U	0.72 J	16.2	10	0.43 U	3.1 U	0.59 J	3.18 U	8.4	3.5 J
2,3,4,7,8-PeCDF	--	8	1.5 U	48 J	1.8 U	1.79 U	0.53 J	23.9	3.1 J	0.49 J	26.1 J	0.55 J	1.79 U	5.6	4.1 J
2,3,7,8-TCDD	--	150	0.23 U	315 J	4.2	0.29 J	0.51 J	209	0.52 J	0.98 J	0.62 U	0.27 J	57.4	8.3	38.7
2,3,7,8-TCDF	--	14.8	0.48 UJ	17,000 R	2.7	0.8 N	0.55 J	52.7	1.2	0.96 J	50 J	0.7 N	78.9	4.2	4.8
OCDD	2,000	39.2 U	259	3,000	421 U	6.8 U	126	3,000	3,000	115	672 J	6.7 U	403	5,000	831
OCDF	9,000 J	90.8	1.4 U	487	55.8	0.69 J	10.6	634	348	12.9	2.42 UJ	1.4 J	25.6	168	50.6
Dioxin/Furan TEQ[a][2]	93.4 JT	157 JT	1.4 JT	396 AJT	7.74 JT	2.26 JT	1.82 JT	264 T	16.4 JT	3.4 JT	19.5 JT	1.42 JT	68.1 T	32.7 JT	46.1 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	LA-206	LA-206	LA-206	LA-207	LA-207	LA-207	LA-208	LA-209	LA-209	LADD-101	LADD-101	LADD-101	LADD-102	LADD-102	LADD-102
Sample Name:	--	--	--	--	--	--	--	--	--	001-01	002-01	003-01	004-01	004-02	005-01
Collection Date:	11/29/2001	11/29/2001	11/29/2001	11/29/2001	11/29/2001	11/29/2001	11/30/2001	11/29/2001	11/29/2001	10/11/2004	10/11/2004	10/11/2004	10/11/2004	10/11/2004	10/11/2004
Collection Depth (ft bgs):	0	2	8	0	2	8	0	0	8	0-1	1-5	5-8	0-1	0-1	1-5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	121	44	0.93 U	3.9 J	3.4 J	12.2	2.8 J	421	1 U	1,000	80	39	3,000	3,000	160
1,2,3,4,6,7,8-HpCDF	65.2	16.9	2.02 U	0.84 U	3.7 J	281	0.91 J	288	1.99 U	260	2,000	580	500	550	2,000
1,2,3,4,7,8,9-HpCDF	6.7	0.75 U	2.73 U	2.69 U	2.68 U	6.1	2.69 U	7.6	2.68 U	20	43	25	35	33	78
1,2,3,4,7,8-HxCDD	3.1 J	0.77 J	1.82 U	1.79 U	0.2 J	0.68 J	1.79 U	5	1.79 U	25	8	8.9	40	41	14
1,2,3,4,7,8-HxCDF	12.4	2.5 J	1.82 U	1.79 U	0.75 J	13.3	0.33 J	14.2	1.79 U	42	160	98	68	71	230
1,2,3,6,7,8-HxCDD	14.8	2.8 J	1.52 U	1.49 U	0.69 J	12	1.49 U	23.9	1.49 U	81	65	31	150	170	81
1,2,3,6,7,8-HxCDF	6.1	1.3 J	1.72 U	1.69 U	0.58 U	6.2	1.69 U	11	1.69 U	23	88	47	39	39	91
1,2,3,7,8,9-HxCDD	6.6	1.9 J	2.22 U	2.19 U	0.34 J	7.9	2.19 U	11.9	2.19 U	44	38	13	73	90	49
1,2,3,7,8,9-HxCDF	0.87 J	0.39 J	4.85 U	4.78 U	0.26 J	4.77 U	4.78 U	1.3 J	4.77 U	0.99 U	1.9 U	4.1 U	1.7 U	1.7 U	5.4
1,2,3,7,8-PeCDD	10.4	1.3 J	1.92 U	1.89 U	0.64 J	7.6	1.89 U	7.9	1.89 U	59	110	70	91	98	98
1,2,3,7,8-PeCDF	10.2	1.3 J	1.82 U	1.79 U	0.98 U	3.6 J	1.79 U	10.5	1.79 U	83	520	250	100	100	300
2,3,4,6,7,8-HxCDF	8	1.5 J	3.23 U	3.19 U	0.63 U	6.7	3.19 U	14.7	3.18 U	21	74	38	39	37	75
2,3,4,7,8-PeCDF	14.4	1.6 J	1.82 U	1.79 U	0.91 J	5.7	1.79 U	13.4	1.79 U	54	180	100	85	86	130
2,3,7,8-TCDD	270	22.1	0.65 U	0.96 U	2	63.6	0.73 U	500	0.64 U	2,000 J	22,000 J	32,000 J	2,000 J	2,000 J	19,000 J
2,3,7,8-TCDF	28.4	2.9	0.78 U	0.77 U	2.1	17	0.77 U	21.9	0.77 U	170 J	570 J	310 J	220 J	230 J	370
OCDD	721	684	7.9 U	32.4	21.7 J	62.6	19.4 J	4,000	5.7 U	8,000 J	420	290	19,000 J	20,000 J	2,000
OCDF	190	31.6	2.53 U	3.1 J	7.2 J	443	1.9 U	476	2.48 U	920	3,000	2,000	2,000	2,000	6,000 J
Dioxin/Furan TEQ[a][2]	295 JT	26.2 JT	1.92 UT	1.94 JT	3.49 JT	83 JT	1.97 JT	531 JT	1.89 UT	2,130 JT	22,300 JT	32,200 JT	2,220 JT	2,240 JT	19,300 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	LADD-102	NB-06	NB-06	NB-06	NB-07	NB-14	NB-20	NPAS-01	NPAS-02	OW-01(61)	OW-01(61)	OW-03(65)	OW-03(65)	OW-05(69)	OW-05(69)
Sample Name:	006-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Collection Date:	10/11/2004	12/11/2003	12/11/2003	12/11/2003	12/9/2003	12/18/2003	1/20/2004	8/11/2017	8/11/2017	6/27/2006	6/27/2006	6/22/2006	6/22/2006	6/15/2006	6/15/2006
Collection Depth (ft bgs):	5-10	20	31.5	7	20	20.5	39	0-1	0-1	35-40	55-57.5	35-40	63-65	35-40	65-70
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	15	400 U	370 U	380 U	400 U	260 U	240 U	4.97 U	4.94 U	2.22 J	1.62 J	15.1 J	1.08 J	1.49 J	0.74 U
1,2,3,4,6,7,8-HpCDF	290	2,000 U	2,000 U	2,000 U	2,000 U	1,000 U	1,000 U	1.03	1.7	0.504 J	0.463 U	1.64 J	0.515 U	0.514 U	0.509 U
1,2,3,4,7,8,9-HpCDF	9.3	1,000 U	1,000 U	1,000 U	1,000 U	850 U	780 U	0.104 U	4.94 U	0.285 U	0.265 U	0.357 U	0.294 U	0.294 U	0.291 U
1,2,3,4,7,8-HxCDD	1.6 U	1,000 U	1,000 U	1,000 U	1,000 U	850 U	780 U	0.104 U	0.152	0.268 U	0.25 U	0.336 U	0.277 U	0.277 U	0.274 U
1,2,3,4,7,8-HxCDF	29	2,000 U	1,000 U	1,000 U	1,000 U	980 U	900 U	0.19	0.338	0.347 U	0.323 U	0.435 U	0.359 U	0.358 U	0.355 U
1,2,3,6,7,8-HxCDD	9.7	2,000 U	1,000 U	1,000 U	1,000 U	980 U	900 U	4.97 U	4.94 U	0.304 U	0.283 U	0.622 J	0.314 U	0.314 U	0.311 U
1,2,3,6,7,8-HxCDF	12	2,000 U	2,000 U	2,000 U	2,000 U	1,000 U	960 U	0.101 U	0.17	0.26 U	0.241 U	0.325 U	0.268 U	0.268 U	0.265 U
1,2,3,7,8,9-HxCDD	6.2	1,000 U	1,000 U	1,000 U	1,000 U	910 U	840 U	4.97 U	4.94 U	0.344 U	0.32 U	0.885 J	0.355 U	0.355 U	0.351 U
1,2,3,7,8,9-HxCDF	0.76 U	1,000 U	1,000 U	1,000 U	1,000 U	720 U	660 U	0.1 U	0.101 U	0.322 U	0.3 U	0.403 U	0.333 U	0.333 U	0.329 U
1,2,3,7,8-PeCDD	14	1,000 U	1,000 U	1,000 U	1,000 U	780 U	720 U	0.109 U	0.199	0.323 U	0.3 U	0.404 U	0.334 U	0.333 U	0.33 U
1,2,3,7,8-PeCDF	40	1,000 U	1,000 U	1,000 U	1,000 U	780 U	720 U	0.105 U	0.179	0.266 U	0.248 U	0.333 U	0.275 U	0.275 U	0.272 U
2,3,4,6,7,8-HxCDF	11	900 U	840 U	870 U	890 U	590 U	540 U	0.0942 U	4.94 U	0.288 U	0.268 U	0.36 U	0.297 U	0.297 U	0.294 U
2,3,4,7,8-PeCDF	25	1,000 U	1,000 U	1,000 U	1,000 U	780 U	720 U	0.128 U	0.212	0.327 U	0.304 U	0.409 U	0.338 U	0.337 U	0.334 U
2,3,7,8-TCDD	4,000 J	70 J	130 J	290 U	140 J	200 U	2,000	0.0921 K	0.781 J	1.98	0.0559 U	0.0752 U	0.062 U	0.062 U	0.0613 U
2,3,7,8-TCDF	53	410 NJ	1,000 NJ	140 NJ	790 NJ	130 U	7,000	0.52 J	0.478 J	0.397 J	0.0936 U	0.197 J	0.104 U	0.158 J	0.128 J
OCDD	140	900 U	840 U	870 U	890 U	590 U	540 U	38.8	62.4	18.8 J	18.5 J	110 J	10.3 J	10.2 J	3.84 J
OCDF	770	2,000 U	2,000 U	2,000 U	2,000 U	1,000 U	1,000 U	3.44	7.23	2.2 J	1.26 U	6.72 J	1.4 U	1.4 U	1.38 U
Dioxin/Furan TEQ[a][2]	4,040 JT	1,110 JT	1,230 JT	1,010 JT	1,220 JT	780 UT	3,420 T	0.683 JT	1.69 JT	2.38 JT	0.322 JT	0.777 JT	0.348 JT	0.367 JT	0.344 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC											SOU			
Location:	OW-08(69)	OW-08(69)	OW-12(73)	OW-12(73)	PL-03	S-02-EE	TP-1A	TP-1B	TP-5A	TP-8A	W-09-133	RP-20-97	RP-21-150	RP-24-85	RP-25-113
Sample Name:	--	--	--	--	--	--	--	--	--	--	1600-01	1003-01	1012-01	1018-01	1610-01
Collection Date:	6/12/2006	6/12/2006	6/12/2006	6/12/2006	4/14/1993	6/1/1984	10/3/2007	10/4/2007	9/25/2007	9/26/2007	5/27/2009	10/6/2006	10/20/2006	10/27/2006	6/10/2009
Collection Depth (ft bgs):	35-40	64	35-40	68-73	0-0.5	3	10-11	10-11	7	9	111-116	23-25	15-25	30-32.5	105-106
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	6.36	1.24 J	5.1	1.38 J	28	--	2.5 U	49	280	100	3.21 J	8.15	300 J	146 J	0.412 U
1,2,3,4,6,7,8-HpCDF	0.712 J	0.566 U	0.528 U	0.512 U	22	--	0.61 U	17	28	24	0.504 U	2.07 J	73.6 J	35.6 J	0.55 U
1,2,3,4,7,8,9-HpCDF	0.338 U	0.324 U	0.302 U	0.293 U	2.6	--	0.14 U	1.6 U	3.3 J	2.1 U	0.522 U	0.336 U	16.5 J	10.2 J	0.569 U
1,2,3,4,7,8-HxCDD	0.318 U	0.305 U	0.285 U	0.276 U	0.33 J	--	0.14 U	0.57 U	1.1 U	1.4 U	0.358 U	0.316 U	4.87 U	5.27 U	0.39 U
1,2,3,4,7,8-HxCDF	0.411 U	0.395 U	0.368 U	0.357 U	2.5	--	0.12 U	2.1 U	3.7 J	3.3 J	0.505 U	0.604 J	104 J	50.1 J	0.55 U
1,2,3,6,7,8-HxCDD	0.36 U	0.346 U	0.323 U	0.312 U	1.3 J	--	0.14 U	2.8 U	6	4.6 J	0.378 U	0.358 U	10.4 J	5.97 U	0.412 U
1,2,3,6,7,8-HxCDF	0.307 U	0.295 U	0.275 U	0.266 U	1.5 J	--	0.13 U	1.5 U	2.9 J	1.8 U	0.121 U	0.323 J	24.9 J	11.8 J	0.132 U
1,2,3,7,8,9-HxCDD	0.408 U	0.391 U	0.609 J	0.353 U	0.73 J	--	0.19 U	1.8 U	2.6 U	1.9 U	0.319 J	0.405 U	6.24 U	6.76 U	0.226 U
1,2,3,7,8,9-HxCDF	0.382 U	0.366 U	0.342 U	0.331 U	0.53 U	--	0.11 U	0.2 U	1.1 U	1.9 U	0.233 U	0.38 UJ	10.1 J	9.25 J	0.254 U
1,2,3,7,8-PeCDD	0.383 U	0.367 U	0.342 U	0.332 U	0.33 J	--	0.45 U	0.97 U	1.7 U	2.4 U	0.244 U	0.38 U	5.86 U	6.34 U	0.266 U
1,2,3,7,8-PeCDF	0.315 U	0.302 U	0.282 U	0.273 U	0.57 J	--	0.16 U	0.94 U	1.1 U	1.1 U	0.281 U	0.372 J	44.7 J	28.5 J	0.306 U
2,3,4,6,7,8-HxCDF	0.341 U	0.327 U	0.305 U	0.296 U	1.5 J	--	0.091 U	1.6 U	2.7 U	1.1 U	0.275 U	0.339 U	6.92 J	5.65 U	0.3 U
2,3,4,7,8-PeCDF	0.387 U	0.372 U	0.347 U	0.336 U	1.4 J	--	0.14 U	1.9 U	2.8 U	1.8 U	0.23 U	0.385 U	22 J	16.2 J	0.25 U
2,3,7,8-TCDD	0.0712 U	0.0683 U	0.789	0.0617 U	3.4	50 U	0.16 U	83	1.4	4.3	0.105 U	0.0707 U	1.09 U	1.18 U	0.114 U
2,3,7,8-TCDF	0.168 J	0.18 J	0.17 J	0.109 J	0.56	--	0.52 U	2.6	2.5	1.8 U	0.204 J	0.537 J	48.6	35.4	0.269 J
OCDD	51 J	12.9 J	39.9 J	14.7 J	310	--	22 U	570	6,000 J	2,000	27.3	64.2 J	3,000	2,000	1.83 J
OCDF	3.23 J	1.54 U	1.44 U	1.39 U	84	--	1.3 U	42	110	59	0.65 U	1.93 J	160	54.3 J	0.709 U
Dioxin/Furan TEQ[a][2]	0.487 JT	0.401 JT	1.27 JT	0.361 JT	5.71 JT	50 UT	0.45 UT	85.1 T	9.56 JT	9.35 JT	0.337 JT	0.66 JT	39.1 JT	25.2 JT	0.293 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-25-30	RP-25-86	RP-25-86	TP-03	TP-04	TP-05	TP-07	WS-48	WS-48	WS-48	WS-48	WS-48	WS-49	WS-49	WS-49
Sample Name:	1613-01	1612-01	1612-02	TP03-S-12.5	TP04-S-12.3	TP05-S-13.5	TP07-S-11.0	WS48-S-0.5	WS48-S-11.0	WS48-S-18.0	WS48-S-2.0	WS48-S-22.5	WS49-S-0.5	WS49-S-11.0	WS49-S-11.0-DUP
Collection Date:	6/15/2009	6/15/2009	6/15/2009	11/13/2018	11/14/2018	11/14/2018	11/12/2018	12/17/2018	12/17/2018	12/17/2018	12/17/2018	12/17/2018	12/19/2018	12/19/2018	12/19/2018
Collection Depth (ft bgs):	25-26	85-86	85-86	12.5	12.3	13.5	11	0.5	11	18	2	22.5	0.5	11	11
Sample Type:	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	0.529 J	1.45 J	1.7 J	1.79 J	11.9	173	631 J	13.6	6.7	30.8	17.5	3.69 J	216	26.1 J	9.79 J
1,2,3,4,6,7,8-HpCDF	0.512 U	0.536 U	0.548 U	1.18 J	5.09	19.3 J	143 UJK	1.92 J	1.02 UJK	6.42	2.72 J	1.49 J	61.8	6.42	3.31 J
1,2,3,4,7,8,9-HpCDF	0.53 U	0.555 U	0.567 U	0.103 U	0.995 J	4.22 J	17.8 J	0.241 UJK	0.149 U	0.506 J	0.55 J	0.189 U	5.69	1.05 J	0.636 J
1,2,3,4,7,8-HxCDD	0.363 U	0.38 U	0.389 U	0.135 U	0.232 U	3.49 U	4.1 U	0.247 UJK	0.211 U	0.28 J	0.199 U	0.191 U	1.98 J	0.288 U	0.318 U
1,2,3,4,7,8-HxCDF	0.512 U	0.536 U	0.548 U	0.152 J	4.19 J	14 J	71.5	0.516 J	0.777 UJK	1.35 J	1.77 J	0.591 J	14.3	5.86	2.97 J
1,2,3,6,7,8-HxCDD	0.384 U	0.402 U	0.41 U	0.131 U	0.459 J	3.39 UJK	14.7 J	0.452 UJK	0.213 U	1.17 J	0.52 UJK	0.425 J	9.46	0.735 J	0.342 J
1,2,3,6,7,8-HxCDF	0.123 U	0.129 U	0.131 U	0.0994 U	1.35 J	4.32 J	20.1 J	0.214 J	0.223 J	0.506 J	0.575 J	0.895 J	5.1	1.58 J	1 J
1,2,3,7,8,9-HxCDD	0.21 U	0.22 U	0.225 U	0.138 U	0.403 J	3.31 U	8.74 UJK	0.442 J	0.221 U	0.548 UJK	0.375 J	0.241 J	3.95 J	0.467 UJK	0.335 U
1,2,3,7,8,9-HxCDF	0.237 U	0.248 U	0.253 U	0.145 U	0.578 J	3.37 UJ	11.3 J	0.269 UJK	0.201 J	0.712 UJK	0.383 J	0.36 J	2.4 J	1.01 J	0.44 UJK
1,2,3,7,8-PeCDD	0.247 U	0.259 U	0.265 U	0.0665 U	0.142 U	2.75 U	3.79 UJK	0.159 U	0.135 U	0.21 U	0.165 U	0.337 J	1.5 UJK	0.282 U	0.264 U
1,2,3,7,8-PeCDF	0.285 U	0.298 U	0.305 U	0.14 UJ	2.85 J	15.9 UJK	45.3 J	0.413 UJK	0.515 UJK	0.49 J	1.23 UJK	0.27 UJK	7.02	4.93 UK	2.01 J
2,3,4,6,7,8-HxCDF	0.279 U	0.292 U	0.299 U	0.105 U	0.455 UJK	2.52 J	9.7 J	0.238 U	0.128 U	0.627 J	0.224 J	2.23 J	3.94 J	0.543 J	0.388 J
2,3,4,7,8-PeCDF	0.233 U	0.244 U	0.249 U	0.0617 U	1.31 J	10.8 J	22.5 J	0.311 UJK	0.243 J	0.756 J	0.7 J	4.19 J	4.93	2.11 J	0.928 J
2,3,7,8-TCDD	0.106 U	0.111 U	0.114 U	0.0811 U	0.149 UJK	2.25 U	2.8 U	0.3 U	0.25 U	0.357 U	0.266 U	0.213 U	0.55 U	0.299 U	0.285 U
2,3,7,8-TCDF	0.101 U	0.333 J	0.356 J	0.174 UJK	1.74	31.9	28.6 J	0.38 UJK	0.424 J	0.534 UJK	0.732 J	0.491 J	6.22	3.09 J	1.53 UJK
OCDD	3.59 J	7.59 J	10.7	13.3	123	1,660	6,500 J	137	57.3	355	165	21.8	2670	259 J	104 J
OCDF	0.66 U	0.691 U	0.706 U	1.07 J	12.2	61.3 J	342 J	5.32 J	2.15 UJK	8.67 J	7.12 J	1.25 J	134	13.8	5.66 J
Dioxin/Furan TEQ[(a)(2)]	0.253 JT	0.309 JT	0.321 JT	0.13 JT	1.72 JT	13.7 JT	36 JT	0.615 JT	0.492 JT	1.48 JT	1.14 JT	2.39 JT	11.6 JT	2.63 JT	1.26 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WS-49	WS-49	WS-50	WS-50	WS-50	WS-50	WS-51	WS-51	WS-51	WS-51	WS-52	WS-52	WS-52	WS-52	WS-52
Sample Name:	WS49-S-2.0	WS49-S-37.0	WS50-S-0.5	WS50-S-11.0	WS50-S-2.0	WS50-S-32.5	WS51-S-0.5	WS51-S-11.0	WS51-S-15.5	WS51-S-2.0	WS52-S-0.5	WS52-S-11.0	WS52-S-11.0-DUP	WS52-S-18.5	WS52-S-2.0
Collection Date:	12/19/2018	12/19/2018	12/18/2018	12/18/2018	12/18/2018	12/18/2018	12/17/2018	12/17/2018	12/17/2018	12/17/2018	12/18/2018	12/18/2018	12/18/2018	12/18/2018	12/18/2018
Collection Depth (ft bgs):	2	37	0.5	11	2	32.5	0.5	11	15.5	2	0.5	11	11	18.5	2
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	186	1.2 J	497	56.4	229 J-	1.58 J	39.6	53.9	4.85 J	108	18.9	33.9 J	57 J	0.25 U	7.89
1,2,3,4,6,7,8-HpCDF	33.2	0.175 U	84.5	6.94	38.1	0.496 J	4.46 J	4.77 J	0.0982 U	15	1.93 UJK	37.1	24.3	0.0939 U	1.23 J
1,2,3,4,7,8,9-HpCDF	2.12 J	0.243 U	5.88	1.2 J	2.63 UJK	0.188 U	0.439 UJK	0.511 J	0.139 U	0.83 J	0.239 U	2.37 J	4.09 J	0.143 U	0.214 U
1,2,3,4,7,8-HxCDD	1.47 J	0.19 U	4.34 J	0.349 UJK	2.18 J	0.147 U	0.355 J	0.322 U	0.229 U	0.755 J	0.292 UJK	0.439 U	0.728 UJK	0.151 U	0.192 U
1,2,3,4,7,8-HxCDF	2.67 UJK	0.157 U	7.5	4.24 J	3.54 J	0.133 U	0.707 J	1.23 UJK	0.0827 U	1.41 J	0.484 UJK	11.7 J	19.6 J	0.122 U	0.679 UJK
1,2,3,6,7,8-HxCDD	8.53	0.193 U	21	1.23 J	10.1	0.142 U	1.63 J	1.19 UJK	0.231 U	3.13 J	1.08 J	1.42 J	2.57 J	0.143 U	0.196 U
1,2,3,6,7,8-HxCDF	1.42 J	0.157 U	3.71 J	1.38 J	1.76 J	0.141 U	0.337 UJK	0.499 UJK	0.0843 U	0.749 UJK	0.29 UJK	3.9 J	4.98	0.126 U	0.234 UJK
1,2,3,7,8,9-HxCDD	3.92 J	0.199 U	9.39	0.536 J	4.5 J	0.148 U	1.13 J	0.607 UJK	0.41 J	1.22 J	0.841 UJK	0.97 UJK	1.29 UJK	0.153 U	0.202 U
1,2,3,7,8,9-HxCDF	0.938 UJK	0.215 U	2.51 J	0.889 J	1.3 J	0.199 U	0.252 J	0.581 UJ	0.12 U	0.597 UJK	0.308 U	1.92 UJK	2.63 J	0.191 U	0.212 UJK
1,2,3,7,8-PeCDD	1.36 UJK	0.178 U	2.69 J	0.377 UJK	1.49 UJK	0.117 U	0.335 UJK	0.274 UJK	0.143 U	0.421 J	0.235 UJK	0.48 UJK	0.409 J	0.151 U	0.163 U
1,2,3,7,8-PeCDF	1.19 UJK	0.165 U	2.58 J	0.141 J	1.64 J	0.18 UJK	0.25 J	0.853 UJK	0.119 U	0.674 UJK	0.404 J	6.03	11.3	0.168 U	0.555 UJK
2,3,4,6,7,8-HxCDF	1.98 J	0.16 U	4.91 J	0.593 J	2.54 J	0.148 U	0.406 UJK	0.25 U	0.0831 U	0.782 J	0.269 J	1.71 J	2.32 J	0.136 U	0.148 U
2,3,4,7,8-PeCDF	1.8 J	0.142 U	4.42 J	1.5 J	2.3 UJK	0.0876 U	0.337 J	0.601 UJK	0.0998 U	0.822 J	0.168 U	3.71 J	6.42	0.138 U	0.198 U
2,3,7,8-TCDD	0.652 UJK	0.288 U	2.07	0.405 U	0.739 J	0.179 U	0.323 U	0.399 U	0.251 U	0.391 U	0.282 U	0.492 U	0.427 U	0.351 U	0.242 U
2,3,7,8-TCDF	1.14	0.264 U	3.39	1.97	1.56	0.224 U	0.311 UJK	0.641 J	0.21 U	0.533 UJK	0.308 U	4.04	8.21	0.319 U	0.322 UJK
OCDD	2060	5.26 UJ	4960 J	443	2,080	8.52 J	314	449	40.5	1150	135	386	595	0.682 UJ	68.1
OCDF	90.2	0.326 U	250	17.9	115	0.32 J	8.87 J	14.6	0.204 U	39.4	3.69 J	26.6 J	49.9 J	0.309 U	2.47 J
Dioxin/Furan TEQ[a][2]	6.6 JT	0.3 JT	19.3 JT	2.73 JT	8.36 JT	0.202 JT	1.39 JT	1.19 JT	0.353 JT	3.38 JT	0.66 JT	4.92 JT	8.18 JT	0.351 UJT	0.354 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WS-53	WS-53	WS-53	WS-53	WS-53	WSB-01	WSB-01	WSB-01	WSB-01	WSB-01	WSB-02	WSB-02	WSB-02	WSB-02	WSB-03
Sample Name:	WS53-S-0.5	WS53-S-11	WS53-S-18.5	WS53-S-2.0	WS53-S-37	WSB01-S-0.5	WSB01-S-11.0	WSB01-S-19.0	WSB01-S-2.0	WSB01-S-37.0	WSB02-S-0.5	WSB02-S-11.0	WSB02-S-2.0	WSB02-S-34.5	WSB03-S-0.5
Collection Date:	12/17/2018	12/17/2018	12/17/2018	12/17/2018	12/17/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/26/2018	11/26/2018	11/26/2018	11/26/2018	11/29/2018
Collection Depth (ft bgs):	0.5	11	18.5	2	37	0.5	11	19	2	37	0.5	11	2	34.5	0.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	156	111	1,230 J	220	1.22 UJK	133	249	15.5	116	3.77 J	595	171 J+	326	1.76 J	708
1,2,3,4,6,7,8-HpCDF	29	39	97.9 U	40.1	0.0986 U	23.2	52.9	2.27 J	20.2	0.354 UJ	119	19.9	56.7	0.296 UJ	131
1,2,3,4,7,8,9-HpCDF	2.3 J	2.5 J	157 U	2.7 J	0.154 U	1.67 J	3.11 J	0.422 J	1.73 J	0.106 U	6.15	1.63 J	4.01 J	0.187 U	7.29
1,2,3,4,7,8-HxCDD	1.18 J	0.9 J	121 U	1.37 UJK	0.165 U	1.52 J	1.8 J	0.203 U	0.747 UJK	0.148 U	5.16	1.33 J	3.77 J	0.185 U	8.4
1,2,3,4,7,8-HxCDF	5.21	6.41	94.3 U	3.48 UJK	0.0756 U	2.79 J	3.77 J	1.84 J	2.59 J	0.137 J	12.2	4.6 UJK	5.31	0.122 U	12
1,2,3,6,7,8-HxCDD	5.76	3.96 J	124 U	8.68	0.157 U	5.35	9.53	0.375 UJK	4.22 J	0.165 UJK	21.1	4.63 J	15.6	0.179 U	27
1,2,3,6,7,8-HxCDF	2.15 J	5.98	96.9 U	1.9 J	0.0773 U	1.56 J	2.12 J	0.426 J	1.42 J	0.102 U	5.48	1.71 J	2.74 J	0.13 U	5.57
1,2,3,7,8,9-HxCDD	3.17 J	2.08 UJK	127 U	5.15	0.167 U	2.53 J	5.29	0.229 UJK	1.96 UJK	0.393 J	13.3	1.14 J	16.3	0.226 UJK	19.7
1,2,3,7,8,9-HxCDF	0.89 J	1.04 J	111 U	1 J	0.109 U	0.75 J	0.962 J	0.322 UJK	0.709 UJK	0.143 U	2.38 J	0.854 UJ	1.69 J	0.17 U	2.95 UJK
1,2,3,7,8-PeCDD	0.882 J	0.536 J	58.3 U	1.13 UJK	0.133 U	0.873 J	1.35 UJK	0.125 U	0.804 J	0.107 U	2.75 J	1.05 J	2.38 J	0.206 U	3.35 J
1,2,3,7,8-PeCDF	1.76 J	3.9 J	53.3 U	0.928 J	0.149 U	2.42 J	0.94 J	1.14 J	0.996 J	0.101 U	3.6 J	2.63 J	3.62 J	0.116 U	4.33 J
2,3,4,6,7,8-HxCDF	1.97 J	2.33 J	103 U	2.64 J	0.0781 U	1.83 J	2.92 J	0.157 U	1.88 J	0.105 U	6.01 UK	1.22 J	3.81 J	0.131 U	7.15
2,3,4,7,8-PeCDF	1.75 J	2.47 J	45.8 U	2.02 J	0.14 U	1.86 J	2.48 J	0.58 UJK	1.54 UJK	0.0862 U	5.24	2.13 J	3.8 J	0.105 U	6.74
2,3,7,8-TCDD	0.636 J	0.514 J	102 U	0.841 UJK	0.426 U	0.455 J	0.916 J	0.109 U	0.521 UJK	0.0914 U	1.33	0.409 U	1.17 UK	0.171 U	2.77
2,3,7,8-TCDF	1.45	2.16	78.5 U	1.37	0.394 U	1.42 UK	1.4	0.955 J	1.12	0.134 U	3.6	2.61	2.88	0.234 U	4.48
OCDD	2,020	1,810	5,830	3040	7.16 J	1,360	2,740	119	1,190	35.1	6,500 J	1,530	3,330	11.2	7,630 J
OCDF	69.4	71.2	294 J	102	0.251 U	54.3	158	5.56 J	45.4	0.221 U	299	55.7	149	0.26 U	369
Dioxin/Furan TEQ[a][2]	6.77 JT	6.48 JT	116 JT	7.41 JT	0.428 JT	5.74 JT	9.74 JT	0.75 JT	4.23 JT	0.208 JT	21.9 JT	5.89 JT	14.9 JT	0.227 JT	27.9 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WSB-03	WSB-03	WSB-03	WSB-03	WSB-03	WSB-04	WSB-04	WSB-04	WSB-04	WSB-04	WSB-05	WSB-05	WSB-05	WSB-05	WSB-05
Sample Name:	WSB03-S-14.0	WSB03-SM-16.5	WSB03-S-2.0	WSB03-S-31.0	WSB03-S-7.5	WSB04-S-0.5	WSB04-S-11.0	WSB04-S-16.0	WSB04-S-2.0	WSB04-S-31.0	WSB05-S-0.5	WSB05-S-10.5	WSB05-S-16.0	WSB05-S-2.0	WSB05-S-23.0
Collection Date:	11/29/2018	11/29/2018	11/29/2018	11/29/2018	11/29/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/29/2018	11/29/2018	11/29/2018	11/29/2018	11/29/2018
Collection Depth (ft bgs):	14	16.5	2	31	7.5	0.5	11	16	2	31	0.5	10.5	16	2	23
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	7.85	210 J	367	0.84 J	1,340	161	190	276	1370 J	2.37 J	38.2	366	46.6 J	133	830 J
1,2,3,4,6,7,8-HpCDF	1.62 J	89.6 J	64.6	0.2 UJ	179	24.4	80	189	216 UJK	0.494 UJ	7.16	68.4	8.52 UJK	23.1	32.6 J
1,2,3,4,7,8,9-HpCDF	0.358 U	17.6 U	4.74 J	0.25 U	7.87 J	1.73 J	5.95	33.9 J	83.9 U	0.3 U	0.676 J	4.52 J	4.02 U	1.53 J	4.79 U
1,2,3,4,7,8-HxCDD	0.66 U	11.1 U	2.95 J	0.196 U	4.6 J	0.913 J	1.56 J	5.37 U	125 U	0.281 U	0.407 UJK	2.17 J	4.41 U	1.59 UJK	7.27 U
1,2,3,4,7,8-HxCDF	1.37 J	29.3 UJ	5.7	0.148 U	27 J	4.63 J	22.3	150	49.3 U	0.209 U	1.37 J	7.1	4.43 UJK	2.64 UJK	5 U
1,2,3,6,7,8-HxCDD	0.601 U	10 U	16.8	0.195 U	17.5 J	7.35	7.59	4.95 U	138 U	0.265 U	1.73 J	14.2	4.07 U	5.56	14.7 UJK
1,2,3,6,7,8-HxCDF	0.445 UJK	96.1 J	2.78 J	0.148 U	12.7 J	1.89 J	8.63	44.1 J	54 U	0.235 U	0.599 UJ	3.87 J	4.25 U	1.61 J	4.86 U
1,2,3,7,8,9-HxCDD	0.654 U	11 U	11.6	0.204 U	8.73 UJK	1.96 J	3.87 UJK	5.35 U	137 U	0.283 U	1.82 J	6.24	4.41 U	3.23 J	7.31 U
1,2,3,7,8,9-HxCDF	0.294 U	15 UJ	1.44 J	0.228 U	6.01 J	0.733 UJ	3.38 J	23.5 J	80.6 UJK	0.285 U	0.311 U	1.73 J	5.82 U	0.628 UJK	5.87 U
1,2,3,7,8-PeCDD	0.213 U	11.9 U	3.36 J	0.178 U	3.06 UJK	1.68 J	1.45 J	4.91 U	32.5 U	0.358 U	0.441 UJK	3.06 J	3.92 U	0.988 J	6.81 U
1,2,3,7,8-PeCDF	0.967 J	25.7 UJ	1.93 J	0.166 U	16 J	1.8 J	13.1	93.1	52.5 UJ	0.273 U	1.37 J	2.75 J	3.72 U	1.15 J	7.03 U
2,3,4,6,7,8-HxCDF	0.302 U	10.6 U	3.99 J	0.148 U	7.14 J	1.54 J	4.83 J	16.6 UJK	55.7 U	0.231 U	0.682 J	5.06	4.27 U	1.52 J	4.94 U
2,3,4,7,8-PeCDF	0.595 J	13.3 J	3.31 J	0.146 U	11.5 J	2.27 J	8.52	61.6	26.2 U	0.255 U	0.631 UJK	4.33 J	3.32 U	1.34 J	6.06 U
2,3,7,8-TCDD	0.294 U	9.13 U	1.08	0.24 U	4.1 U	0.491 J	0.866 J	6.84 U	44.2 U	0.227 U	0.192 U	0.954 J	3.66 U	0.398 J	6.42 U
2,3,7,8-TCDF	1.39	25.9 J	2.86 UK	0.329 U	9.62 J	2.15	8.1	77	54.1 U	0.367 U	0.654 J	2.72	5.99 U	0.982 J	9.57 U
OCDD	82.6	2,000	3,900	5.2 UJ	7,370	1,620	2,670	4,290	10,100	16.9	486	4,310 J	365	2,030	5,250 J
OCDF	3.78 J	91.6 J	185	0.331 U	354	63.5	139	211	938 J	0.304 U	18.5	190	21.9 UJK	62.1	220 J-
Dioxin/Furan TEQ[a][2]	0.898 JT	31.7 JT	15.9 JT	0.248 JT	34.1 JT	7.4 JT	14.9 JT	63.9 JT	61.2 JT	0.387 JT	1.72 JT	15.4 JT	4.5 JT	5.58 JT	17.1 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WSB-05	WSB-06	WSB-06	WSB-06	WSB-06	WSB-06	WSB-07	WSB-07	WSB-07	WSB-07	WSB-07	WSB-08	WSB-08	WSB-08	WSB-08
Sample Name:	VSB05-S-23.0-DU	WSB06-S-0.5	WSB06-S-12.5	WSB06-S-19.0	WSB06-S-2.0	WSB06-S-32.5	WSB07-S-0.5	WSB07-S-11.0	WSB07-S-16.0	WSB07-S-2.0	WSB07-S-21.0	WSB08-S-0.5	WSB08-S-11.0	WSB08-S-14.3	WSB08-S-2.0
Collection Date:	11/29/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/28/2018	11/19/2018	11/19/2018	11/19/2018	11/19/2018
Collection Depth (ft bgs):	23	0.5	12.5	19	2	32.5	0.5	11	16	2	21	0.5	11	14.3	2
Sample Type:	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	5,130 J	1.3 J	107	878	2.26 J	2.07 UJK	94	0.961 J	1.74 UJK	48.1	0.471 U	19.5	4.61 J	25.2	65.1
1,2,3,4,6,7,8-HpCDF	243 J	0.54 UJ	39.8	190	0.482 UJ	1.17 J	17.8	0.401 UJ	0.462 UJ	10.3	0.144 U	4.64 J	0.783 J	2.63 J	13.4
1,2,3,4,7,8,9-HpCDF	55.3 U	0.479 U	4.77 J	11.8	0.478 U	0.314 U	1.41 UJK	0.344 U	0.428 U	1.1 U	0.251 U	0.539 J	0.152 U	0.354 J	0.769 J
1,2,3,4,7,8-HxCDD	65.3 U	0.298 U	1.22 J	4.97 J	0.292 U	0.232 U	1.39 UJK	0.441 U	0.344 U	0.838 U	0.227 U	0.298 J	0.176 U	0.239 U	0.643 J
1,2,3,4,7,8-HxCDF	67.7 U	0.197 U	30.8	12.4	0.2 U	1.7 J	2.3 UJK	0.187 U	0.801 J	0.918 J	0.141 U	2.16 J	0.254 J	1.51 J	1.47 J
1,2,3,6,7,8-HxCDD	74 J	0.302 U	4.35 J	21.8	0.268 U	0.228 U	4.64 J	0.429 U	0.33 U	2.69 J	0.205 U	0.943 J	0.164 U	0.56 J	2.62 J
1,2,3,6,7,8-HxCDF	72.3 U	0.197 U	9.51	11	0.195 U	0.472 J	1.02 UJK	0.192 U	0.398 J	0.38 U	0.133 U	0.611 J	0.12 U	0.451 J	0.668 J
1,2,3,7,8,9-HxCDD	65.8 U	0.312 U	2.64 J	10.1	0.29 U	0.258 UJK	3.1 J	0.453 U	0.35 U	3.02 UJK	0.221 U	0.489 J	0.176 U	0.29 UJK	1.84 J
1,2,3,7,8,9-HxCDF	123 U	0.31 U	5.8	3.27 J	0.308 U	0.368 UJK	0.865 U	0.314 U	0.39 U	0.576 U	0.215 U	0.286 UJK	0.276 UJ	0.555 UJ	0.378 UJK
1,2,3,7,8-PeCDD	208 U	0.181 U	0.817 J	3.46 J	0.156 U	0.191 U	0.767 U	0.16 U	0.248 U	0.47 U	0.231 U	0.239 UJK	0.101 U	0.136 UJK	0.386 UJK
1,2,3,7,8-PeCDF	161 U	0.183 U	22.4	2.59 J	0.129 U	1.25 J	0.917 UJK	0.178 U	0.266 J	0.746 J	0.199 U	0.825 J	0.172 UJ	0.864 J	0.724 J
2,3,4,6,7,8-HxCDF	68.4 U	0.197 U	4.52 J	10	0.208 U	0.236 UJK	1.24 J	0.197 U	0.322 U	0.75 J	0.14 U	0.404 J	0.117 U	0.206 U	0.694 J
2,3,4,7,8-PeCDF	156 U	0.153 U	11.7	6.42	0.114 U	0.648 UJK	1.22 J	0.147 U	0.188 J	0.928 J	0.161 U	0.481 J	0.107 U	0.56 J	0.787 J
2,3,7,8-TCDD	92.8 U	0.248 U	0.299 U	2.21 UK	0.258 U	0.374 U	0.581 U	0.234 U	0.276 U	0.36 U	0.253 U	0.181 UJK	0.132 U	0.153 U	0.255 J
2,3,7,8-TCDF	136 U	0.425 U	8.12	1.85	0.336 U	0.906 J	1.12 U	0.34 U	0.404 U	0.806 U	0.403 U	0.768 J	0.212 UJK	0.607 UJK	0.528 J
OCDD	33,100 J	11.9 U	1570	15,900 J	21.4	12.7 U	1130	9.04 UJ	36.3	600	1.72 UJ	211	44	221	727
OCDF	1,330 J-	0.596 U	85.6	1,190	0.662 J	1.7 J	46.7	0.526 U	0.729 U	27.3	0.505 U	10.3	1.36 J	7.21 J	33.3
Dioxin/Furan TEQ[a][2]	279 JT	0.261 JT	14 JT	31.1 JT	0.287 JT	0.732 JT	3.5 JT	0.244 JT	0.471 JT	1.98 JT	0.253 UJT	1.29 JT	0.225 JT	0.949 JT	2.77 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WSB-08	WSB-09	WSB-09	WSB-09	WSB-09	WSB-09	WSB-09	WSB-10	WSB-10	WSB-10	WSB-10	WSB-10	WSB-11	WSB-11	WSB-11
Sample Name:	WSB08-S-34.0	WSB09-S-0.5	WSB09-S-17.0	WSB09-S-2.0	WSB09-S-27.5	WSB09-S-27.5-DU	WSB09-S-7.5	WSB10-S-0.5	WSB10-S-11.0	WSB10-S-19.0	WSB10-S-2.0	WSB10-S-24.5	WSB11-S-0.5	WSB11-S-11.0	WSB11-S-19.0
Collection Date:	11/19/2018	12/3/2018	12/3/2018	12/3/2018	12/3/2018	12/3/2018	12/3/2018	11/27/2018	11/27/2018	11/27/2018	11/27/2018	11/27/2018	11/30/2018	11/30/2018	11/30/2018
Collection Depth (ft bgs):	34	0.5	17	2	27.5	27.5	7.5	0.5	11	19	2	24.5	0.5	11	19
Sample Type:	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	1.21 J	13.5	1,610 J	272	1.65 J	0.461 UJ	203	92.2	140	0.587 UJK	116	1.16 J	316	458	189
1,2,3,4,6,7,8-HpCDF	0.259 UJ	2.52 J	58.2 J	38.3	0.331 UJ	0.214 UJ	41.8	16.6	38.4	0.237 U	21.6	0.296 UJ	70.6	107	68.5
1,2,3,4,7,8,9-HpCDF	0.138 U	0.309 U	18.5 U	3.68 J	0.0667 U	0.0767 U	3.28 UJK	1.26 J	2.89 J	0.346 U	1.65 J	0.385 U	4.34 J	7.47	15.3 J
1,2,3,4,7,8-HxCDD	0.131 U	0.295 U	18.3 U	2.07 J	0.0819 J	0.072 U	1.47 J	0.815 J	1.28 J	0.276 U	1.24 J	0.479 U	2.75 J	3.66 J	4.31 U
1,2,3,4,7,8-HxCDF	0.0766 U	0.44 UJ	15.8 J	3.2 J	0.156 UJ	0.16 UJ	2.95 J	2.23 J	2.92 J	0.177 U	3.12 J	0.189 U	6.91	8.18	80.8
1,2,3,6,7,8-HxCDD	0.13 U	0.735 UJK	16.1 U	11.1	0.121 J	0.087 UJK	7.58	4.08 J	5.7	0.27 U	5.12	0.469 U	13.2	18.6	11.9 J
1,2,3,6,7,8-HxCDF	0.0977 UJK	0.187 UJ	12.8 U	6.21	0.0838 UJ	0.0949 UJ	5.91	1.07 J	4.83 J	0.177 U	1.51 J	0.191 U	4.55 J	12	26.4 J
1,2,3,7,8,9-HxCDD	0.197 UJK	0.484 J	17.7 U	5.61	0.22 UJ	0.115 UJ	3.75 J	3.08 J	3.35 UJK	0.284 U	4.14 J	0.493 U	6.44	8.4	8 J
1,2,3,7,8,9-HxCDF	0.13 UJK	0.161 U	15.8 U	1.55 UJK	0.078 UJ	0.087 UJ	1.07 J	0.492 J	1.15 J	0.267 U	0.731 UJK	0.276 U	1.79 J	2.76 J	11.5 UJK
1,2,3,7,8-PeCDD	0.136 U	0.178 U	28.2 U	1.97 J	0.183 UJ	0.132 UJ	1.43 UJK	0.651 UJK	0.889 J	0.149 U	0.717 UJK	0.266 U	1.81 J	3.32 J	4.07 UJK
1,2,3,7,8-PeCDF	0.108 U	0.192 U	18.6 U	1.98 J	0.16 UJ	0.172 UJ	1.57 J	1.79 J	1.31 J	0.157 U	1.03 J	0.234 U	5.11 J	3.59 J	59.7
2,3,4,6,7,8-HxCDF	0.0827 U	0.229 UJK	9.65 U	3.66 J	0.0546 U	0.0573 UJK	3.07 J	1.44 J	2.34 J	0.173 U	1.59 J	0.197 U	4.16 J	6.83	17.8 UJK
2,3,4,7,8-PeCDF	0.0891 U	0.189 J	20.8 U	2.34 J	0.0799 UJ	0.0731 UJ	2.25 J	1.31 J	2.05 J	0.136 U	1.2 J	0.195 U	4.29 J	5.29	49.1 J
2,3,7,8-TCDD	0.134 U	0.176 U	33.7 U	0.82 J	0.0942 U	0.0957 U	0.505 UJK	0.223 U	0.616 UJK	0.348 U	0.422 U	0.352 U	1.42	1.7	2.68 J
2,3,7,8-TCDF	0.156 U	0.263 U	33.7 U	1.88	0.265 UJ	0.158 UJ	1.41	0.966 J	1.16	0.455 U	0.84 U	0.566 U	2.95	3.36	46
OCDD	7.55 UJ	125	8,980	4420 J	11.9	2.35 J	3330	1170	2040	7.35 UJ	1420	9.04 UJ	3,750	6,240 J	1,470
OCDF	0.265 U	4.79 J	320 J	108	0.218 J	0.126 U	102	39.8	78.6	0.507 U	52	0.586 U	163	241	130
Dioxin/Furan TEQ[a][2]	0.148 JT	0.482 JT	54.8 JT	11.6 JT	0.223 JT	0.133 JT	8.35 JT	3.98 JT	6.55 JT	0.348 UJT	4.61 JT	0.364 JT	14 JT	20.8 JT	43.8 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WSB-11	WSB-11	WSB-11	WSB-12	WSB-12	WSB-12	WSB-12	WSB-12	WSB-13	WSB-13	WSB-13	WSB-13	WSB-13	WSB-14	WSB-14
Sample Name:	WSB11-S-2.0	WSB11-SM-22.5	WSB11-S-32.0	WSB12-S-0.5	WSB12-S-11.0	WSB12-S-11.0-DU	WSB12-S-2.0	WSB12-S-32.0	WSB13-S-0.5	WSB13-S-11.0	WSB13-S-19.0	WSB13-S-2.0	WSB13-S-42.5	WSB14-S-0.5	WSB14-S-11.5
Collection Date:	11/30/2018	11/30/2018	11/30/2018	11/26/2018	11/26/2018	11/26/2018	11/26/2018	11/26/2018	11/27/2018	11/27/2018	11/27/2018	11/27/2018	11/27/2018	12/3/2018	12/3/2018
Collection Depth (ft bgs):	2	22.5	32	0.5	11	11	2	32	0.5	11	19	2	42.5	0.5	11.5
Sample Type:	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)															
1,2,3,4,6,7,8-HpCDD	82.6	895	1.86 J	52.1	2.17 J	1.49 J	498	1.41 J	114	103	3.28 J	435	4.76 J	180	389
1,2,3,4,6,7,8-HpCDF	17.3	21.7 J	0.765 UJ	10.2	0.894 J	0.712 J	93.2	0.45 UJ	29.8	47.5	0.471 UJ	91.7	0.595 UJ	32	142
1,2,3,4,7,8,9-HpCDF	1 J	2.36 J	0.462 U	0.766 J	0.245 U	0.345 U	6.04	0.287 U	3.02 J	4.42 J	0.252 U	5.9	0.225 U	2.2 J	19.9
1,2,3,4,7,8-HxCDD	0.674 UJK	9.28 J	0.209 U	0.658 J	0.288 U	0.324 U	3.76 J	0.368 U	1.31 J	0.937 UJK	0.313 U	3.44 J	0.328 U	1.66 J	3.08 J
1,2,3,4,7,8-HxCDF	1.58 J	4.6 J	0.259 UJ	1.56 J	0.197 J	0.3 J	7.41	0.184 U	10.5	15.2	0.225 UJK	11.5	0.231 UJK	2.86 J	102
1,2,3,6,7,8-HxCDD	3.44 J	42.8 J	0.217 U	2.33 J	0.276 U	0.3 U	21.9	0.346 U	4.46 J	4.11 J	0.301 U	16.7	0.342 U	6.86	16
1,2,3,6,7,8-HxCDF	1.03 J	3.3 UJK	0.217 UJ	0.658 UJK	0.186 J	0.239 UJK	3.76 J	0.196 U	3.26 J	5.72	0.211 U	6.11	0.221 UJK	1.84 J	26.7
1,2,3,7,8,9-HxCDD	2.77 J	40.2 J	0.221 U	1.76 J	0.294 U	0.324 U	10.4	0.37 U	4.27 J	2.12 J	0.318 U	9.14	0.788 J	3.13 J	8.5
1,2,3,7,8,9-HxCDF	0.419 UJ	3.52 J	0.202 U	0.397 UJK	0.241 U	0.283 U	2.21 J	0.291 U	1.84 J	2.66 J	0.34 U	2.41 J	0.229 U	0.885 J	10.6
1,2,3,7,8-PeCDD	0.564 J	9.12 J	0.204 U	0.248 U	0.176 U	0.245 U	3.1 J	0.206 U	0.952 J	0.758 UJK	0.205 U	2.29 J	0.217 U	1.21 J	3.01 J
1,2,3,7,8-PeCDF	0.773 UJ	3.46 J	0.168 U	0.644 UJK	0.168 U	0.224 U	3.12 J	0.252 U	6.27 UK	8.89	0.221 U	5.27	0.225 UJK	1.03 UJ	41.3
2,3,4,6,7,8-HxCDF	1.09 J	2.61 UJK	0.148 U	0.658 UJK	0.169 U	0.185 U	5.47	0.199 U	2.43 J	3.26 UJK	0.221 U	5.86	0.165 U	2.16 J	10.7
2,3,4,7,8-PeCDF	0.977 J	4.05 J	0.165 U	0.79 UJK	0.137 U	0.194 U	4.41 J	0.21 U	4.1 J	5.55	0.188 U	5.57	0.172 U	1.72 J	22
2,3,7,8-TCDD	0.368 UJK	4.63 U	0.247 U	0.22 U	0.169 U	0.292 U	1.82	0.269 U	1.19	0.597 UJK	0.187 U	1.52	0.207 U	0.475 J	2.12
2,3,7,8-TCDF	0.43 U	6.1 U	0.29 U	0.621 J	0.217 U	0.41 U	2.87	0.366 U	3.7	6.17	0.232 U	3.86	0.289 U	1.3	18.2
OCDD	1,050	3460	9.07 J	550	16.5 J	9.18 J	5,720 J	4.87 J	1,410	1,420	18.8	6710 J	29.3	3120	5,550 J
OCDF	40.2	13.3 J	0.375 U	23	1.09 UJ	0.74 U	250	0.529 U	72.2	102	0.439 U	240	0.402 U	71.7	283
Dioxin/Furan TEQ[(a)(2)]	3.55 JT	35.3 JT	0.268 JT	1.74 JT	0.25 JT	0.347 JT	19.9 JT	0.285 JT	8.65 JT	8.29 JT	0.243 JT	19 JT	0.352 JT	7.4 JT	39.8 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU						
Location:	WSB-14	WSB-14	WSB-14	WSB-15	WSB-15	WSB-15	WSB-15
Sample Name:	WSB14-S-17.0	WSB14-S-2.0	WSB14-S-29.5	WSB15-S-0.5	WSB15-S-11.0	WSB15-S-18.5	WSB15-S-2.0
Collection Date:	12/3/2018	12/3/2018	12/3/2018	11/19/2018	11/19/2018	11/19/2018	11/19/2018
Collection Depth (ft bgs):	17	2	29.5	0.5	11	18.5	2
Sample Type:	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxin/Furans (pg/g)							
1,2,3,4,6,7,8-HpCDD	276	120	2.5 J	52.3	32 J	2.21 J	127
1,2,3,4,6,7,8-HpCDF	210	22.6	0.522 UJ	8.9	2.84 J	0.155 UJ	24.9
1,2,3,4,7,8,9-HpCDF	24.5 J	2.24 UJK	0.23 U	0.836 UJK	5.05 U	0.0806 U	1.62 J
1,2,3,4,7,8-HxCDD	3.86 U	0.936 UJK	0.298 U	0.524 J	4.05 U	0.106 U	1.15 J
1,2,3,4,7,8-HxCDF	102	1.8 J	0.148 UJ	1.33 J	2.25 U	0.056 U	2.36 J
1,2,3,6,7,8-HxCDD	8.67 UJK	4.75 J	0.278 U	1.82 J	4.19 U	0.107 U	4.48 J
1,2,3,6,7,8-HxCDF	34.8 J	4.16 J	0.121 U	0.656 J	2.61 U	0.058 U	1.46 J
1,2,3,7,8,9-HxCDD	4.41 J	2.62 UJK	0.477 UJK	1.48 J	4.28 U	0.2 J	2.03 J
1,2,3,7,8,9-HxCDF	15.6 J	0.825 UJ	0.171 U	0.346 J	2.33 U	0.0798 U	0.615 J
1,2,3,7,8-PeCDD	3.39 UJK	1.06 UJK	0.144 U	0.337 UJK	3.24 U	0.0794 U	0.604 J
1,2,3,7,8-PeCDF	73.1	1.37 UJK	0.158 UJ	0.422 UJ	2.19 U	0.0804 U	1.09 J
2,3,4,6,7,8-HxCDF	16.2 J	2.28 J	0.128 U	0.774 J	2.86 U	0.0584 U	2 J
2,3,4,7,8-PeCDF	39.5 J	1.5 J	0.118 U	0.722 UJK	1.93 U	0.0681 U	1.89 J
2,3,7,8-TCDD	1.93 U	0.51 UJK	0.151 U	0.342 UJK	4.17 U	0.147 J	0.543 J
2,3,7,8-TCDF	45.6	1.06	0.19 U	0.582 J	5.72 U	0.155 U	1.37
OCDD	3,900	2,150	28.1	603	299	17.8	1,470
OCDF	224	51.4	0.265 U	24.7	11 U	0.146 U	56
Dioxin/Furan TEQ[(a)(2)]	45.6 JT	5 JT	0.184 JT	1.89 JT	4.61 JT	0.274 JT	5.29 JT

Table 2
Summary of Soil Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Notes

-- = no data, not provided, or not analyzed.
AJT = TEQ calculated with incomplete set of dioxin and furan congener results and is an estimated value.
FD = field duplicate sample.
J = result is estimated.
J+ = result is estimated, but the result may be biased high.
J- = result is estimated, but the result may be biased low.
JK = result is estimated and an estimated maximum potential value.
JT = result is estimated and calculated.
K = result is an estimated maximum potential concentration.
MGP = manufactured gas plant.
N = result is presumptively identified.
N-P = field sample or parent field sample.
NJ = result is presumptively identified and an estimated value.
pg/g = picograms per gram.
R = resullt is rejected.
T = result is calculated.
TEF = toxic equivalence factor.
TEQ = toxicity equivalence.
U = result is non-detect at the estimated detection limit or method reporting limit.
UJ = result is non-detect with an estimated detection limit.
UJK = result is non-detect, estimated, and with an estimated detection limit.
UJT= result is non-detect, with an estimated detection limit, and calculated.
UK = result is non-detect and an estimated maximum potential concentration.
UT = result is non-detect and calculated.
[a]Dioxin/furan TEQs are calculated as the sum of each congener concentration multiplied by the corresponding TEF value. Non-detect congeners are also multiplied by one-half. When all of the congeners are non-detect in a given sample, the reported TEQ value is the highest product resulting from multiplying each congener detection limit by the corresponding TEF value.

References

[1]Sample information and results obtained from the following documents:
AMEC. 2010. *RI/SCE Report, RP - Portland Site, Portland, Oregon* . AMEC Earth & Environmental, Inc. November 19.
ERM. 2010. *Data gaps investigation report. Arkema, Inc. Facility. Portland, Oregon* . Environmental Resources Management. June.
Golder. 2018. *Feasibility Study Data Gaps Report, Former Rhone-Poulenc Site, Portland, Oregon* . Golder Associates, Inc. December.
MFA. 2023. *Siltronic Operable Unit Remedial Investigation Data Summary Report.* Maul Foster Alongi, Inc. March 31.
[2]Van den Berg, M. et al. 1998. "Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife." Environmental Health Perspectives. 106 (12):775–792.

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	ARK-01	ARK-01	ARK-01	ARK-02	ARK-02	ARK-03	ARK-03	ARK-03	ARK-03	ARK-04	ARK-04	ARK-04	ARK-05	ARK-05	ARK-05
Sample_Date:	8/15/2005	8/16/2005	8/16/2005	8/19/2005	8/22/2005	8/22/2005	8/23/2005	8/23/2005	9/9/2005	8/12/2005	8/12/2005	8/15/2005	8/17/2005	8/17/2005	9/8/2005
Collection Depth (ft bgs):	10-15	28.5-31.5	50-54	76-80	36-40	76-80	22-26	54-58	90-102.5	10-15	44-47	33-36	18-22	37-41	62-67.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	10,600 J	26 J	252 J	493 J	282 J	773 J	8.49 J	724 J	110	164 J	21.7 J	146 J	14.8 J	153 J	1370
1,2,3,4,6,7,8-HpCDF	2,870 J	0.949 J	1.82 J	64.9 J	8.8 J	280 J	2.14 J	2.4 J	17.6 J	101 J	8.79 J	6.46 J	13.6 J	21.5 J	249
1,2,3,4,7,8,9-HpCDF	236 J	1.06 UJ	0.972 UJ	10 J	1.41 U	52.9 J	1.02 UJ	0.848 UJ	3.58 J	3.94 J	0.788 J	1.05 J	3.35 J	7.22 J	38.3 J
1,2,3,4,7,8-HxCDD	49.6 J	0.647 J	6.68 J	9.26 J	5.72 J	13 J	0.865 UJ	20.1 J	2.14 J	1.07 U	0.899 UJ	3.43 J	3.05 J	3 J	25.9 J
1,2,3,4,7,8-HxCDF	777 J	1.48 UJ	0.69 U	47.7 J	9.68 J	316 J	1.64 J	1.12 J	13.5 J	6.05 J	3.32 J	7.28 J	5.09 J	29.2 J	136
1,2,3,6,7,8-HxCDD	345 J	1.23 J	11.6 J	22.3 J	13.4 J	35.7 J	0.53 J	36.6 J	5.34 J	5.44 J	1.08 J	6.85 J	3.02 J	7.68 J	64.7
1,2,3,6,7,8-HxCDF	267 J	1.38 UJ	0.521 J	14.5 J	2.88 J	89.6 J	0.535 J	1.03 U	4.3 J	4.88 J	1.17 J	2.01 J	4.32 J	8.92 J	48.6
1,2,3,7,8,9-HxCDD	152 J	2.75 J	27 J	40.7 J	33.6 J	59.3 J	0.781 J	98.9 J	9.94 J	2.93 J	0.853 J	17.8 J	3.43 J	11.6 J	122
1,2,3,7,8,9-HxCDF	17.5 J	1.1 UJ	1.01 UJ	1.21 J	1.01 UJ	5.77 J	1.06 UJ	0.88 UJ	0.735 U	1.15 UJ	1.1 UJ	1.06 UJ	3.73 J	0.773 J	4.12 J
1,2,3,7,8-PeCDD	30.1 J	0.541 U	2.56 J	4.58 J	3.33 J	7.29 J	0.769 UJ	8.72 J	1.65 U	0.619 U	0.8 UJ	1.8 J	3.28 J	1.97 J	19.9 J
1,2,3,7,8-PeCDF	349 J	1.45 UJ	0.627 J	27.7 J	5.71 J	211 J	0.906 J	0.756 J	7.46 J	2.41 J	1.93 UJ	4 J	4.54 J	10.7 J	65.2
2,3,4,6,7,8-HxCDF	72.7 J	1.33 UJ	1.22 UJ	3.99 J	0.92 J	19.2 J	1.28 UJ	1.06 UJ	1.44 U	2.24 J	1.33 UJ	0.657 J	1.93 J	2.69 J	17 J
2,3,4,7,8-PeCDF	158 J	1.37 UJ	0.691 U	13.6 J	2.49 J	84.7 J	0.844 J	0.662 J	4.23 J	1.96 UJ	1.25 J	2.79 J	3.06 UJ	7.64 J	39.4 J
2,3,7,8-TCDD	17.8 J	2.21 J	2.3 U	1.68 UJ	1.97 UJ	2.43 J	0.461 UJ	1.73 J	3.47 J	0.899 U	0.48 UJ	0.461 UJ	0.984 U	1 U	7.74 J
2,3,7,8-TCDF	1170	0.45 UJ	1.6 J	17.4 J	2.33 J	84.1 J	0.432 UJ	0.479 J	5.75 U	2.25 J	1.94 J	4.57 J	1.34 U	12.7 J	68.1
OCDD	127,000 J	211 J	1,760 J	4,370 J	2,240 J	8,240 J	88 J	5,050 J	1,060	3,710 J	305 J	1,120 J	215 J	1,180 J	13,100
OCDF	6,140 J	1.4 J	1.79 J	129 J	16.5 J	528 J	4.8 J	3 J	23.5 J	184 J	14.5 J	6.47 J	16.2 J	28.9 J	413
Dioxin/Furan TEQ[a][2]	568 JT	3.55 JT	12.7 JT	33.9 JT	16.7 JT	117 JT	1.53 JT	35.3 JT	11.8 JT	7.21 JT	2.42 JT	9.35 JT	7.24 JT	15.4 JT	111 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	ARK-06	ARK-06	ARK-06	ARK-06	ARK-06	ARK-07	ARK-07	ARK-07	ARK-08	ARK-08	ARK-08	ARK-09	ARK-09	ARK-09	ARK-09
Sample_Date:	8/18/2005	8/18/2005	8/18/2005	8/19/2005	9/7/2005	8/9/2005	8/9/2005	8/9/2005	8/10/2005	8/10/2005	8/10/2005	8/11/2005	8/12/2005	8/12/2005	9/6/2005
Collection Depth (ft bgs):	23-27	76-80	23-27	54-58	88-97.5	10-14	22-26	41-45	10-15	38.5-43.5	38.5-43.5	11-16	30-35	52-56	86-94
Sample Type	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.86 U	210	1.22 U	8.65 UJ	465	25.5 J	177	593 J	11.6 J	20.4 J	15.7 J	1.92 UJ	61.8 J	141 J	696
1,2,3,4,6,7,8-HpCDF	1.53 U	241	1.53 U	3.37 UJ	76.7	32.2 J	43.8 J	358 J	5.08 J	1.51 U	2.5 U	0.912 UJ	12.7 J	2.53 UJ	58.2
1,2,3,4,7,8,9-HpCDF	1.04 U	67.1	1.04 U	1.04 U	25.3 J	8.14 J	18.2 J	100 J	0.937 U	0.554 U	0.53 U	0.94 UJ	2.06 UJ	0.847 UJ	5.98 J
1,2,3,4,7,8-HxCDD	0.882 U	3.74 J	0.882 U	0.891 UJ	9.12 J	0.565 J	3.82 J	10.6 J	0.865 U	0.588 U	0.625 U	0.568 J	1.52 U	3.63 J	12.9 J
1,2,3,4,7,8-HxCDF	1.45 U	606	1.45 U	6.08 J	147	41.5 J	43.2 J	593 J	2.57 J	0.903 J	1.32 J	0.552 J	5.51 J	1.95 J	18.7 J
1,2,3,6,7,8-HxCDD	1.75 U	12.5 J	1.75 U	0.808 J	24.4 J	1.18 J	7.88 J	26 J	0.663 J	1.03 U	0.844 J	0.64 UJ	3.69 J	6.72 J	34.8 J
1,2,3,6,7,8-HxCDF	1.35 U	151	1.35 U	1.54 J	43.7 J	12.1 J	15.2 J	169 J	1.02 U	0.523 U	0.801 U	0.5 UJ	2.24 UJ	0.871 UJ	5.66 J
1,2,3,7,8,9-HxCDD	2.02 U	15 J	2.02 U	1 UJ	45.5 J	1.2 U	12.8 J	29.8 J	1.25 U	2.06 U	1.32 U	0.707 UJ	3.65 UJ	19 J	47.5
1,2,3,7,8,9-HxCDF	1.08 U	8.58 J	1.08 U	0.533 U	2.69 J	1.17 U	1.55 J	10.9 J	1.06 U	1.08 U	1.1 U	0.85 UJ	0.607 UJ	1.16 UJ	0.948 U
1,2,3,7,8-PeCDD	0.784 U	3.05 J	0.784 U	0.677 J	4.99 J	0.784 U	2.37 U	6.36 J	0.769 U	0.784 U	0.8 U	0.502 UJ	1.04 UJ	1.85 UJ	6.79 J
1,2,3,7,8-PeCDF	1.42 U	354	1.42 U	8.14 J	95.8	24.1 J	26.1 J	346 J	0.976 U	0.521 U	0.77 U	1.45 UJ	3.01 UJ	1.3 UJ	5.41 J
2,3,4,6,7,8-HxCDF	1.3 U	30.3 J	1.3 U	0.883 J	8.17 J	2.21 J	3.16 J	27.2 J	0.699 J	1.3 U	0.514 J	0.597 J	1.33 J	1.4 UJ	2.68 J
2,3,4,7,8-PeCDF	1.34 U	186	0.536 U	6.8 J	38.4 J	10 J	12.4 J	133 J	0.98 U	0.664 U	0.654 U	0.631 UJ	2.2 UJ	1.17 UJ	4.56 J
2,3,7,8-TCDD	0.47 U	6.39 J	0.668 U	0.733 UJ	1.6 U	0.59 U	1.78 U	2.07 J	0.538 U	0.47 U	0.48 U	0.507 U	1.01 U	0.799 U	1.73 U
2,3,7,8-TCDF	0.799	190	0.441 U	10.4 J	35.9	20.6	30.9	248 J	1.02 J	0.441 UJ	0.449 U	0.449 UJ	3.9 J	1.2 J	7.11 J
OCDD	14.4 U	1920	3.93 U	69.5 UJ	3690	325	1610	5610 J	126	151	141	8.84 UJ	509 J	1090 J	5250
OCDF	0.69 U	241	0.524 U	5.53 UJ	79.6 J	62.4 J	103 J	737 J	8.7 J	2.59 U	4.57 U	1.93 UJ	27.5 J	4.78 UJ	69.2 J
Dioxin/Furan TEQ[a][2]	0.864 T	183 JT	0.784 UT	5.67 JT	59.4 JT	13.1 JT	21.6 JT	183 JT	1.47 JT	1.12 JT	1.27 JT	0.679 JT	3.39 JT	6.84 JT	32.2 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	ARK-10	ARK-10	ARK-10	ARK-11	ARK-12	ARK-12	ARK-12	ARK-13	ARK-13	ARK-13	ARK-14	ARK-14	ARK-14	ARK-15	ARK-15
Sample_Date:	8/4/2007	8/4/2007	8/4/2007	8/4/2007	8/2/2007	8/2/2007	8/2/2007	8/3/2007	8/3/2007	8/3/2007	8/1/2007	8/1/2007	8/1/2007	7/31/2007	7/31/2007
Collection Depth (ft bgs):	5-10	15-20	27-32	34-39	10-15	15-20	27-32	5-10	10-15	24-29	5-10	15-20	22.5-27.5	5-10	12-17
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	13.2 J	2.94 U	2.77 U	2.89 U	157	3.03 U	3.16 U	28.8 J	107	3.12 U	3.15 U	195	2.94 U	3.04 U	3.05 U
1,2,3,4,6,7,8-HpCDF	7.45 J	2.93 U	2.77 U	2.88 U	42.4 U	3.02 U	3.15 U	15.3 J	10.7 U	3.11 U	3.14 U	9.23 U	11.2 J	11.6 J	3.04 U
1,2,3,4,7,8,9-HpCDF	3.29 U	3.14 U	2.96 U	3.09 U	4.89 U	3.24 U	3.37 U	3.21 U	3.62 U	3.33 U	3.36 U	9.88 U	3.14 U	3.25 U	3.26 U
1,2,3,4,7,8-HxCDD	2.6 U	2.48 U	2.34 U	2.44 U	3.87 U	2.56 U	2.67 U	2.54 U	4.41 J	2.63 U	2.66 U	7.82 U	2.48 U	2.57 U	2.58 U
1,2,3,4,7,8-HxCDF	11.4 J	1.03 U	0.975 U	1.02 U	33.8 J	1.07 U	1.11 U	23.5 J	3.68 J	1.09 U	7.99 J	3.25 U	1.03 U	1.07 U	1.07 U
1,2,3,6,7,8-HxCDD	1.56 U	1.49 U	1.41 U	1.47 U	7.95 J	1.54 U	1.6 U	1.53 U	6.37 J	1.58 U	1.6 U	4.69 U	1.49 U	1.54 U	1.55 U
1,2,3,6,7,8-HxCDF	1.41 U	3.65 J	1.27 U	1.32 U	9.92 J	1.38 U	1.44 U	6.14 J	1.55 U	1.42 U	1.44 U	4.22 U	1.34 U	1.39 U	1.39 U
1,2,3,7,8,9-HxCDD	1.7 U	1.62 U	1.53 U	1.6 U	11 J	1.68 U	1.75 U	1.66 U	15.4 J	1.72 U	1.74 U	22.4 J	1.62 U	1.68 U	1.69 U
1,2,3,7,8,9-HxCDF	2.67 U	2.55 U	2.4 U	2.51 U	5.79 J	2.63 U	2.74 U	2.61 U	2.94 U	2.7 U	2.73 U	8.03 U	2.55 U	2.64 U	2.64 U
1,2,3,7,8-PeCDD	2.08 U	1.98 U	1.87 U	1.95 U	3.08 U	2.04 U	2.13 U	2.03 U	3.23 J	2.1 U	2.12 U	6.23 U	1.98 U	2.05 U	2.05 U
1,2,3,7,8-PeCDF	6.32 U	3.98 U	2.44 U	2.71 U	21.6 J	2.67 U	2.78 U	12 U	2.99 U	2.74 U	2.77 U	8.15 U	2.59 U	2.68 U	2.68 U
2,3,4,6,7,8-HxCDF	2.12 U	4.02 J	1.9 U	1.98 U	3.97 J	2.08 U	2.17 U	2.07 U	2.33 U	2.14 U	2.16 U	6.36 U	2.02 U	2.09 U	2.09 U
2,3,4,7,8-PeCDF	4.58 J	3.59 J	2.05 U	2.13 U	12.6 J	2.24 U	2.33 U	7.38 J	2.51 U	2.3 U	2.33 U	6.84 U	2.17 U	2.25 U	2.25 U
2,3,7,8-TCDD	0.947 U	0.902 U	0.852 U	5.3 J	1.41 U	0.932 U	19.7	0.924 U	1.04 U	9 J	0.967 U	2.84 U	0.902 U	0.934 U	0.937 U
2,3,7,8-TCDF	0.919 U	0.875 U	0.826 U	0.861 U	14.8 U	0.904 U	0.94 U	7.92 J	1.01 U	0.928 U	10.2 J	13.8 U	0.875 U	0.906 U	0.909 U
OCDD	117	16.9 U	15.9 U	16.6 U	1330	17.4 U	18.1 U	256	590	56.8 J	18.1 U	1360	29.9 J	32.4 J	17.5 U
OCDF	2.22 U	2.12 U	2 U	2.08 U	129 U	2.19 U	2.27 U	30.1 J	18.8 U	2.24 U	2.27 U	42.6 U	19.8 J	22.6 J	2.2 U
Dioxin/Furan TEQ[a][2]	4.84 JT	3.82 JT	1.87 UT	7.25 JT	16.7 JT	2.04 UT	21.8 T	8.53 JT	8.5 JT	11.1 JT	3.94 JT	10.8 JT	2.11 JT	2.18 JT	2.05 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	ARK-15	ARK-15	ARK-15	ARK-15	ARK-15	ARK-15	GGW-010	GGW-010	GGW-013	GGW-014	GGW-015	GGW-016	GGW-016	MWA-07(I)	MWA-12I(D)
Sample_Date:	7/31/2007	7/31/2007	8/12/2007	8/12/2007	8/12/2007	8/12/2007	10/25/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	1/5/2010	1/5/2010
Collection Depth (ft bgs):	23-28	23-28	5-10	12-17	23.5-28.5	23-28	47-50	27-30	36-39	46-49	27-30	30-33	42-45	-	-
Sample Type	N-P	FD	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.14 U	3.16 U	4.55 J	3.09 U	3.2 U	3.24 U	29.2 U	29.2 U	29.2 U	29.2 U	29.2 U	29.2 U	29.2 U	6.47 U	6.11 U
1,2,3,4,6,7,8-HpCDF	3.13 U	3.15 U	6.86 J	3.08 U	7.7 J	3.23 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	13.3 U	2.52 U	2.38 U
1,2,3,4,7,8,9-HpCDF	3.36 U	3.37 U	3.28 U	3.3 U	3.42 U	3.46 U	21.2 U	21.2 U	21.2 U	21.2 U	21.2 U	21.2 U	21.2 U	2.12 U	2 U
1,2,3,4,7,8-HxCDD	2.66 U	2.67 U	3.4 J	2.61 U	2.71 U	2.74 U	21.3 U	21.3 U	21.3 U	21.3 U	21.3 U	21.3 U	21.3 U	5.05 U	4.77 U
1,2,3,4,7,8-HxCDF	1.1 U	1.11 U	1.08 U	3.65 J	7.65 J	1.14 U	25.1 U	25.1 U	25.1 U	25.1 U	25.1 U	25.1 U	25.1 U	5.24 U	4.95 U
1,2,3,6,7,8-HxCDD	1.59 U	1.6 U	3.35 J	1.57 U	1.62 U	1.64 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	3.65 U	3.45 U
1,2,3,6,7,8-HxCDF	1.43 U	1.44 U	3.91 J	1.41 U	1.46 U	1.48 U	15.5 U	15.5 U	15.5 U	15.5 U	15.5 U	15.5 U	15.5 U	5.18 U	4.89 U
1,2,3,7,8,9-HxCDD	1.74 U	1.75 U	2.69 J	1.71 U	1.77 U	1.79 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	3.41 U	3.22 U
1,2,3,7,8,9-HxCDF	2.72 U	2.74 U	3.01 J	2.68 U	2.78 U	2.81 U	29.4 U	29.4 UJ	29.4 U	29.4 U	29.4 U	29.4 U	29.4 U	4.45 U	4.21 U
1,2,3,7,8-PeCDD	2.12 U	2.13 U	3.55 J	2.08 U	2.16 U	2.18 U	17.8 U	17.8 U	17.8 U	17.8 U	17.8 U	17.8 U	17.8 U	2.73 U	2.58 U
1,2,3,7,8-PeCDF	2.77 U	2.78 U	4.23 J	2.72 U	5.67 J	2.85 U	21.7 U	21.7 U	21.7 U	21.7 U	21.7 U	21.7 U	21.7 U	3.22 U	3.04 U
2,3,4,6,7,8-HxCDF	2.16 U	2.17 U	2.74 J	2.12 U	2.2 U	2.22 U	13.4 U	13.4 U	13.4 U	13.4 U	13.4 U	13.4 U	13.4 U	6.41 U	6.06 U
2,3,4,7,8-PeCDF	2.32 U	2.33 U	3.55 J	2.28 U	2.42 J	2.39 U	13.5 U	13.5 U	13.5 U	13.5 U	13.5 U	13.5 U	13.5 U	3.8 U	3.59 U
2,3,7,8-TCDD	0.965 U	0.97 U	1.67 J	0.95 U	0.983 U	0.994 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.914 U	0.863 U
2,3,7,8-TCDF	0.936 U	0.941 U	0.917 U	0.921 U	0.954 U	0.965 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	1.63 U	1.54 U
OCDD	18.1 U	18.2 U	17.7 U	25.1 J	18.4 U	18.6 U	12.7 U	12.7 U	12.7 U	12.7 U	12.7 U	12.7 U	12.7 U	7.01 U	7.67 J
OCDF	2.26 U	2.28 U	10.7 J	2.23 U	9.72 J	2.33 U	17.2 U	17.2 U	17.2 U	17.2 U	17.2 U	17.2 U	17.2 U	5.78 U	5.46 U
Dioxin/Furan TEQ[a][2]	2.12 UT	2.13 UT	8.55 JT	2.45 JT	3.9 JT	2.18 UT	17.8 UT	17.8 UJT	17.8 UT	17.8 UT	17.8 UT	17.8 UT	17.8 UT	2.73 UT	2.58 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema															
Location:	MWA-71	MWA-72	MWA-73	RP-02-116	RP-02-167	RP-02-31	RP-02-31	RP-02-31	RP-02-31	RP-02-31	RP-02-49	RP-02-49	RP-02-49	RP-02-49	RP-02-49
Sample_Date:	1/5/2010	1/5/2010	1/5/2010	1/8/2010	1/8/2010	10/16/2000	4/18/2000	4/4/2002	5/29/2007	6/19/2001	10/16/2000	4/18/2000	4/4/2002	5/29/2007	6/19/2001
Collection Depth (ft bgs):	-	-	-	111-116	162-167	25-30	25-30	25-30	25-30	25-30	43-48	43-48	43-48	43-48	43-48
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6.18 U	6.23 U	6.34 U	6.38 U	6.16 U	3.8	8.79 U	12.5 J	2.92 U	8.46 U	2 U	8.79 U	4.4 U	2.9 U	8.5 U
1,2,3,4,6,7,8-HpCDF	2.41 U	2.43 U	2.47 U	2.49 U	2.4 U	1.9	5.36 U	7 J	2.91 U	7.46 U	1.8 U	5.36 U	2.7 U	2.89 U	7.5 U
1,2,3,4,7,8,9-HpCDF	2.03 U	2.04 U	2.08 U	2.09 U	2.02 U	0.5 U	7.55 U	6.7 U	3.12 U	7.66 U	1.6 U	7.55 U	6.13 U	3.09 U	7.7 U
1,2,3,4,7,8-HxCDD	4.83 U	4.87 U	4.95 U	4.98 U	4.81 U	0.4 U	9.43 U	4.4 J	2.47 U	11.3 U	1.3 U	9.43 U	9.62 U	2.45 U	11.4 U
1,2,3,4,7,8-HxCDF	5.01 U	5.05 U	5.14 U	5.17 U	4.99 U	2	5.32 U	7.7 UJ	1.03 U	3.4 U	2.1	5.32 U	2.4 U	1.02 U	3 U
1,2,3,6,7,8-HxCDD	3.49 U	3.52 U	3.58 U	3.6 U	3.48 U	0.4 U	6.35 U	4.9 J	1.48 U	8.46 U	1.2 U	6.35 U	8.77 U	1.47 U	8.5 U
1,2,3,6,7,8-HxCDF	4.94 U	4.99 U	5.07 U	5.1 U	4.93 U	0.3 U	3.99 U	4.1 U	1.33 U	3.68 U	0.9 U	3.99 U	1.4 U	1.32 U	3.7 U
1,2,3,7,8,9-HxCDD	3.26 U	3.29 U	3.34 U	3.37 U	3.25 U	0.4 U	7.28 U	7.9 J	1.61 U	15.3 U	1.2 U	7.28 U	8.77 U	1.6 U	15.4 U
1,2,3,7,8,9-HxCDF	4.25 U	4.29 U	4.36 U	4.39 U	4.24 U	0.3 U	6.31 U	9.4 J	2.53 U	7.86 U	1.1 U	6.31 U	10.5 U	2.51 U	7.9 U
1,2,3,7,8-PeCDD	2.61 U	2.63 U	2.68 U	2.69 U	2.6 U	0.4 U	8.73 U	4.5 U	1.97 U	5.27 U	1.1 U	8.73 U	7.92 U	1.95 U	5.3 U
1,2,3,7,8-PeCDF	3.07 U	3.1 U	3.15 U	3.17 U	3.06 U	1.2 U	6.23 U	8.5 J	2.57 U	4.28 U	0.9 U	6.23 U	2.2 U	2.55 U	4.3 U
2,3,4,6,7,8-HxCDF	6.13 U	6.18 U	6.29 U	6.33 U	6.11 U	0.3 U	4.66 U	4.1 J	2 U	5.97 U	1 U	4.66 U	6.89 U	1.99 U	6 U
2,3,4,7,8-PeCDF	3.63 U	3.66 U	3.72 U	3.75 U	3.62 U	0.3 U	6.3 U	5.6 J	2.16 U	5.57 U	0.9 U	6.3 U	2.5 U	2.14 U	5.6 U
2,3,7,8-TCDD	0.873 U	0.88 U	0.895 U	0.901 U	0.87 U	0.9	7.77 U	3.1 J	0.897 U	4.48 U	1.1 U	7.77 U	5.75 U	0.89 U	4.5 U
2,3,7,8-TCDF	1.56 U	1.57 U	1.6 U	1.61 U	1.56 U	1.9	6.89 U	6.5 J	0.87 U	7.96 U	0.9 U	6.89 U	4.25 U	0.864 U	8 UJ
OCDD	23.7 J	6.76 U	6.87 U	6.92 U	6.68 U	31.7 U	11.7 U	67 J	16.8 U	7.9 U	9.7	11.7 U	22.3 U	16.7 U	22.5
OCDF	5.53 U	5.57 U	5.67 U	5.7 U	5.51 U	4.5	14.7 U	11 U	2.1 U	31.4 U	2.3 U	14.7 U	4.3 U	2.09 U	31.6 U
Dioxin/Furan TEQ[a][2]	2.62 JT	2.63 UT	2.68 UT	2.69 UT	2.6 UT	1.75 T	8.73 UT	13.5 JT	1.97 UT	5.27 UT	1.31 T	8.73 UT	7.92 UT	1.95 UT	5.31 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema															
Location:	RP-02-49	RP-02-49	RP-02-49	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66	RP-02-66
Sample_Date:	6/19/2001	8/13/2009	9/12/2007	1/8/2010	10/16/2000	12/6/2017	3/14/2018	4/12/2004	4/13/2005	4/18/2000	4/4/2002	5/29/2007	6/19/2001	6/6/2018	8/13/2009	
Collection Depth (ft bgs):	43-48	43-48	43-48	60-65	60-65	60-65	60-65	60-65	60-65	60-65	60-65	60-65	60-65	60-65	60-65	
Sample Type	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	
Dioxins/Furans (pg/L)																
1,2,3,4,6,7,8-HpCDD	7.3 J	6.18 U	2.86 U	6.32 U	0.9 U	0.984 U	1.22 U	4.5 J	12 U	8.79 U	8.9 U	3.15 U	8.67 U	1.39 U	6.15 U	
1,2,3,4,6,7,8-HpCDF	10.6 J	2.41 U	2.85 U	2.46 U	0.6 U	1.02 U	1.3 U	2.4 J	12 U	5.36 U	8.6 U	3.14 U	5.7 J	1.04 U	2.4 U	
1,2,3,4,7,8,9-HpCDF	7.66 UJ	2.03 U	3.05 U	2.07 U	0.8 U	1.01 U	1.28 U	3.8 J	12 U	7.55 U	6.19 U	3.37 U	7.85 U	1.02 U	2.02 U	
1,2,3,4,7,8-HxCDD	5.7 J	4.83 U	2.41 U	4.93 U	0.6 U	1.12 U	1.12 U	2.9 J	12 U	9.43 U	9.71 U	2.66 U	11.6 U	1.07 U	4.8 U	
1,2,3,4,7,8-HxCDF	8.2 U	5.01 U	1 U	5.12 U	0.5 U	1.36 U	1.11 U	3.2 J	12 U	5.32 U	5.6 U	1.11 U	3.2 U	0.932 U	4.98 U	
1,2,3,6,7,8-HxCDD	6 J	3.49 U	1.45 U	3.57 U	0.6 U	1.19 U	1.19 U	3.1 J	12 U	6.35 U	3.1 U	1.6 U	8.67 U	1.08 U	3.47 U	
1,2,3,6,7,8-HxCDF	6.6 J	4.94 U	3.1 J	5.05 U	0.5 U	1.4 U	1.17 U	3 J	12 U	3.99 U	5.1 U	1.44 U	2.5 U	0.997 U	4.92 U	
1,2,3,7,8,9-HxCDD	5.6 J	3.26 U	1.58 U	3.33 U	0.6 U	1.09 U	1.15 U	3.8 J	12 U	7.28 U	8.86 U	1.74 U	15.7 U	1.1 U	3.24 U	
1,2,3,7,8,9-HxCDF	3.8 J	4.25 U	2.48 U	4.35 U	0.6 U	1.39 U	1.15 U	4.1 J	12 U	6.31 U	2.8 U	2.73 U	8.06 U	0.989 U	4.23 U	
1,2,3,7,8-PeCDD	5.9 J	2.61 U	1.92 U	2.67 U	0.5 U	1.04 U	1.29 U	3.1 U	12 U	8.73 U	4 U	2.12 U	5.41 U	1.33 U	2.6 U	
1,2,3,7,8-PeCDF	6.1 J	3.07 U	2.51 U	3.14 U	0.5 U	1.25 U	1.26 U	4.5	12 U	6.23 U	5.8	2.78 U	4.39 U	0.984 U	3.06 U	
2,3,4,6,7,8-HxCDF	6.7 J	6.13 U	1.96 U	6.27 U	0.5 U	1.31 U	1.09 U	3 J	12 U	4.66 U	2.8 U	2.16 U	2.6 J	0.915 U	6.1 U	
2,3,4,7,8-PeCDF	6.2 J	3.63 U	2.11 U	3.71 U	0.5 U	1.22 U	1.22 U	3.9	12 U	6.3 U	4.5	2.33 U	5.71 U	0.88 U	3.61 U	
2,3,7,8-TCDD	4.48 U	0.873 U	0.877 U	0.892 U	0.68 U	1.14 U	1.26 U	2.3 U	2.5 U	7.77 U	5.2 J	0.968 U	4.59 U	1.04 U	0.868 U	
2,3,7,8-TCDF	3.1 U	1.56 U	0.851 U	1.6 U	2.2	1.4 U	1.21 U	2.6 U	2.5 U	6.89 U	3 U	0.939 U	2.7 U	0.994 U	1.55 U	
OCDD	34.7 J	6.7 U	16.4 U	6.85 U	5.7	1.06 U	1.31 U	12.2 J	25 U	11.7 U	38.7 U	18.1 U	11.2 J	2.89 U	6.67 U	
OCDF	18.8 J	5.53 U	2.06 U	5.65 U	1.1 U	1.24 U	1.22 U	7.3 J	25 U	14.7 U	15.9 U	2.27 U	6.1 J	1.92 U	5.5 U	
Dioxin/Furan TEQ[a][2]	16.1 JT	2.61 UT	2.23 JT	2.67 UT	0.902 T	1.14 UT	1.29 UT	6.83 JT	12 UT	8.73 UT	10.7 JT	2.12 UT	5.73 JT	1.33 UT	2.6 UT	

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	RP-02-66	RP-02-66	RP-08-107	RP-08-107	RP-08-107	RP-08-107	RP-08-107	RP-08-23	RP-08-23	RP-08-23	RP-08-80	RP-08-80	RP-08-80	RP-09-35	RP-09-35
Sample_Date:	9/12/2007	9/18/2017	3/14/2018	5/24/2007	5/24/2007	8/13/2009	9/11/2007	5/24/2007	8/13/2009	9/11/2007	5/24/2007	8/13/2009	9/11/2007	5/30/2007	8/12/2009
Collection Depth (ft bgs):	60-65	60-65	102-107	102-107	102-107	102-107	102-107	13-23	13-23	13-23	73-79.5	73-79.5	73-79.5	25-35	25-35
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.11 U	1.18 U	1.15 U	2.95 U	3.08 U	6.21 U	2.92 U	2.95 U	6.27 U	3.13 U	3.02 U	6.19 U	3.13 U	8.39 J	288
1,2,3,4,6,7,8-HpCDF	3.1 U	1.2 U	1.29 U	2.94 U	3.07 U	2.42 U	2.91 U	2.94 U	2.45 U	3.12 U	3.01 U	2.41 U	3.12 U	3.04 U	4.76 J
1,2,3,4,7,8,9-HpCDF	3.32 U	1.19 U	1.27 U	3.15 U	3.29 U	2.04 U	3.11 U	3.15 U	2.06 U	3.34 U	3.22 U	2.03 U	3.34 U	3.26 U	3.85 U
1,2,3,4,7,8-HxCDD	2.62 U	1.16 U	1.14 U	2.49 U	2.6 U	4.85 U	2.46 U	2.49 U	4.9 U	2.64 U	2.55 U	4.83 U	2.64 U	2.58 U	9.16 U
1,2,3,4,7,8-HxCDF	1.09 U	1.15 U	1.27 U	1.04 U	1.08 U	5.04 U	1.02 U	1.04 U	5.08 U	1.1 U	1.06 U	5.02 U	1.1 U	1.07 U	9.51 U
1,2,3,6,7,8-HxCDD	1.57 U	1.23 U	1.22 U	1.5 U	1.56 U	3.51 U	1.48 U	1.5 U	3.54 U	1.59 U	1.53 U	3.5 U	1.58 U	1.55 U	6.63 U
1,2,3,6,7,8-HxCDF	1.42 U	1.19 U	1.34 U	1.35 U	1.41 U	4.97 U	1.33 U	1.35 U	5.02 U	1.43 U	1.38 U	4.95 U	1.43 U	1.39 U	9.38 U
1,2,3,7,8,9-HxCDD	1.72 U	1.13 U	1.18 U	1.63 U	1.7 U	3.28 U	1.61 U	1.63 U	3.31 U	1.73 U	1.67 U	3.26 U	1.73 U	1.69 U	29.3 J
1,2,3,7,8,9-HxCDF	2.69 U	1.18 U	1.32 U	2.56 U	2.67 U	4.28 U	2.53 U	2.56 U	4.32 U	2.71 U	2.61 U	4.26 U	2.71 U	2.64 U	8.07 U
1,2,3,7,8-PeCDD	2.09 U	1.27 U	1.26 U	1.99 U	2.08 U	2.62 U	1.96 U	1.99 U	2.65 U	2.11 U	2.03 U	2.61 U	2.11 U	2.05 U	5.04 J
1,2,3,7,8-PeCDF	2.73 U	1.26 U	1.35 U	2.6 U	2.71 U	3.09 U	2.57 U	2.6 U	3.12 U	2.75 U	2.65 U	3.08 U	2.75 U	2.68 U	5.83 U
2,3,4,6,7,8-HxCDF	2.13 U	1.11 U	1.25 U	2.03 U	2.12 U	6.16 U	2 U	2.03 U	6.22 U	2.15 U	2.07 U	6.13 U	2.15 U	2.09 U	11.6 U
2,3,4,7,8-PeCDF	2.29 U	1.23 U	1.3 U	2.18 U	2.28 U	3.65 U	2.15 U	2.18 U	3.68 U	2.31 U	2.23 U	3.63 U	2.31 U	2.25 U	6.89 U
2,3,7,8-TCDD	0.954 U	1.17 U	1.24 U	0.907 U	0.947 U	0.878 UJ	38.2	0.906 U	0.886 UJ	7.13 J	0.926 U	0.874 U	46	0.937 U	1.66 U
2,3,7,8-TCDF	0.925 U	1.23 U	1.22 U	0.88 U	0.918 U	1.57 U	0.869 U	0.892 U	1.58 U	0.932 U	0.898 U	1.56 U	0.931 U	0.909 U	2.96 U
OCDD	17.8 U	1.23 U	1.23 U	17 U	17.7 U	6.74 U	16.8 U	27.1 J	60.3 U	18 U	17.3 U	6.71 U	18 U	41.8 J	4170
OCDF	2.24 U	1.18 U	1.2 U	2.13 U	2.22 U	5.56 U	2.1 U	2.12 U	5.61 U	2.25 U	2.17 U	5.53 U	2.25 U	2.2 U	10.5 U
Dioxin/Furan TEQ[a][2]	2.09 UT	1.27 UT	1.26 UT	1.99 UT	2.08 UT	2.62 UJT	40.2 T	2 JT	2.65 UJT	9.24 JT	2.03 UT	2.61 UT	48.1 T	2.15 JT	14.2 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	RP-09-35	RP-09-47	RP-09-47	RP-09-64	RP-09-64	RP-10-130	RP-10-130	RP-10-130	RP-10-30	RP-10-30	RP-10-30	RP-10-30	RP-10-30	RP-10-30	RP-10-30
Sample_Date:	9/13/2007	5/30/2007	9/13/2007	5/30/2007	9/13/2007	4/12/2007	5/24/2007	9/14/2007	3/14/2018	3/14/2018	4/12/2007	5/24/2007	8/12/2009	9/14/2007	9/19/2017
Collection Depth (ft bgs):	25-35	42-47	42-47	59-64	59-64	125-130	125-130	125-130	20-30	20-30	20-30	20-30	20-30	20-30	20-30
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	126	2.97 U	2.92 U	2.91 U	3.15 U	3.28 U	2.91 U	2.92 U	1.26 U	1.31 U	3.03 U	2.92 U	91.4	21.8 J	1.14 U
1,2,3,4,6,7,8-HpCDF	4.79 J	2.96 U	2.91 U	2.9 U	4.64 J	3.27 U	2.9 U	2.91 U	1.19 U	1.31 U	3.02 U	2.91 U	2.4 U	3.03 U	0.745 U
1,2,3,4,7,8,9-HpCDF	3.13 U	3.17 U	3.11 U	3.11 U	3.36 U	3.5 U	3.11 U	3.11 U	1.17 U	1.29 U	3.24 U	3.12 U	2.01 U	3.25 U	0.74 U
1,2,3,4,7,8-HxCDD	2.48 U	2.5 U	2.46 U	2.46 U	2.66 U	2.77 U	2.46 U	2.46 U	1.21 U	1.21 U	2.56 U	2.47 U	4.8 U	2.57 U	1.15 U
1,2,3,4,7,8-HxCDF	1.03 U	1.04 U	1.02 U	1.02 U	1.11 U	1.15 U	1.02 U	1.02 U	1.17 U	1.2 U	1.07 U	1.03 U	4.98 U	1.07 U	1.13 U
1,2,3,6,7,8-HxCDD	1.49 U	1.5 U	1.48 U	1.48 U	1.6 U	1.66 U	1.48 U	1.48 U	1.28 U	1.29 U	1.54 U	1.48 U	10.9 J	1.54 U	1.21 U
1,2,3,6,7,8-HxCDF	1.35 J	1.35 U	1.33 U	1.33 U	1.44 U	1.5 U	1.33 U	1.33 U	1.23 U	1.26 U	1.38 U	1.33 U	4.91 U	1.39 U	1.17 U
1,2,3,7,8,9-HxCDD	41.9 J	1.64 U	1.61 U	1.61 U	1.74 U	1.81 U	1.61 U	1.61 U	1.24 U	1.25 U	1.68 U	1.61 U	3.24 U	1.68 U	1.12 U
1,2,3,7,8,9-HxCDF	2.54 U	2.57 U	2.53 U	2.52 U	2.73 U	2.85 U	2.52 U	2.53 U	1.21 U	1.24 U	2.63 U	2.53 U	4.23 U	2.64 U	1.16 U
1,2,3,7,8-PeCDD	1.98 U	2 U	1.96 U	1.96 U	2.12 U	2.21 U	1.96 U	1.96 U	1.24 U	1.15 U	2.04 U	1.97 U	2.59 U	2.05 U	1.29 U
1,2,3,7,8-PeCDF	2.58 U	2.61 U	2.56 U	2.56 U	2.77 U	2.89 U	2.56 U	2.56 U	1.26 U	1.14 U	2.67 U	2.57 U	3.05 U	4.88 J	1.23 U
2,3,4,6,7,8-HxCDF	2.01 U	2.04 U	2 U	2 U	2.16 U	2.25 U	2 U	2 U	1.15 U	1.18 U	2.08 U	2 U	6.09 U	2.09 U	1.09 U
2,3,4,7,8-PeCDF	3.22 J	2.19 U	2.15 U	2.15 U	2.33 U	2.53 J	2.15 U	2.15 U	1.22 U	1.11 U	2.24 U	2.16 U	3.61 U	2.25 U	1.2 U
2,3,7,8-TCDD	41.7	0.91 U	0.895 U	0.894 U	0.967 U	1.01 U	0.894 U	0.895 U	1.2 U	1.32 U	0.932 U	0.897 U	10.8	11.6	1.22 U
2,3,7,8-TCDF	1.73 J	0.883 U	0.868 U	0.867 U	0.938 U	0.978 U	0.867 U	0.868 U	1.24 U	1.24 U	2.78 J	0.87 U	1.55 U	0.906 U	1.14 U
OCDD	2070	17 U	16.7 U	16.7 U	18.1 U	18.9 U	16.7 U	16.7 U	1.4 U	1.24 U	21 J	16.8 U	125	34.6 J	111 U
OCDF	2.11 U	2.14 U	2.1 U	2.1 U	10.9 J	2.36 U	2.1 U	2.1 U	1.27 U	1.29 U	2.19 U	2.1 U	5.49 U	2.19 U	1.22 U
Dioxin/Furan TEQ[a][2]	51.1 JT	2 UT	1.96 UT	1.96 UT	2.17 JT	2.97 JT	1.96 UT	1.96 UT	1.24 UT	1.32 UT	2.32 JT	1.97 UT	15.4 JT	14 JT	1.29 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	RP-10-60	RP-10-60	RP-10-60	RP-10-97	RP-10-97	RP-10-97	RP-10-97	RP-13-11	RP-13-11	RP-13-22	RP-13-22	RP-13-33	RP-13-33	RP-13-33	RP-13-33
Sample_Date:	4/12/2007	5/24/2007	9/14/2007	4/12/2007	5/24/2007	8/12/2009	9/14/2007	8/18/2009	9/17/2007	8/18/2009	9/18/2007	12/6/2017	3/15/2018	6/6/2018	8/18/2009
Collection Depth (ft bgs):	55-60	55-60	55-60	92-97	92-97	92-97	92-97	6-11	6-11	17-22	17-22	27-32	27-32	27-32	27-32
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.04 U	3.1 U	3.17 U	6.99 J	2.96 U	6.37 U	2.95 U	6.28 U	3.13 UJ	6.25 U	3.1 UJ	1.09 U	1.1 U	1.01 U	6.28 U
1,2,3,4,6,7,8-HpCDF	3.03 U	3.09 U	3.16 U	3.13 U	2.95 U	2.48 U	2.94 U	2.45 U	3.12 UJ	2.44 U	3.09 UJ	1.23 U	0.926 U	1.23 U	2.45 U
1,2,3,4,7,8,9-HpCDF	3.25 U	3.31 U	3.38 U	3.36 U	3.16 U	2.09 U	3.15 U	2.06 U	3.34 UJ	2.05 U	3.3 UJ	1.22 U	0.913 U	1.21 U	2.06 U
1,2,3,4,7,8-HxCDD	2.57 U	2.62 U	2.68 U	2.66 U	2.5 U	4.98 U	2.49 U	4.9 U	2.65 UJ	4.88 U	2.62 UJ	1.38 U	0.951 U	0.75 U	4.9 U
1,2,3,4,7,8-HxCDF	1.07 U	1.09 U	1.11 U	1.1 U	1.04 U	5.17 U	1.04 U	5.09 U	1.1 UJ	5.06 U	1.74 J	1.14 U	1.25 U	1.25 U	5.09 U
1,2,3,6,7,8-HxCDD	1.54 U	1.57 U	1.61 U	1.59 U	1.5 U	3.6 U	1.5 U	3.55 U	1.59 UJ	3.53 U	1.57 UJ	1.46 U	1.01 U	0.759 U	3.55 U
1,2,3,6,7,8-HxCDF	1.39 U	1.42 U	1.45 U	1.43 U	1.35 U	5.1 U	1.35 U	5.02 U	1.43 UJ	5 U	1.41 UJ	1.18 U	1.31 U	1.33 U	5.02 U
1,2,3,7,8,9-HxCDD	1.68 U	1.72 U	1.75 U	1.74 U	1.63 U	3.36 U	1.63 U	3.31 U	1.73 UJ	3.29 U	1.71 UJ	1.34 U	0.98 U	0.771 U	3.31 U
1,2,3,7,8,9-HxCDF	2.64 U	2.69 U	2.75 U	2.72 U	2.56 U	4.39 U	2.56 U	4.32 U	2.72 UJ	4.3 U	2.68 UJ	1.17 U	1.29 U	1.32 U	4.32 U
1,2,3,7,8-PeCDD	2.05 U	2.09 U	2.13 U	2.12 U	1.99 U	2.69 U	1.99 U	2.65 U	2.11 UJ	2.64 U	2.08 UJ	1.2 U	1.42 U	1.11 U	2.65 U
1,2,3,7,8-PeCDF	2.68 U	2.73 U	2.79 U	2.77 U	2.6 U	3.17 U	2.6 U	3.12 U	2.76 UJ	3.11 U	2.72 UJ	1.04 U	1.09 U	0.962 U	3.12 U
2,3,4,6,7,8-HxCDF	2.09 U	2.13 U	2.17 U	2.16 U	2.03 U	6.32 U	2.03 U	6.23 U	2.15 UJ	6.19 U	2.13 UJ	1.1 U	1.22 U	1.22 U	6.23 U
2,3,4,7,8-PeCDF	2.25 U	2.29 U	2.34 U	2.32 U	2.18 U	3.74 U	2.18 U	3.69 U	2.31 UJ	3.67 U	2.29 UJ	1.01 U	1.06 U	0.86 U	3.69 U
2,3,7,8-TCDD	0.935 U	0.953 U	0.973 U	0.965 U	0.908 U	0.9 U	0.906 U	0.887 U	0.962 UJ	0.882 U	0.951 UJ	1.37 U	1.41 U	1.01 U	0.887 U
2,3,7,8-TCDF	2.41 J	0.924 U	0.943 U	0.936 U	0.881 U	1.61 U	0.879 U	1.59 U	0.933 UJ	1.58 U	0.922 UJ	1.21 U	1.41 U	0.724 U	1.59 U
OCDD	17.8 J	17.8 U	18.2 U	30.5 J	17 U	6.91 U	17 U	6.81 U	18 UJ	6.77 U	20.1 J	1.87 UK	0.962 U	2.32 U	6.81 U
OCDF	2.19 U	2.23 U	2.28 U	2.26 U	2.13 U	5.7 U	2.12 U	5.61 U	2.26 UJ	5.58 U	2.23 UJ	1.07 U	0.898 U	1.33 U	5.61 U
Dioxin/Furan TEQ[a][2]	2.3 JT	2.09 UT	2.13 UT	2.2 JT	1.99 UT	2.69 UT	1.99 UT	2.65 UT	2.11 UJT	2.64 UT	2.26 JT	1.37 UT	1.42 UT	1.11 UT	2.65 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	RP-13-33	RP-13-33	RP-13-33	RP-13-33	RP-13-43	RP-13-43	RP-13-43	RP-13-43	RP-13-43	RP-13-43	RP-14-11	RP-14-11	RP-14-26	RP-14-26	RP-14-26
Sample_Date:	8/18/2009	9/18/2007	9/18/2007	9/21/2017	12/6/2017	3/15/2018	6/6/2018	8/18/2009	9/17/2007	9/21/2017	1/6/2010	9/18/2007	8/18/2009	8/18/2009	9/18/2007
Collection Depth (ft bgs):	27-32	27-32	27-32	27-32	37-42	37-42	37-42	37-42	37-42	37-42	6-11	6-11	20-25	20-25	20-25
Sample Type	FD	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6.29 U	3.03 UJ	2.91 UJ	1.12 U	0.92 U	1.03 U	1.39 U	6.34 U	3.12 U	1.13 U	44.2 J	14.5 J	32.4 J	28.1 J	13.2 J
1,2,3,4,6,7,8-HpCDF	2.45 U	3.02 UJ	2.9 UJ	0.766 U	0.703 U	1.09 U	0.974 U	2.47 U	3.11 U	1.18 U	80.6	7.48 J	2.41 U	2.41 U	3.02 UJ
1,2,3,4,7,8,9-HpCDF	2.06 U	3.24 UJ	3.1 UJ	0.761 U	0.699 U	1.08 U	0.957 U	2.08 U	3.33 U	1.17 U	29 J	3.16 UJ	2.03 U	2.02 U	3.23 UJ
1,2,3,4,7,8-HxCDD	4.91 U	2.56 UJ	2.46 UJ	1.11 U	0.942 U	0.998 U	1.09 U	4.95 U	2.64 U	1.08 U	5.35 U	2.5 UJ	4.83 U	4.82 U	2.55 UJ
1,2,3,4,7,8-HxCDF	5.09 U	1.06 UJ	2.12 J	1.04 U	1.04 U	1.08 U	0.653 U	5.14 U	1.1 U	1.14 U	224	19.8 J	5.01 U	5 U	1.06 UJ
1,2,3,6,7,8-HxCDD	3.55 U	1.54 UJ	2.04 J	1.17 U	0.995 U	1.06 U	1.1 U	3.58 U	1.58 U	1.14 U	4.23 J	1.5 UJ	3.49 U	3.48 U	1.53 UJ
1,2,3,6,7,8-HxCDF	5.03 U	1.38 UJ	2.14 J	1.08 U	1.08 U	1.14 U	0.698 U	5.07 U	1.42 U	1.18 U	56.9 J	4.48 J	4.94 U	4.93 U	1.38 UJ
1,2,3,7,8,9-HxCDD	3.32 U	1.68 UJ	1.94 J	1.07 U	0.915 U	1.03 U	1.12 U	3.34 U	1.72 U	1.05 U	3.61 U	1.64 UJ	3.26 U	3.25 U	1.67 UJ
1,2,3,7,8,9-HxCDF	4.33 U	2.63 UJ	2.52 UJ	1.07 U	1.07 U	1.12 U	0.693 U	4.36 U	2.7 U	1.17 U	32.6 J	2.96 J	4.25 U	4.25 U	2.62 UJ
1,2,3,7,8-PeCDD	2.65 U	2.04 UJ	2.91 J	1.14 U	1.46 U	1.21 U	0.67 U	2.68 U	2.1 U	1.03 U	2.89 U	1.99 UJ	2.61 U	2.6 U	2.04 UJ
1,2,3,7,8-PeCDF	3.13 U	2.67 UJ	2.56 UJ	1 U	0.95 U	0.949 U	0.896 U	3.15 U	2.75 U	1.09 U	181	15.8 J	3.07 U	3.07 U	2.66 UJ
2,3,4,6,7,8-HxCDF	6.23 U	2.08 UJ	2 UJ	1 U	1 U	1.06 U	0.641 U	6.29 U	2.14 U	1.1 U	19.8 J	2.03 UJ	6.13 U	6.12 U	2.08 UJ
2,3,4,7,8-PeCDF	3.69 U	2.24 UJ	2.81 J	0.978 U	0.927 U	0.919 U	0.801 U	3.72 U	2.3 U	1.07 U	116	11.8 J	3.63 U	3.62 U	2.23 UJ
2,3,7,8-TCDD	0.888 U	5.66 J	0.893 UJ	1.54 UK	1.15 U	1.23 U	1.21 U	0.895 U	12.7	1.85 UK	0.967 U	12.8 J	0.873 U	0.871 U	0.929 UJ
2,3,7,8-TCDF	1.59 U	0.903 UJ	0.866 UJ	1.18 U	0.945 U	1.1 U	0.945 U	1.6 U	0.929 U	1.11 U	157 J	21 J	1.56 U	1.56 U	0.901 UJ
OCDD	6.81 U	17.4 UJ	16.7 UJ	1.23 UK	1.33 U	1.35 U	3.34 UK	6.87 U	17.9 U	1.04 U	345	108 J	84.3 J	72.2 J	72.2 J
OCDF	5.62 U	2.18 UJ	2.09 UJ	1.02 U	1.35 U	1.27 U	1.78 U	5.67 U	2.25 U	1.08 U	145	11.6 J	5.53 U	5.51 U	2.18 UJ
Dioxin/Furan TEQ[a][2]	2.65 UT	7.7 JT	5.47 JT	1.54 UT	1.46 UT	1.23 UT	1.21 UT	2.68 UT	14.8 T	1.85 UT	94.3 JT	23.9 JT	2.96 JT	2.9 JT	2.19 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema														
Location:	RP-14-39	RP-14-39	RP-14-39	W-19-120	W-19-150	W-19-170	W-19-211	W-19-D(68)	W-19-D(68)	W-19-D(68)	W-19-D(68)	W-19-D(68)	W-19-D(68)	W-19-D(68)	W-19-D(68)
Sample_Date:	8/18/2009	9/18/2007	9/21/2017	1/7/2010	1/7/2010	1/7/2010	1/7/2010	1/7/2010	1/7/2010	10/16/2000	4/18/2000	4/2/1998	4/2/1998	5/29/2007	9/13/2007
Collection Depth (ft bgs):	34-39	34-39	34-39	-	-	-	-	62.5-67.5	62.5-67.5	62.5-67.5	62.5-67.5	62.5-67.5	62.5-67.5	62.5-67.5	62.5-67.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	FD	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	21.1 J	3.15 UJ	1.45	6.11 U	6.33 U	6.06 U	7.17 U	6.3 U	8.18 J	7.4	8.79 U	2.7 U	5.2 U	2.94 U	2.92 U
1,2,3,4,6,7,8-HpCDF	2.38 U	3.14 UJ	0.752 U	2.38 U	2.47 U	2.36 U	2.8 U	2.46 U	2.61 U	3.3 U	5.36 U	2.2 U	2.2 U	2.93 U	2.91 U
1,2,3,4,7,8,9-HpCDF	2 U	3.36 UJ	0.748 U	2 U	2.07 U	1.99 U	2.35 U	2.07 U	2.2 U	2.4	7.55 U	0.54 U	2.7 U	3.13 U	3.11 U
1,2,3,4,7,8-HxCDD	4.76 U	2.66 UJ	1.1 U	4.77 U	4.94 U	4.73 U	5.6 U	4.92 U	5.23 U	0.7 U	9.43 U	4.1 U	12 U	2.48 U	2.46 U
1,2,3,4,7,8-HxCDF	4.94 U	1.11 UJ	0.993 U	4.95 U	5.13 U	4.91 U	5.81 U	5.11 U	5.43 U	2.3	5.32 U	1.4 U	5.3 U	1.03 U	1.02 U
1,2,3,6,7,8-HxCDD	3.44 U	1.6 UJ	1.16 U	3.45 U	3.57 U	3.42 U	4.05 U	3.56 U	3.78 U	1.2 U	6.35 U	4 U	12 U	1.49 U	1.48 U
1,2,3,6,7,8-HxCDF	4.87 U	1.44 UJ	1.03 U	4.89 U	5.06 U	4.85 U	5.74 U	5.04 U	5.36 U	1.4	3.99 U	1.4 U	5.4 U	1.34 U	1.33 U
1,2,3,7,8,9-HxCDD	3.21 U	1.74 UJ	1.07 U	3.22 U	3.34 U	3.2 U	3.78 U	3.32 U	3.53 U	2.3	7.28 U	3.7 U	11 U	1.62 U	1.61 U
1,2,3,7,8,9-HxCDF	4.19 U	2.73 UJ	1.02 U	4.21 U	4.35 U	4.17 U	4.93 U	4.33 U	4.61 U	2.5	6.31 U	1.7 U	6.4 U	2.54 U	2.53 U
1,2,3,7,8-PeCDD	4.03 J	2.12 UJ	1.18 U	2.58 U	2.67 U	2.56 U	3.03 U	2.66 U	2.83 U	10 U	8.73 U	1.5 U	13 U	1.98 U	1.96 U
1,2,3,7,8-PeCDF	3.03 U	2.77 UJ	0.993 U	3.04 U	3.15 U	3.01 U	3.57 U	3.13 U	3.33 U	11.6 U	6.23 U	0.99 U	4.3 U	2.58 U	2.57 U
2,3,4,6,7,8-HxCDF	6.04 U	2.16 UJ	0.958 U	6.06 U	6.27 U	6.01 U	7.11 U	6.25 U	6.64 U	0.5 U	4.66 U	3.5 U	5.7 U	2.01 U	2 U
2,3,4,7,8-PeCDF	3.58 U	2.32 UJ	0.969 U	3.59 U	3.71 U	3.56 U	4.21 U	3.7 U	3.93 U	27.6 U	6.3 U	1 U	4.4 U	2.17 U	2.15 U
2,3,7,8-TCDD	0.86 U	0.966 UJ	1.16 U	0.863 U	0.893 U	0.856 U	1.01 U	0.89 U	0.946 U	0.99 U	7.77 U	1.2 U	5.5 U	0.901 U	22.7
2,3,7,8-TCDF	1.54 U	0.937 UJ	1.02 U	1.54 U	1.6 U	1.53 U	1.81 U	1.59 U	1.69 U	1.7 U	6.89 U	0.87 U	5.2 U	0.874 U	0.869 U
OCDD	59.8 U	18.1 J	111 U	6.63 U	6.86 U	6.57 U	7.77 U	6.83 U	62.8 J	65.2	11.7 U	19 U	6.6 U	16.9 U	16.8 U
OCDF	5.45 U	2.27 UJ	1.12 U	5.46 U	5.66 U	5.42 U	6.41 U	5.63 U	7.03 J	13.3	14.7 U	2.9 U	7.7 U	2.11 U	2.1 U
Dioxin/Furan TEQ[a][2]	5.32 JT	2.13 JT	1.19 T	2.58 UT	2.67 UT	2.56 UT	3.03 UT	2.66 UT	2.93 JT	11 T	8.73 UT	1.5 UT	13 UT	1.98 UT	24.7 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Arkema								BNSF						
Location:	W-19-I(49)	W-19-I(49)	W-19-I(49)	W-19-I(49)	W-19-I(49)	W-19-S(25)	W-19-S(25)	W-19-S(25)	EX-S-02-117	EX-S-02-117	EX-S-02-117	GGW-025	GGW-025	GGW-026	GGW-026
Sample_Date:	10/16/2000	4/18/2000	4/2/1998	5/29/2007	9/12/2007	4/18/2000	4/2/1998	5/29/2007	6/3/2009	7/18/2008	8/13/2008	10/20/1999	10/20/1999	10/18/1999	10/18/1999
Collection Depth (ft bgs):	44-49	44-49	44-49	44-49	44-49	20-25	20-25	20-25	106-116	106-116	106-116	25-28	43-46	27-30	48-51
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	0.9 U	8.79 U	5 U	3.17 U	2.94 U	8.79 U	6.4 U	3.07 U	6.38 U	3.87 U	3.65 U	29.2 U	29.2 U	29.2 U	29.2 U
1,2,3,4,6,7,8-HpCDF	2.2	5.36 U	1.2 U	3.16 U	2.93 U	5.36 U	4.1 U	3.06 U	2.49 U	1.69 U	1.59 U	13.3 U	13.3 U	13.3 U	13.3 U
1,2,3,4,7,8,9-HpCDF	0.6 U	7.55 U	1.7 U	3.38 U	3.13 U	7.55 U	0.67 U	3.28 U	2.09 U	3.07 U	2.9 U	21.2 U	21.2 U	21.2 U	21.2 U
1,2,3,4,7,8-HxCDD	0.6 U	9.43 U	5.2 U	2.68 U	2.48 U	9.43 U	5.8 U	2.6 U	4.98 U	1.58 U	1.49 U	21.3 U	21.3 U	21.3 U	21.3 U
1,2,3,4,7,8-HxCDF	1.3	5.32 U	1.4 U	1.11 U	1.03 U	5.32 U	2.2 U	1.08 U	5.17 U	2.91 U	2.74 U	25.1 U	25.1 U	25.1 U	25.1 U
1,2,3,6,7,8-HxCDD	0.6 U	6.35 U	4.5 U	1.61 U	1.49 U	6.35 U	5.6 U	1.56 U	3.6 U	2.28 U	2.15 U	18 U	18 U	18 U	18 U
1,2,3,6,7,8-HxCDF	0.3 U	3.99 U	1.4 U	1.45 U	1.34 U	3.99 U	2.2 U	1.4 U	5.1 U	2.18 U	2.06 U	15.5 U	15.5 U	15.5 U	15.5 U
1,2,3,7,8,9-HxCDD	0.6 U	7.28 U	4.6 U	1.75 U	1.62 U	7.28 U	5.2 U	1.7 U	3.37 U	1.55 U	1.46 U	20 U	20 U	20 U	20 U
1,2,3,7,8,9-HxCDF	0.4 U	6.31 U	1.7 U	2.75 U	2.54 U	6.31 U	2.6 U	2.66 U	4.39 U	3.34 U	3.15 U	29.4 U	29.4 U	29.4 U	29.4 U
1,2,3,7,8-PeCDD	0.5 U	8.73 U	4.3 U	2.14 U	1.98 U	8.73 U	2 U	2.07 U	2.69 U	0.97 U	0.914 U	17.8 U	17.8 U	17.8 U	17.8 U
1,2,3,7,8-PeCDF	0.4 U	6.23 U	5.7 U	2.79 U	2.58 U	6.23 U	1.9 U	2.7 U	3.17 U	2.32 U	2.19 U	21.7 U	21.7 U	21.7 U	21.7 U
2,3,4,6,7,8-HxCDF	0.4 U	4.66 U	3.1 U	2.18 U	2.01 U	4.66 U	2.3 U	2.11 U	6.33 U	2.78 U	2.62 U	13.4 U	13.4 U	13.4 U	13.4 U
2,3,4,7,8-PeCDF	0.4 U	6.3 U	5.8 U	2.34 U	2.17 U	6.3 U	1.9 U	2.27 U	3.75 U	2.34 U	2.21 U	13.5 U	13.5 U	13.5 U	13.5 U
2,3,7,8-TCDD	0.55	7.77 U	3.5 U	0.974 U	0.901 U	7.77 U	2 U	0.944 U	0.901 UJ	0.891 U	0.84 U	2.4 U	2.4 U	2.4 U	2.4 U
2,3,7,8-TCDF	0.3 U	6.89 U	2.1 U	0.945 U	0.874 U	6.89 U	1.3 U	0.915 U	1.61 U	0.527 U	0.497 U	7.4 U	7.4 U	7.4 U	7.4 U
OCDD	3.9 U	11.7 U	14 U	18.2 U	16.9 U	11.7 U	25 U	17.7 U	6.92 U	5.42 J	1.68 U	12.7 U	12.7 U	12.7 U	12.7 U
OCDF	1.1 U	14.7 U	13 U	2.28 U	2.11 U	14.7 U	4.2 U	2.21 U	5.7 U	2.81 U	2.65 U	17.2 U	17.2 U	17.2 U	17.2 U
Dioxin/Furan TEQ[a][2]	1.2 T	8.73 UT	4.3 UT	2.14 UT	1.98 UT	8.73 UT	2 UT	2.07 UT	2.69 UJT	0.972 JT	0.914 UT	17.8 UT	17.8 UT	17.8 UT	17.8 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	GGW-027	GGW-027	MW-12-27	MW-12-41	MW-12-59	MW-12-79	MW-12-79	MW-12-79	NDL-101-GW	NDL-103-GW	NDL-104-GW	NDL-105-GW	NDL-106-GW	NDL-107-GW	PM-02-091
Sample_Date:	10/19/1999	10/19/1999	8/3/1993	8/3/1993	8/3/1993	3/15/2018	8/2/1993	9/7/2017	12/3/2003	12/10/2003	12/3/2003	12/3/2003	12/2/2003	12/9/2003	7/14/2008
Collection Depth (ft bgs):	21-24	72-75	14.5-24.5	-	-	73.5-78	73.5-78	73.5-78	0.01-0.01	0.01-0.01	0.01-0.01	0.01-0.01	0.01-0.01	0.01-0.01	81-91
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	29.2 U	29.2 U	17 J	4.5 U	7.8 J	1.12 U	7.9 U	1.17 U	167	74 J	78.5	153	40.4 J	119	3.83 U
1,2,3,4,6,7,8-HpCDF	13.3 U	13.3 U	3.7 U	1.5 U	3.1 U	1.18 U	2.9 U	1.21 U	39.4 J	17.3 J	16.5 J	33.9 J	10.8 J	24.8 U	1.67 U
1,2,3,4,7,8,9-HpCDF	21.2 U	21.2 U	1.9 U	1.1 U	2.7 U	1.17 U	1.2 U	1.2 U	7.9 U	12.8 UJ	12.5 U	6.8 U	13.4 U	3.8 U	3.04 U
1,2,3,4,7,8-HxCDD	21.3 U	21.3 U	3.5 U	2.1 U	2 U	1.01 U	2 U	1.12 U	5.5 J	6.67 UJ	6.53 U	6.64 U	6.98 U	6.51 U	1.57 U
1,2,3,4,7,8-HxCDF	25.1 U	25.1 U	1.1 U	0.86 U	0.75 U	1.25 U	0.8 U	1.24 U	12.2 J	17.6 UJ	17.2 U	12 J	18.4 U	8.2 J	2.88 U
1,2,3,6,7,8-HxCDD	18 U	18 U	3.2 U	1.8 U	1.7 U	1.08 U	1.9 U	1.18 U	9.6 J	8.32 UJ	8.14 U	8.28 U	8.7 U	6.4 J	2.25 U
1,2,3,6,7,8-HxCDF	15.5 U	15.5 U	1.1 U	0.82 U	0.6 U	1.32 U	1 U	1.29 U	7.6 J	8.99 UJ	8.8 U	8.95 U	9.41 U	8.77 U	2.16 U
1,2,3,7,8,9-HxCDD	20 U	20 U	3.2 U	1.8 U	1.7 U	1.04 U	1.9 U	1.09 U	8.5 J	14.5 UJ	14.2 U	14.4 U	15.2 U	14.2 U	1.54 U
1,2,3,7,8,9-HxCDF	29.4 U	29.4 U	1 U	0.96 U	0.48 U	1.3 U	1.3 U	1.28 U	31.7 U	30.9 UJ	30.2 U	30.7 U	32.3 U	30.1 U	3.3 U
1,2,3,7,8-PeCDD	17.8 U	17.8 U	2 U	1.8 U	1.5 U	1.45 U	1.9 U	1.28 U	7.75 U	7.54 UJ	7.38 U	7.51 U	7.89 U	7.36 U	0.959 U
1,2,3,7,8-PeCDF	21.7 U	21.7 U	1.9 U	1.4 U	1.3 U	1.24 U	1.6 U	1.3 U	54.8 U	68.9 U	10.4 U	53.8 U	4.76 U	12.7 U	2.3 U
2,3,4,6,7,8-HxCDF	13.4 U	13.4 U	2.6 U	2.3 U	2.4 U	1.23 U	3.2 U	1.2 U	9.9 J	21.1 UJ	20.6 U	21 U	22.1 U	20.6 U	2.75 U
2,3,4,7,8-PeCDF	13.5 U	13.5 U	1.9 U	1.4 U	1.2 U	1.2 U	1.6 U	1.27 U	6.8 J	5.61 UJ	3.2 U	5.58 U	5.87 U	5.47 U	2.32 U
2,3,7,8-TCDD	2.4 U	2.4 U	3.1 U	2.4 U	3.4 U	1.26 U	2.9 U	1.27 U	15.3 U	3.19 UJ	3.12 U	19 U	3.34 U	3.11 U	4.25 J
2,3,7,8-TCDF	7.4 U	7.4 U	1.1 U	0.6 U	0.68 U	1.5 U	0.66 U	1.16 U	6 J	6.09 UJ	5.96 U	7 J	6.38 U	5.94 U	0.521 U
OCDD	56.3	12.7 U	460	29 U	140 U	1.45 U	63 UJ	2.96	2040	694 J	1050	1450	554	1780	1.76 U
OCDF	17.2 U	17.2 U	9 U	3.1 U	4.9 U	1.51 U	7.4 U	1.11 U	97.9 J	33.1 J	45.3 J	104	33.1 U	59.2 U	2.78 U
Dioxin/Furan TEQ[a][2]	17.8 T	17.8 UT	3.41 JT	2.4 UT	3.48 JT	1.45 UT	2.9 UJT	1.28 T	26 JT	8.67 JT	8.66 JT	23.2 JT	8.57 JT	10.5 JT	5.21 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	PM-02-091	PM-02-122	PM-02-122	PM-03-098	PM-03-098	PM-03-098	PM-03-107	PM-03-107	PZ-1-11	RP-01-31	RP-01-31	RP-01-31	RP-01-31	RP-01-31	RP-01-31
Sample_Date:	8/14/2008	7/14/2008	8/14/2008	7/16/2008	7/16/2008	8/14/2008	7/16/2008	8/14/2008	12/7/2017	10/11/2000	12/7/2017	3/21/2018	3/24/2006	4/17/2000	4/5/2002
Collection Depth (ft bgs):	81-91	110-120	110-120	88-98	88-98	88-98	102-107	102-107	-	25-30	25-30	25-30	25-30	25-30	25-30
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.46 U	3.75 U	3.62 U	3.49 U	3.47 U	3.54 U	3.47 U	3.55 U	23.1	3.4 U	1.33 U	1.08 U	3.1 U	8.79 U	41.8 J
1,2,3,4,6,7,8-HpCDF	1.51 U	1.63 U	1.58 U	1.52 U	1.51 U	1.54 U	1.51 U	1.55 U	27.7	1.7 U	1.29 U	1.06 U	2.1 U	5.36 U	2.2 U
1,2,3,4,7,8,9-HpCDF	2.75 U	2.98 U	2.87 U	2.77 U	2.76 U	2.81 U	2.76 U	2.82 U	1.08 U	2.4 U	1.28 U	1.06 U	3.3 U	7.55 U	6.19 U
1,2,3,4,7,8-HxCDD	1.42 U	1.53 U	1.48 U	1.43 U	1.42 U	1.45 U	1.42 U	1.45 U	1.36 U	2.1 U	1.21 U	1 U	3.2 U	9.43 U	3.1 U
1,2,3,4,7,8-HxCDF	2.6 U	2.82 U	2.72 U	2.62 U	2.61 U	2.66 U	2.61 U	2.67 U	3.6	1.4	1.33 U	1.04 U	1.9 U	5.32 U	3.6 UJ
1,2,3,6,7,8-HxCDD	2.04 U	2.2 U	2.13 U	2.05 U	2.04 U	2.08 U	2.04 U	2.09 U	2.25	2 U	1.28 U	0.951 U	3.2 U	6.35 U	3.5 U
1,2,3,6,7,8-HxCDF	1.95 U	2.11 U	2.04 U	1.96 U	1.96 U	1.99 U	1.95 U	2 U	2.93	1.5 U	1.37 U	0.994 U	1.6 U	3.99 U	3.5 U
1,2,3,7,8,9-HxCDD	1.39 U	1.5 U	1.45 U	1.4 U	1.39 U	1.42 U	1.39 U	1.43 U	1.32 U	2 U	1.18 U	1.05 U	3 U	7.28 U	7.8 J
1,2,3,7,8,9-HxCDF	2.99 U	3.23 U	3.12 U	3.01 U	3 U	3.05 U	2.99 U	3.07 U	1.14 U	1.8 U	1.36 U	1.03 U	2.2 U	6.31 U	2.9 U
1,2,3,7,8-PeCDD	0.867 U	0.939 U	0.906 U	0.874 U	0.87 U	0.886 U	0.869 U	0.89 U	4.5	1.4 U	1.24 U	1.06 U	4.9 U	8.73 U	2.3 U
1,2,3,7,8-PeCDF	2.07 U	2.25 U	2.17 U	2.09 U	2.08 U	2.12 U	2.08 U	2.13 U	3.05 UK	1.3 U	1.28 U	1.06 U	2.4 U	6.23 U	3.6 J
2,3,4,6,7,8-HxCDF	2.48 U	2.69 U	2.6 U	2.51 U	2.49 U	2.54 U	2.49 U	2.55 U	3.55	1.5 U	1.28 U	0.968 U	1.5 U	4.66 U	1.9 J
2,3,4,7,8-PeCDF	2.09 U	2.27 U	2.19 U	2.11 U	2.1 U	2.14 U	2.1 U	2.15 U	3.85 UK	1.3 U	1.25 U	1.05 U	2.4 U	6.3 U	2.9 J
2,3,7,8-TCDD	0.842 U	11	0.88 U	0.803 U	0.799 U	0.861 U	0.844 U	0.865 U	9.8 J	1.4 U	1.34 U	1.1 U	2.4 U	7.77 U	4.5 J
2,3,7,8-TCDF	0.471 U	0.51 U	0.492 U	0.475 U	0.473 U	0.481 U	0.472 U	0.484 U	1.38 U	1.2 U	1 U	1.03 U	1.8 U	6.89 U	5 J
OCDD	1.59 U	8.69 J	1.66 U	1.61 U	1.6 U	1.63 U	1.6 U	1.64 U	264	10.9	4.08	1.04 U	6.2 U	11.7 U	252
OCDF	2.52 U	2.72 U	2.63 U	2.54 U	2.53 U	2.57 U	2.52 U	2.58 U	100 U	3.8 U	1.38 U	1.05 U	6 U	14.7 U	18.5 U
Dioxin/Furan TEQ[a][2]	0.867 UT	11.9 JT	0.906 UT	0.874 UT	0.87 UT	0.886 UT	0.869 UT	0.89 UT	17.3 JT	1.54 T	1.34 T	1.1 UT	4.9 UT	8.73 UT	9.74 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-01-31	RP-01-31	RP-01-31	RP-01-31	RP-01-31	RP-01-31	RP-01-51	RP-01-51	RP-01-51	RP-01-51	RP-01-51	RP-01-51	RP-01-51	RP-01-51	RP-01-51
Sample_Date:	5/16/2007	6/26/2001	6/7/2018	7/26/2006	9/11/2007	9/19/2017	10/11/2000	3/24/2006	4/15/2004	4/17/2000	4/18/2005	4/8/2002	5/16/2007	6/12/2009	6/26/2001
Collection Depth (ft bgs):	25-30	25-30	25-30	25-30	25-30	25-30	45-50	45-50	45-50	45-50	45-50	45-50	45-50	45-50	45-50
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.77 U	8.72 U	1.01 U	5.28 U	2.99 U	1.21 U	2.8 U	3.6 U	7.96 U	8.79 U	12 U	8.67 U	2.92 U	6.64 U	8.81 U
1,2,3,4,6,7,8-HpCDF	2.77 U	7.55 U	1.04 U	7.38 U	2.98 U	1.24 U	1.4 U	1.9 U	1.2 J	5.36 U	12 U	2.1 U	2.91 U	2.59 U	7.62 U
1,2,3,4,7,8,9-HpCDF	2.96 U	10.8 U	1.05 U	6.95 U	3.19 U	1.23 U	1.4 U	2.9 U	12.8 U	7.55 U	12 U	6.19 U	3.11 U	2.18 U	10.9 U
1,2,3,4,7,8-HxCDD	2.34 U	14.4 U	0.997 U	4.18 U	2.53 U	1.14 U	1.6 U	3.9 U	6.7 U	9.43 U	12 U	2.7 J	2.46 U	5.18 U	14.6 U
1,2,3,4,7,8-HxCDF	0.975 U	11.4 U	1.12 U	3.89 U	1.05 U	1.15 U	1.1 U	2.1 U	1.2 U	5.32 U	12 U	1.8 UJ	1.02 U	5.38 U	11.5 U
1,2,3,6,7,8-HxCDD	1.41 U	9.8 U	1.01 U	4.79 U	1.52 U	1.2 U	1.6 U	3.7 U	8.35 U	6.35 U	12 U	2.2 J	1.48 U	3.75 U	9.9 U
1,2,3,6,7,8-HxCDF	1.27 U	5.88 U	1.19 U	4.53 U	1.37 U	1.19 U	1 U	1.8 U	9.03 U	3.99 U	12 U	2.3 J	1.33 U	5.31 U	5.94 U
1,2,3,7,8,9-HxCDD	1.53 U	19.2 U	1.05 U	6.29 U	1.65 U	1.1 U	1.6 U	3.5 U	14.6 U	7.28 U	12 U	1.8 J	1.61 U	3.5 U	19.4 U
1,2,3,7,8,9-HxCDF	2.4 U	11.3 U	1.18 U	4.81 U	2.59 U	1.53	1.4 U	2.4 U	31 U	6.31 U	12 U	2.4 J	2.53 U	4.57 U	11.4 U
1,2,3,7,8-PeCDD	1.87 U	6.57 U	1.02 U	5.52 U	2.02 U	1.21 U	1.2 U	5.2 U	7.57 U	8.73 U	12 U	1.6 U	1.96 U	2.8 U	6.63 U
1,2,3,7,8-PeCDF	2.44 U	5.19 U	0.734 U	3.1 U	2.63 U	1.3 U	1.2	2.5 U	4.56 U	6.23 U	12 U	2.5 J	2.56 U	3.3 U	5.25 U
2,3,4,6,7,8-HxCDF	1.9 U	19.4 U	1.09 U	5 U	2.05 U	1.11 U	1.2 U	1.6 U	21.2 U	4.66 U	12 U	2.3 J	2 U	6.58 U	19.6 U
2,3,4,7,8-PeCDF	2.05 U	27.3 U	0.649 U	3.77 U	2.21 U	1.26 U	1.2 U	2.6 U	5.63 U	6.3 U	12 U	2.1 U	2.15 U	3.9 U	27.6 U
2,3,7,8-TCDD	0.852 U	6.57 UJ	1.11 U	2.89 U	0.919 U	1.2 U	1.2 U	2.7 U	3.2 U	7.77 U	2.5 U	1.4 U	0.895 U	0.937 U	6.63 U
2,3,7,8-TCDF	0.826 U	5.49 UJ	0.517 U	3.67 U	0.892 U	1.1 U	0.9 U	1.7 U	6.12 U	6.89 U	2.5 U	1.1 U	0.868 U	1.68 U	5.54 U
OCDD	15.9 U	10.8 U	2.79	14.5 U	17.2 U	2.42	5.6 U	6.6 U	8.1 U	11.7 U	25 U	8.7 J	16.7 U	7.19 U	23.6 U
OCDF	2 U	22.4 U	1.05 U	50 U	2.16 U	1.61	3 U	6.4 U	3.1 U	14.7 U	25 U	18.5 U	2.1 U	5.93 U	22.7 U
Dioxin/Furan TEQ[a][2]	1.87 UT	8.19 UJT	1.11 T	5.52 UT	2.02 UT	1.36 T	1.24 T	5.2 UT	7.58 JT	8.73 UT	12 UT	3.05 JT	1.96 UT	2.8 UT	8.28 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-01-51	RP-01-51	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65	RP-01-65
Sample_Date:	7/26/2006	9/11/2007	10/11/2000	3/24/2006	4/15/2004	4/17/2000	4/18/2005	4/5/2002	5/16/2007	6/12/2009	6/26/2001	7/26/2006	7/31/2006	9/11/2007	9/19/2017
Collection Depth (ft bgs):	45-50	45-50	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64	59-64
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.45 U	3.13 U	3.4 U	4 U	7.81 U	8.79 U	12 U	9.4 U	2.94 U	6.46 U	8.81 U	5.4 U	5.21 U	2.94 U	1.24 U
1,2,3,4,6,7,8-HpCDF	7.61 U	3.12 U	1.9 U	2.3 U	1.4 J	5.36 U	12 U	5.7 UJ	2.93 U	2.52 U	7.62 U	7.54 U	7.27 U	2.93 U	1.22 U
1,2,3,4,7,8,9-HpCDF	7.17 U	3.34 U	2.6 U	3.2 U	1.9 U	7.55 U	12 U	6.25 UJ	3.13 U	2.12 U	10.9 U	7.11 U	6.85 U	3.14 U	1.21 U
1,2,3,4,7,8-HxCDD	4.32 U	2.64 U	2.1 U	3.9 U	2.3 U	9.43 U	12 U	3.6 UJ	2.48 U	5.04 U	14.6 U	4.28 U	4.12 U	2.48 U	1.13 U
1,2,3,4,7,8-HxCDF	4.01 U	1.1 U	1.4 U	3 U	1.7 U	5.32 U	12 U	5.4 UJ	1.03 U	5.23 U	11.5 U	3.98 U	3.83 U	1.03 U	1.28 U
1,2,3,6,7,8-HxCDD	4.94 U	1.58 U	2 U	3.9 U	1.6 U	6.35 U	12 U	4.4 UJ	1.49 U	3.65 U	9.9 U	4.9 U	4.72 U	1.49 U	1.19 U
1,2,3,6,7,8-HxCDF	4.67 U	2.65 J	1.4 U	2.3 U	1.6 U	3.99 U	12 U	4 UJ	1.34 U	5.16 U	5.94 U	4.63 U	4.46 U	1.34 U	1.33 U
1,2,3,7,8,9-HxCDD	6.49 U	1.73 U	2 U	3.6 U	1.7 U	7.28 U	12 U	4.9 UJ	1.62 U	3.41 U	19.4 U	6.44 U	6.2 U	1.62 U	1.09 U
1,2,3,7,8,9-HxCDF	4.97 U	2.71 U	1.8 U	2.8 U	1.7 U	6.31 U	12 U	5.5 UJ	2.54 U	4.44 U	11.4 U	4.92 U	4.74 U	2.55 U	1.32 U
1,2,3,7,8-PeCDD	5.7 U	2.11 U	1.5 U	5.5 U	7.43 U	8.73 U	12 U	6 U	1.98 U	2.73 U	6.63 U	5.65 U	5.45 U	1.98 U	1.18 U
1,2,3,7,8-PeCDF	3.2 U	3.65 J	1.3 U	3 U	1.6 U	6.23 U	12 U	6.9 J	2.58 U	3.21 U	5.25 U	3.17 U	3.06 U	2.59 U	1.34 U
2,3,4,6,7,8-HxCDF	5.16 U	2.15 U	1.5 U	2 U	1.7 U	4.66 U	12 U	3.6 UJ	2.01 U	6.4 U	19.6 U	5.12 U	4.93 U	2.02 U	1.24 U
2,3,4,7,8-PeCDF	3.89 U	3.08 J	1.3 U	2.1 U	1.9 U	6.3 U	12 U	4.7 UJ	2.17 U	3.79 U	27.6 U	3.86 U	3.72 U	2.17 U	1.31 U
2,3,7,8-TCDD	2.98 U	11	1.5 U	2.6 U	3.14 U	7.77 U	2.5 U	3.4 UJ	0.901 U	0.912 U	6.63 U	2.95 U	2.85 U	16	1.22 U
2,3,7,8-TCDF	3.79 U	0.931 U	4.5	1.6 U	2.2 U	6.89 U	2.5 U	4.33 UJ	0.874 U	1.63 U	5.54 U	3.76 U	3.62 U	0.875 U	2.92 U
OCDD	15.3 U	18 U	4.8 U	6.8 U	9.4 U	11.7 U	25 U	22.5 U	16.9 U	7 U	23.6 U	16.4 U	12.2 J	16.9 U	1.13 U
OCDF	51.6 U	2.25 U	3.7 U	7.4 U	3.6 U	14.7 U	25 U	9.5 U	2.11 U	5.77 U	22.7 U	51.1 U	49.3 U	2.12 U	1.16 U
Dioxin/Furan TEQ[a][2]	5.7 UT	14.4 JT	1.95 T	5.5 UT	7.44 JT	8.73 UT	12 UT	6.21 JT	1.98 UT	2.73 UT	8.28 UT	5.65 UT	5.45 JT	18 T	1.22 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-03-30R	RP-03-30R	RP-03-30R	RP-03-30R	RP-03-30R	RP-03-30R	RP-03-30R	RP-03-52R	RP-03-52R	RP-03-52R	RP-03-52R	RP-03-52R	RP-03-52R	RP-03-52R	RP-04-16
Sample_Date:	10/12/2000	4/10/2002	4/19/2004	4/19/2005	5/23/2007	6/27/2001	8/28/2006	10/12/2000	4/10/2002	4/19/2004	4/19/2005	5/23/2007	6/27/2001	8/28/2006	10/16/2017
Collection Depth (ft bgs):	23-28	23-28	23-28	23-28	23-28	23-28	23-28	46-51	46-51	46-51	46-51	46-51	46-51	46-51	5-15
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	4.1	8.67 U	11.6	12 U	3.01 U	8.81 U	5.38 U	101	8.75 U	7.88 U	12 U	4.12 U	8.81 U	5.24 U	1.1 U
1,2,3,4,6,7,8-HpCDF	1.5 U	6.76 U	17.9 U	12 U	3 U	7.62 U	7.52 U	4.2 U	6.83 U	17.9 U	12 U	2.95 U	7.62 U	7.31 U	1.14 U
1,2,3,4,7,8,9-HpCDF	2.1 U	6.19 U	12.7 U	12 U	3.21 U	10.9 U	7.08 U	5.8 U	6.25 U	12.7 U	12 U	3.16 U	10.9 U	6.89 U	1.13 U
1,2,3,4,7,8-HxCDD	1.7 U	9.71 U	6.63 U	12 U	2.54 U	14.6 U	4.26 U	3.6 U	9.81 U	6.63 U	12 U	2.5 U	14.6 U	4.15 U	0.906 U
1,2,3,4,7,8-HxCDF	1.2 U	5.71 U	3.1 U	12 U	1.06 U	2.1 J	3.97 U	3 U	2.5 J	17.5 U	12 U	1.04 U	11.5 U	3.86 U	1 U
1,2,3,6,7,8-HxCDD	1.6 U	8.86 U	8.27 U	12 U	1.53 U	9.9 U	4.89 U	6.6	2.5 U	8.27 U	12 U	1.5 U	9.9 U	4.75 U	0.957 U
1,2,3,6,7,8-HxCDF	1.1 U	5.24 U	2.8 U	12 U	1.37 U	5.94 U	4.61 U	2.8 U	2.4 U	8.94 U	12 U	1.35 U	5.94 U	4.49 U	1.04 U
1,2,3,7,8,9-HxCDD	1.6 U	8.86 U	14.4 U	12 U	1.66 U	3.4 J	6.42 U	3.5 U	4.4 J	14.4 U	12 U	1.64 U	19.4 U	6.24 U	0.881 U
1,2,3,7,8,9-HxCDF	1.5 U	10.6 U	30.7 U	12 U	2.61 U	11.4 U	4.91 U	3.7 U	3.8 U	30.7 U	12 U	2.57 U	11.4 U	4.77 U	1.03 U
1,2,3,7,8-PeCDD	1.2 U	8 U	7.5 U	12 U	2.03 UJ	6.63 U	5.63 U	2.9 U	2.4 J	7.5 U	12 U	1.99 U	6.63 U	5.48 U	1.17 U
1,2,3,7,8-PeCDF	1.1 U	7.05 U	4.52 U	12 U	2.65 U	2.9 U	3.16 U	2.3 U	3.3 J	4.52 U	12 U	2.61 U	5.25 U	3.07 U	1.07 U
2,3,4,6,7,8-HxCDF	1.2 U	6.95 U	21 U	12 U	2.07 U	19.6 U	5.1 U	3.1 U	3.1 J	21 U	12 U	2.03 U	19.6 U	4.96 U	0.966 U
2,3,4,7,8-PeCDF	1.1 U	5.9 U	5.58 U	12 U	2.22 UJ	27.6 U	3.85 U	2.3 U	2.1 J	5.58 U	12 U	2.19 U	27.6 U	3.74 U	1.05 U
2,3,7,8-TCDD	1.3 U	5.81 U	3.17 U	2.5 U	0.924 U	6.63 U	2.95 U	2.3 U	1.4 J	3.17 U	2.5 U	0.91 U	6.63 U	2.86 U	24.1
2,3,7,8-TCDF	1 U	4.29 U	6.06 U	2.5 U	0.896 U	5.54 U	3.74 U	1.6 U	4.33 U	6.06 U	2.5 U	0.882 U	5.54 U	3.64 U	2 J
OCDD	16.7	5.1 U	38.9 U	25 U	17.3 U	13 U	20.9 U	428	5.6 J	17.9 U	25 U	17 U	23.6 U	31 U	93.5 U
OCDF	2.9 U	18.5 U	17.4 U	25 U	2.17 U	22.7 U	50.9 U	13.3 U	18.7 U	17.4 U	25 U	2.13 U	22.7 U	49.5 U	0.998 U
Dioxin/Furan TEQ[a][2]	1.35 T	8 UT	7.62 T	12 UT	2.03 UJT	8.83 JT	5.63 UT	4.7 T	6.51 JT	7.5 UT	12 UT	1.99 UT	8.28 UT	5.48 UT	25.5 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-16	RP-04-41	RP-04-41	RP-04-41	RP-04-41	RP-04-41	RP-04-41
Sample_Date:	10/17/2006	10/4/2000	11/30/2006	4/18/2002	4/21/2004	4/25/2005	4/5/2000	5/30/2007	7/3/2001	10/17/2006	10/4/2000	11/30/2006	4/18/2002	4/21/2004	4/25/2005
Collection Depth (ft bgs):	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	5-15	35-40	35-40	35-40	35-40	35-40	35-40
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.75 U	3.5 U	2.73 U	4.8 J	7.81 U	12 U	2.76 U	5.12 J	5.7 J	3.87 J	8.8 U	2.77 U	3.1 J	956	12 U
1,2,3,4,6,7,8-HpCDF	5.17 J	1790	4.47 J	26.2 J	6.4 U	12 U	13.7	12 J	23.2 U	12.4 J	5.7 U	7.54 J	27.6 J	11400	64
1,2,3,4,7,8,9-HpCDF	2.93 U	2.4 U	2.91 U	6.19 U	12.6 U	12 U	1.88 U	3.12 U	7.7 U	3.51 J	7.4 U	2.96 U	6.19 U	441	12 U
1,2,3,4,7,8-HxCDD	2.32 U	2.4 U	2.3 U	9.71 U	6.57 U	12 U	2.94 U	5.02 J	11.4 U	17.8 J	6 U	2.34 U	9.71 U	113	12 U
1,2,3,4,7,8-HxCDF	2.14 J	1.5 U	2.25 J	3.7 J	17.3 U	12 U	1.22 U	6.06 J	4 U	33.5 J	4 U	0.973 U	3.8 U	1370	12 U
1,2,3,6,7,8-HxCDD	1.39 U	2.4 U	1.38 U	8.86 U	8.19 U	12 U	1.98 U	5.16 J	8.5 U	5.69 J	6 U	1.4 U	8.86 U	604	12 U
1,2,3,6,7,8-HxCDF	1.25 U	2.4 U	1.24 U	2.9 J	8.86 U	12 U	0.917 U	5.28 J	3.7 U	24.8 J	3.9 U	1.5 J	2.4 J	880	12 U
1,2,3,7,8,9-HxCDD	1.52 U	2.4 U	1.51 U	8.86 U	14.3 U	12 U	2.27 U	4.47 J	15.4 U	9.5 J	6 U	1.53 U	8.86 U	206	12 U
1,2,3,7,8,9-HxCDF	2.38 U	1.5 U	2.36 U	10.6 U	30.4 U	12 U	1.45 U	4.63 J	7.9 U	14.3 J	5.2 U	2.4 U	10.6 U	30.4 U	12 U
1,2,3,7,8-PeCDD	2.82 J	1.6 U	3.64 J	8 U	7.43 U	12 U	3.58 U	7.4 J	4.5 J	33.2 J	9.9	2.71 J	8 U	921	12 U
1,2,3,7,8-PeCDF	7.87 J	464 U	8.45 J	7.1 J	5.7 J	12 U	3.79 U	14.2 J	14 J	57.7	3.8 U	4.75 J	7 J	1480	12 U
2,3,4,6,7,8-HxCDF	1.88 U	1.5 U	1.87 U	4 J	20.8 U	12 U	1.07 U	2.01 U	3 U	22.8 J	4.3 U	1.9 U	3.5 J	993	12 U
2,3,4,7,8-PeCDF	9.19 J	1.3 U	8.14	7.5 J	4.2 U	12 U	3.83 U	11.6 J	7.3 U	79.3	3.8 U	4.31 J	7.2 J	2580	12 U
2,3,7,8-TCDD	365 J	17700	383 J	411	378	200	294	347	580	128 J	97.5	172 J	697	240000	1100
2,3,7,8-TCDF	0.818 U	476	0.812 U	15.8 U	7.5 J	2.5 U	2.37 U	16.8	20.5	0.821 U	2.1	0.825 U	18.2 U	3000	8.2 J
OCDD	15.8 U	1850 U	24 J	30.8 J	10.9 U	25 U	16.4 U	16.8 U	32.5 J	15.8 U	14 U	20.6 J	22.2 J	6420	53 J
OCDF	7.55 J	4770	7.48 J	71.1 J	13.4 J	25 U	39.6	20.7 J	65.5 J	19.8 J	28	28.2 J	88.2 J	26000000	220
Dioxin/Furan TEQ[a][2]	371 JT	17800 T	390 JT	423 JT	386 JT	212 T	298 T	363 JT	589 JT	200 JT	109 T	177 JT	708 JT	250000 T	1110 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-04-41	RP-04-41	RP-04-41	RP-04-48	RP-04-48	RP-04-48	RP-04-48	RP-04-48	RP-04-56	RP-04-56	RP-04-56	RP-04-56	RP-05-16	RP-05-16	RP-05-16
Sample_Date:	4/5/2000	5/31/2007	7/3/2001	10/17/2006	10/17/2006	11/30/2006	5/30/2007	9/18/2017	10/16/2006	11/30/2006	5/30/2007	9/18/2017	10/4/2000	11/29/2006	4/5/2000
Collection Depth (ft bgs):	35-40	35-40	35-40	43.5-48.5	43.5-48.5	43.5-48.5	43.5-48.5	43.5-48.5	51-55.5	51-55.5	51-55.5	51-55.5	5-15	5-15	5-15
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.55 U	2.96 UJ	8.5 UJ	2.79 U	2.82 U	4.26 J	2.98 U	4.14	3.17 J	2.73 U	2.99 U	1.23 U	5 U	2.78 U	5.08 U
1,2,3,4,6,7,8-HpCDF	11.7	2.95 UJ	36.9 J	2.78 U	2.81 U	2.75 U	2.97 U	47.9	2.79 U	2.72 U	2.98 U	0.691 U	2.8 U	2.77 U	2.58 U
1,2,3,4,7,8,9-HpCDF	2.64 U	3.16 UJ	7.7 UJ	2.98 U	3.01 U	2.95 U	3.18 U	1.9	2.98 U	2.91 U	3.19 U	0.687 U	3.7 U	2.97 U	3.63 U
1,2,3,4,7,8-HxCDD	2.45 U	2.5 UJ	11.4 UJ	2.36 U	2.38 U	2.33 U	2.52 U	1.21 U	3.34 J	2.31 U	2.53 U	1.19 U	3.5 U	2.35 U	3.66 U
1,2,3,4,7,8-HxCDF	2.1 U	1.04 UJ	6.5 U	0.98 U	0.991 U	0.97 U	1.05 U	5.17	3.05 J	0.959 U	1.05 U	1.15 U	2.8 U	0.976 U	2.35
1,2,3,6,7,8-HxCDD	1.65 U	1.5 UJ	8.5 UJ	1.41 U	1.43 U	1.4 U	1.51 U	1.99 UK	3.24 J	1.38 U	1.52 U	1.26 U	3.5 U	1.41 U	2.46 U
1,2,3,6,7,8-HxCDF	1.58 U	1.35 UJ	3.5 U	1.27 U	1.29 U	1.26 U	1.36 U	2.89	3.55 J	1.33 J	1.37 U	1.19 U	2.8 U	1.27 U	1.29 U
1,2,3,7,8,9-HxCDD	1.89 U	1.64 UJ	15.4 UJ	1.54 U	1.56 U	1.53 U	1.65 U	1.18 U	2.64 J	1.51 U	1.65 U	1.16 U	3.5 U	1.54 U	2.82 U
1,2,3,7,8,9-HxCDF	2.5 U	2.57 UJ	7.9 UJ	2.42 U	2.44 U	2.39 U	2.58 U	1.24 U	2.83 J	2.37 U	2.59 U	1.18 U	2.8 U	2.41 U	2.05 U
1,2,3,7,8-PeCDD	3.67 U	1.99 UJ	5.3 UJ	1.88 U	1.9 U	1.86 U	2.01 U	3.71	3.73 J	1.84 U	2.02 U	1.2 U	3.2 U	1.87 U	2.43 U
1,2,3,7,8-PeCDF	4.35 U	2.6 UJ	4.3 UJ	2.46 U	2.48 U	2.43 U	2.62 U	10.4 U	4.64 J	2.4 U	2.63 U	1.14 U	2.6 U	2.45 U	1.7 U
2,3,4,6,7,8-HxCDF	1.85 U	2.03 UJ	4.5 U	1.92 U	1.94 U	1.89 U	2.05 U	2.77	2.39 J	1.87 U	2.05 U	1.11 U	2.8 U	1.91 U	1.51 U
2,3,4,7,8-PeCDF	4.4 U	2.19 UJ	5.6 UJ	2.06 U	2.08 U	2.04 U	2.2 U	8.63	3.65 J	2.02 U	2.21 U	1.12 U	2.5 U	2.05 U	1.72 U
2,3,7,8-TCDD	228	0.909 UJ	928 J	89.1 J	78.9 J	61.4 J	52.2	1350	11.4 J	4.47 J	8.94 J	3.49	19.5	0.853 U	3.04 U
2,3,7,8-TCDF	1.56 U	0.881 UJ	25.2 J	0.831 U	0.84 U	0.822 U	2.71 J	1.41 J	2.52 J	0.813 U	0.892 U	4.81 J	1.2 U	0.828 U	1.61 U
OCDD	17 U	17 UJ	31.4 J	16 U	22 J	45.4 J	17.1 U	23.7	16.1 U	24.1 J	17.2 U	1.24 U	21.7	25.3 U	24.5 U
OCDF	36.2	2.13 UJ	119 J	2.01 U	3.08 J	5.29 J	2.15 U	116	4.45 J	1.97 U	2.16 U	1.15 U	6.3 U	2 U	5.84 U
Dioxin/Furan TEQ[a][2]	232 T	1.99 UJT	936 JT	91 JT	80.8 JT	63.3 JT	54.5 JT	1360 JT	18.8 JT	6.45 JT	11 JT	5.17 JT	22.7 T	1.87 UT	3.28 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-05-16	RP-05-16	RP-05-47	RP-05-47	RP-05-47	RP-05-47	RP-05-47	RP-05-65	RP-05-65	RP-05-65	RP-06-105	RP-06-105	RP-06-105	RP-06-105	RP-06-105
Sample_Date:	5/18/2007	9/14/2006	11/28/2006	5/18/2007	8/18/2008	8/21/2008	9/14/2006	11/28/2006	5/18/2007	9/14/2006	11/28/2006	5/16/2007	6/10/2009	7/17/2008	8/15/2008
Collection Depth (ft bgs):	5-15	5-15	37-47	37-47	37-47	37-47	37-47	60.3-64.5	60.3-64.5	60.3-64.5	100-105	100-105	100-105	100-105	100-105
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.91 U	2.75 U	2.72 U	2.91 U	3.65 U	6.86 U	2.92 U	2.74 U	2.98 U	2.85 U	3.02 U	3.11 U	6.56 U	3.75 U	3.62 U
1,2,3,4,6,7,8-HpCDF	2.9 U	2.74 U	2.72 U	2.9 U	1.59 U	2.99 U	2.91 U	2.73 U	2.97 U	2.84 U	2.74 U	3.1 U	2.56 U	1.64 U	1.58 U
1,2,3,4,7,8,9-HpCDF	3.1 U	2.93 U	2.91 U	3.1 U	2.9 U	5.45 U	3.11 U	2.92 U	3.17 U	3.04 U	2.94 U	3.32 U	2.15 U	2.98 U	2.88 U
1,2,3,4,7,8-HxCDD	2.46 U	2.32 U	2.3 U	2.46 U	1.49 U	2.81 U	2.46 U	2.31 U	2.51 U	2.41 U	2.32 U	2.63 U	5.12 U	1.54 U	1.48 U
1,2,3,4,7,8-HxCDF	1.02 U	0.964 U	0.957 U	1.02 U	2.74 U	5.16 U	1.02 U	0.962 U	1.05 U	1 U	0.966 U	1.09 U	5.32 U	2.82 U	2.72 U
1,2,3,6,7,8-HxCDD	1.47 U	1.39 U	1.38 U	1.47 U	2.15 U	4.04 U	1.48 U	1.39 U	1.51 U	1.45 U	1.39 U	1.58 U	3.71 U	2.21 U	2.13 U
1,2,3,6,7,8-HxCDF	1.33 U	1.25 U	1.24 U	1.33 U	2.06 U	3.86 U	1.33 U	1.25 U	1.36 U	1.3 U	1.25 U	1.42 U	5.25 U	2.11 U	2.04 U
1,2,3,7,8,9-HxCDD	1.61 U	1.52 U	1.51 U	1.61 U	1.46 U	2.75 U	1.61 U	1.51 U	1.64 U	1.58 U	1.52 U	1.72 U	3.46 U	1.51 U	1.45 U
1,2,3,7,8,9-HxCDF	2.52 U	2.38 U	2.36 U	2.52 U	3.15 U	5.92 U	2.53 U	2.37 U	2.58 U	2.47 U	2.38 U	2.7 U	4.52 U	3.24 U	3.13 U
1,2,3,7,8-PeCDD	1.96 U	1.85 U	1.83 U	1.96 U	0.914 U	1.72 U	1.96 U	1.84 U	2 U	1.92 U	1.85 U	2.1 U	2.77 U	0.941 U	0.908 U
1,2,3,7,8-PeCDF	2.56 U	2.42 U	2.4 U	2.56 U	2.19 U	4.11 U	2.57 U	2.41 U	2.62 U	2.51 U	2.42 U	2.74 U	3.26 U	2.25 U	2.17 U
2,3,4,6,7,8-HxCDF	2 U	1.88 U	1.87 U	2 U	2.62 U	4.93 U	2 U	1.88 U	2.04 U	1.96 U	1.89 U	2.14 U	6.51 U	2.7 U	2.6 U
2,3,4,7,8-PeCDF	2.15 U	2.03 U	2.01 U	2.15 U	2.21 U	4.15 U	2.15 U	2.02 U	2.2 U	2.11 U	2.03 U	2.3 U	3.85 U	2.27 U	2.19 U
2,3,7,8-TCDD	0.893 U	0.843 U	0.836 U	0.893 U	0.888 U	1.67 U	0.896 U	0.84 U	0.913 U	0.875 U	0.844 U	0.956 U	0.927 U	0.864 U	0.834 U
2,3,7,8-TCDF	0.866 U	0.818 U	0.811 U	0.866 U	0.497 U	0.934 U	0.869 U	0.815 U	0.886 U	0.849 U	0.819 U	0.927 U	1.66 U	0.511 U	0.493 U
OCDD	16.7 U	24.3 J	15.7 U	16.7 U	1.68 U	3.16 U	20.3 J	15.7 U	17.1 U	16.4 U	24 U	17.9 U	11.4 U	2.83 J	24.7 J
OCDF	2.09 U	1.98 U	1.96 U	2.09 U	2.65 U	4.99 U	2.1 U	1.97 U	2.14 U	2.05 U	1.98 U	2.24 U	5.87 U	2.73 U	2.64 U
Dioxin/Furan TEQ[a][2]	1.96 UT	1.86 JT	1.83 UT	1.96 UT	0.914 UT	1.72 UT	1.97 JT	1.84 UT	2 UT	1.92 UT	1.85 UT	2.1 UT	2.77 UT	0.942 JT	0.915 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-06-105	RP-06-30	RP-06-30	RP-06-30	RP-06-30	RP-06-30	RP-06-30	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-87
Sample_Date:	9/19/2017	10/12/2000	11/27/2006	3/27/2006	5/16/2007	6/10/2009	7/26/2006	10/12/2000	10/12/2000	11/27/2006	3/27/2006	4/10/2002	4/14/2000	5/16/2007	5/16/2007
Collection Depth (ft bgs):	100-105	24.5-29.5	24.5-29.5	24.5-29.5	24.5-29.5	24.5-29.5	24.5-29.5	81-86	81-86	81-86	81-86	81-86	81-86	81-86	81-86
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	FD
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.19 U	2.8 U	2.79 U	2.8 U	3.09 U	6.23 U	5.27 U	2.5 U	3.7	5.49 U	3 U	8.67 U	36.3 U	2.9 U	3 U
1,2,3,4,6,7,8-HpCDF	1.15 U	1.6 U	2.78 U	1.7 U	3.08 U	2.43 U	7.36 U	2.1 U	1.6	2.74 U	2.2 U	6.76 U	35.3 U	2.89 U	2.99 U
1,2,3,4,7,8,9-HpCDF	1.15 U	1.8 U	2.98 U	2.5 U	3.29 U	2.04 U	6.94 U	1.7 U	1.7 U	2.93 U	3.3 U	6.19 U	49.7 U	3.09 U	3.2 U
1,2,3,4,7,8-HxCDD	1.1 U	1.5 U	2.36 U	2.8 U	2.61 U	4.87 U	4.17 U	1.6 U	1.3 U	4.94 U	3.2 U	9.71 UJ	62.4 U	2.45 U	2.54 U
1,2,3,4,7,8-HxCDF	1.16 U	1.2 U	0.98 U	2 U	1.08 U	5.05 U	3.88 U	2.1	2.1	5.24 J	2.6 U	1.8 U	39.2 U	1.02 U	1.05 U
1,2,3,6,7,8-HxCDD	1.17 U	1.7 U	1.41 U	2.9 U	1.56 U	3.52 U	4.78 U	1.6 U	1.3 U	4.42 U	3.1 U	8.86 U	42 U	1.47 U	1.52 U
1,2,3,6,7,8-HxCDF	1.2 U	1.2 U	1.27 U	1.7 U	1.41 U	4.99 U	4.52 U	1 U	0.9 U	4.96 J	2 U	5.24 UJ	29.4 U	1.32 U	1.37 U
1,2,3,7,8,9-HxCDD	1.07 U	1.7 U	1.54 U	2.7 U	1.71 U	3.29 U	6.28 U	1.6 U	1.3 U	4.96 U	2.9 U	2.1 J	48.1 U	1.6 U	1.66 U
1,2,3,7,8,9-HxCDF	1.19 U	1.5 U	2.42 U	1.8 U	2.68 U	4.29 U	4.8 U	1.4 U	1.2 U	4.79 J	2.5 U	2.1 J	46.5 U	2.51 U	2.6 U
1,2,3,7,8-PeCDD	1.18 U	1.2 U	1.88 U	4.9 U	2.08 U	2.63 U	5.51 U	1.1 U	1.1 U	6.43 J	5.7 U	8 UJ	80.6 U	1.95 U	2.02 U
1,2,3,7,8-PeCDF	1.34 U	1 U	2.46 U	2.4 U	2.72 U	3.1 U	3.1 U	1 U	0.9 U	6.96 J	2.8 U	7.05 U	55.2 U	2.55 U	2.64 U
2,3,4,6,7,8-HxCDF	1.12 U	1.2 U	1.92 U	1.6 U	2.12 U	6.18 U	4.99 U	1.2 U	1.8	4.25 J	1.8 U	6.95 UJ	34.4 U	1.99 U	2.06 U
2,3,4,7,8-PeCDF	1.3 U	1 U	2.06 U	2.4 U	2.28 U	3.66 U	3.76 U	0.9 U	0.9 U	6.06 J	2.8 U	5.9 U	55.8 U	2.14 U	2.22 U
2,3,7,8-TCDD	1.2 U	3.3 U	0.857 U	2.4 U	0.948 U	0.88 U	2.88 U	1.1 U	1.1 U	0.843 U	2.6 U	5.81 U	40.2 U	0.89 U	0.922 U
2,3,7,8-TCDF	1.17 U	1 U	0.831 U	1.7 U	0.919 U	1.57 U	3.67 U	0.9 U	2.5	0.818 U	1.8 U	4.29 U	102 U	0.864 U	0.894 U
OCDD	111 U	10.4	55.7 U	12 U	17.7 U	6.76 U	16.9 U	18.2	28	30.6 U	13 U	11.1 U	58.4 U	16.7 U	17.3 U
OCDF	111 U	3.3 U	2.01 U	4.5 U	2.22 U	5.57 U	49.9 U	2.9 U	5.6	8.81 U	5.9 U	18.5 U	78.9 U	2.09 U	2.16 U
Dioxin/Furan TEQ[a][2]	1.2 UT	3.3 T	1.88 UT	4.9 UT	2.08 UT	2.63 UT	5.51 UT	1.32 T	1.8 T	11.2 JT	5.7 UT	8.42 JT	80.6 UT	1.95 UT	2.02 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF														
Location:	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-87	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95	RP-06-95
Sample_Date:	6/10/2009	6/27/2001	7/17/2008	7/26/2006	8/15/2008	11/27/2006	12/12/2017	3/21/2018	5/16/2007	6/10/2009	6/7/2018	7/17/2008	8/15/2008	9/14/2017	9/14/2017
Collection Depth (ft bgs):	81-86	81-86	81-86	81-86	81-86	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5	89.5-94.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6.55 U	8.81 U	3.67 U	5.32 U	3.91 U	2.75 U	1.01 U	0.974 U	2.93 U	6.1 U	0.867 U	3.76 U	3.46 U	2.02	1.16 U
1,2,3,4,6,7,8-HpCDF	2.55 U	7.62 U	1.6 U	7.43 U	1.7 U	2.74 U	1 U	1.05 U	2.92 U	2.38 U	1.04 U	1.64 U	1.51 U	1.26 U	1.21 U
1,2,3,4,7,8,9-HpCDF	2.15 U	10.9 U	2.92 U	7 U	3.1 U	2.94 U	0.99 U	1.05 U	3.13 U	2 U	1.05 U	2.99 U	2.75 U	1.26 U	1.2 U
1,2,3,4,7,8-HxCDD	5.11 U	14.6 U	1.5 U	4.21 U	1.6 U	2.32 U	0.96 U	1.03 U	2.47 U	4.76 U	0.982 U	1.54 U	1.42 U	1.03 U	1.1 U
1,2,3,4,7,8-HxCDF	5.31 U	11.5 U	2.76 U	3.92 U	2.94 U	0.966 U	1.1 U	1.11 U	1.03 U	4.94 U	1.06 U	2.83 U	2.6 U	1.25 U	1.13 U
1,2,3,6,7,8-HxCDD	3.7 U	9.9 U	2.16 U	4.82 U	2.3 U	1.39 U	0.977 U	0.982 U	1.49 U	3.45 U	0.994 U	2.21 U	2.04 U	1.09 U	1.16 U
1,2,3,6,7,8-HxCDF	5.24 U	5.94 U	2.07 U	4.56 U	2.2 U	1.25 U	1.1 U	1.06 U	1.34 U	4.88 U	1.12 U	2.12 U	1.95 U	1.29 U	1.17 U
1,2,3,7,8,9-HxCDD	3.45 U	19.4 U	1.47 U	6.34 U	1.57 U	1.52 U	0.953 U	1.09 U	1.62 U	3.22 U	1.04 U	1.51 U	1.39 U	1 U	1.07 U
1,2,3,7,8,9-HxCDF	4.51 U	11.4 U	3.17 U	4.85 U	3.37 U	2.38 U	1.03 UJ	1.1 U	2.54 U	4.2 U	1.12 U	3.25 U	2.99 U	1.28 U	1.16 U
1,2,3,7,8-PeCDD	2.76 U	6.63 U	0.92 UJ	5.56 U	0.979 U	1.85 U	0.916 U	1.06 U	1.97 U	2.57 U	1.06 U	0.943 U	0.868 U	1.12 U	1.28 U
1,2,3,7,8-PeCDF	3.26 U	5.25 U	2.2 UJ	9.23 J	2.34 U	2.42 U	1.06 U	1.15 U	2.58 U	3.03 U	0.913 U	2.26 U	2.08 U	1.13 U	1.28 U
2,3,4,6,7,8-HxCDF	6.49 U	19.6 U	2.64 U	5.04 U	2.81 U	1.89 U	1.02 U	1.03 U	2.01 U	6.05 U	1.04 U	2.7 U	2.49 U	1.2 U	1.09 U
2,3,4,7,8-PeCDF	3.84 U	27.6 U	2.22 U	6.76 J	2.36 U	2.03 U	1.06 U	1.13 U	2.16 U	3.58 U	0.808 U	2.28 U	2.1 U	1.1 U	1.25 U
2,3,7,8-TCDD	0.925 U	6.63 U	0.845 U	2.91 U	0.951 U	0.844 U	1.08 U	1.05 U	0.899 U	0.861 U	1.37 U	0.866 U	0.843 U	1.23 U	1.2 U
2,3,7,8-TCDF	1.65 U	5.54 U	0.5 U	5.42 NJ	0.532 U	0.819 U	1.09 U	0.991 U	0.872 U	1.54 U	0.747 U	0.512 U	0.471 U	1.32 U	1.22 U
OCDD	7.1 U	23.6 U	1.69 U	14.6 U	1.8 U	16.9 U	1.01 U	0.976 U	16.8 U	6.61 U	2.66 U	4.18 J	1.59 U	111 U	110 U
OCDF	5.85 U	22.7 U	2.67 U	50.3 U	2.84 U	1.98 U	1.02 U	0.905 U	2.11 U	5.45 U	1.07 U	2.74 U	2.52 U	2.57 J	1.19 UJ
Dioxin/Furan TEQ[a][2]	2.76 UT	8.28 UT	0.92 UJT	8.41 JT	0.979 UT	1.85 UT	1.08 UJT	1.06 UT	1.97 UT	2.57 UT	1.37 UT	0.944 JT	0.868 UT	1.25 JT	1.28 UJT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	BNSF											GOU			
Location:	RP-12-11	RP-12-25	RP-12-50	RP-12-50	RP-16-25	RP-16-25	RP-16-25	RP-16-25	RP-16-40	RP-16-40	RP-16-40	MW-42F	MW-42F	NWN-11-24	NWN-11-24
Sample_Date:	9/18/2007	9/17/2007	6/12/2009	9/17/2007	10/13/2006	12/1/2006	5/23/2007	9/16/2017	10/11/2006	12/1/2006	5/23/2007	4/6/2017	9/26/2016	10/31/2016	4/19/2017
Collection Depth (ft bgs):	6-11	20-25	45-50	45-50	10-25	10-25	10-25	10-25	30-40	30-40	30-40	26-31	26-31	14-24	14-24
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	9.4 J	2.94 U	6.8 U	3.01 U	2.84 U	5.68 J	6.31 J	1.13 U	2.92 U	2.76 U	2.9 U	1.06 U	1.57 U	1.73 J	1.06 U
1,2,3,4,6,7,8-HpCDF	3.12 UJ	2.94 U	2.65 U	3 U	5.41 J	15.5 J	2.94 U	1.22 U	2.91 U	2.75 U	3.02 U	0.527 U	0.592 U	0.354 U	0.37 U
1,2,3,4,7,8,9-HpCDF	3.34 UJ	3.14 U	2.23 U	3.21 U	3.03 U	2.92 U	3.15 U	1.22 U	3.12 U	2.95 U	3.1 U	0.682 U	0.878 U	0.54 U	0.514 U
1,2,3,4,7,8-HxCDD	2.65 UJ	2.49 U	5.31 U	2.54 U	2.4 U	2.31 U	2.49 U	1.18 U	2.47 U	2.33 U	2.45 U	0.822 U	0.961 U	0.519 U	0.756 U
1,2,3,4,7,8-HxCDF	1.1 UJ	1.03 U	5.51 U	1.06 U	1.13 J	1.65 J	1.04 U	1.13 U	1.03 U	0.971 U	1.35 U	0.649 U	0.529 U	0.377 U	0.492 U
1,2,3,6,7,8-HxCDD	1.59 UJ	1.49 U	3.84 U	1.52 U	1.44 U	1.39 U	1.5 U	1.24 U	1.48 U	1.4 U	1.47 U	0.838 U	0.969 U	0.498 U	0.738 U
1,2,3,6,7,8-HxCDF	1.43 UJ	1.34 U	5.44 U	1.37 U	1.3 U	1.25 U	1.35 U	1.17 U	1.33 U	1.26 U	1.32 U	0.613 U	0.523 U	0.361 U	0.498 U
1,2,3,7,8,9-HxCDD	1.73 UJ	1.63 U	3.59 U	1.66 U	1.57 U	1.51 U	1.63 U	1.14 U	1.61 U	1.53 U	1.6 U	0.852 U	0.99 U	0.519 U	0.765 U
1,2,3,7,8,9-HxCDF	2.72 UJ	2.55 U	4.68 U	2.61 U	2.46 U	2.37 U	2.56 U	1.16 U	2.53 U	2.4 U	2.52 U	0.804 U	0.758 U	0.507 U	0.714 U
1,2,3,7,8-PeCDD	2.11 UJ	1.98 U	2.87 U	2.02 U	1.91 U	1.84 U	1.99 U	1.16 U	1.97 U	1.86 U	1.95 U	1.06 U	0.668 U	0.569 U	0.696 U
1,2,3,7,8-PeCDF	2.76 UJ	2.59 U	3.38 U	2.65 U	2.5 U	2.41 U	2.6 U	1.27 U	2.57 U	2.43 U	2.55 U	1.15 U	0.602 U	0.461 UJK	0.53 U
2,3,4,6,7,8-HxCDF	2.15 UJ	2.02 U	6.74 U	2.06 U	1.95 U	1.88 U	2.03 U	1.09 U	2 U	1.9 U	1.99 U	0.613 U	0.521 U	0.371 U	0.51 U
2,3,4,7,8-PeCDF	2.31 UJ	2.17 U	3.99 U	2.22 U	2.61 J	7.1 J	5.9E+09 U	1.24 U	2.16 U	2.04 U	2.14 U	0.976 U	0.571 U	0.296 U	0.473 U
2,3,7,8-TCDD	0.962 UJ	0.904 U	0.961 U	6.49 J	22.7 J	75.1	1290	38.3	5.6 J	5.51 J	0.891 U	1.77 U	0.835 U	0.511 U	0.874 U
2,3,7,8-TCDF	0.933 UJ	0.877 U	1.72 U	0.895 U	0.847 U	69.3	16.9	1.14 U	0.87 U	0.823 U	1.9 J	2.53 U	1.1 U	0.567 U	1.13 U
OCDD	68.3 J	16.9 U	7.37 U	17.3 U	16.3 U	55.3 J	20.8 J	1.22 U	18.8 J	15.9 U	16.7 U	1.41 U	3.99 U	11 UJ	1.34 U
OCDF	2.26 UJ	2.12 U	6.08 U	2.16 U	8.77 J	33.3 J	12.6 J	1.25 U	2.1 U	1.99 U	2.09 U	1.19 U	3.3 U	1.98 U	1.81 U
Dioxin/Furan TEQ[a][2]	2.22 JT	1.98 UT	2.87 UT	8.51 JT	25.6 JT	86.4 JT	1.77E+09 JT	39.5 T	7.58 JT	7.37 JT	2.14 JT	1.77 UT	0.835 UT	0.586 JT	0.874 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	NWN-1-20	NWN-13-106	NWN-13-106	NWN-13-23	NWN-13-23	NWN-13-73	NWN-13-73	NWN-2-20	NWN-2-20	NWN-3-17	NWN-7-30	NWN-7-30	NWN-9-31	NWN-9-31	OW-1F
Sample_Date:	10/27/2016	10/27/2016	4/17/2017	10/19/2016	4/17/2017	10/19/2016	4/17/2017	10/19/2016	4/18/2017	4/18/2017	10/27/2016	4/18/2017	10/31/2016	4/18/2017	4/7/2017
Collection Depth (ft bgs):	10-20	96-106	96-106	13-23	13-23	63-73	63-73	10-20	10-20	7-17	20-30	20-30	16-31	16-31	30-35
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	551	0.411 UJK	1.27 U	11 UJ	4.88 J	0.957 UJ	1.26 U	33.8 J	1.68 U	0.989 U	5.86 U	1.2 U	2.66 J	1.47 U	2.19 U
1,2,3,4,6,7,8-HpCDF	39.8 J	0.196 U	0.542 U	1.65 UJ	0.891 U	0.266 U	0.517 U	13.7 J	0.728 U	0.648 U	2.78 U	0.379 U	0.617 UJ	0.412 U	0.682 U
1,2,3,4,7,8,9-HpCDF	4.02 U	0.241 U	0.769 U	0.582 U	1.19 U	0.362 U	0.715 U	2.04 UJK	1.04 U	0.959 U	3.95 U	0.534 U	0.704 U	0.58 U	0.955 U
1,2,3,4,7,8-HxCDD	4.15 U	0.321 U	1.02 U	0.68 U	0.928 U	0.436 U	0.717 U	0.849 U	1.1 U	0.979 U	4.33 U	0.844 U	0.817 U	0.872 U	1.65 U
1,2,3,4,7,8-HxCDF	4.59 J	0.171 U	0.672 U	0.523 U	0.574 U	0.245 U	0.527 U	4.26 J	0.573 U	0.499 U	3.05 U	0.548 U	0.557 U	0.523 U	1.01 U
1,2,3,6,7,8-HxCDD	12.1 J	0.299 U	1.03 U	0.682 U	0.933 U	0.425 U	0.657 U	1.54 J	0.973 U	0.861 U	3.72 U	0.814 U	0.811 U	0.806 U	1.63 U
1,2,3,6,7,8-HxCDF	4.09 J	0.183 U	0.636 U	0.512 U	0.543 U	0.241 U	0.515 U	0.811 J	0.563 U	0.509 U	2.87 U	0.574 U	0.561 U	0.5 U	1.01 U
1,2,3,7,8,9-HxCDD	8.82 UJK	0.319 U	1.06 U	0.696 U	0.955 U	0.438 U	0.702 U	0.865 U	1.06 U	0.94 U	4.1 U	0.85 U	0.833 U	0.859 U	1.68 U
1,2,3,7,8,9-HxCDF	3.71 J	0.411 UJK	0.92 U	0.78 U	0.766 U	0.536 UJ	0.746 U	1.35 UJ	0.8 U	0.711 U	4.73 U	0.778 U	0.773 U	0.764 U	1.33 U
1,2,3,7,8-PeCDD	2.75 UJK	0.293 U	0.718 U	0.465 U	0.694 U	0.383 U	0.799 U	0.476 U	0.823 U	0.652 U	3.85 U	0.667 U	0.53 U	0.573 U	1.26 U
1,2,3,7,8-PeCDF	4.95 J	0.313 J	0.819 U	0.725 UJ	0.778 U	0.421 UJ	0.562 U	0.998 UJ	0.688 U	0.832 U	3.41 U	0.564 U	0.617 UJK	0.703 U	1.17 U
2,3,4,6,7,8-HxCDF	3.62 J	0.177 U	0.647 U	0.559 U	0.554 U	0.253 U	0.525 U	1.31 J	0.591 U	0.525 U	3.05 U	0.526 U	0.555 U	0.565 U	1.02 U
2,3,4,7,8-PeCDF	5.53 UJ	0.17 U	0.657 U	0.382 U	0.669 U	0.268 U	0.474 U	1.14 UJ	0.557 U	0.724 U	2.89 U	0.473 U	0.509 U	0.619 U	1 U
2,3,7,8-TCDD	2.01 U	0.26 U	1.35 U	0.745 J	1.14 U	0.477 U	1.06 U	0.464 U	1.09 U	1.13 U	5.19 U	1 U	0.549 U	0.865 U	2.65 U
2,3,7,8-TCDF	2.01 U	0.278 U	1.91 U	0.531 U	1.62 U	0.524 U	1.73 U	0.643 U	1.56 U	1.51 U	10.1 U	1.07 U	0.594 U	1.15 U	4.05 U
OCDD	3700	1.41 UJK	1.6 U	63.2 UJ	34 J	3.89 UJ	1.19 U	224	8.83 J	1.88 UJK	11.7 U	1.08 U	15.5 UJ	7.75 J	1.85 U
OCDF	205 J	0.739 U	1.94 U	5.23 J	1.98 UJK	2.28 U	2.02 U	45.9 J	1.54 U	1.76 U	16.5 U	1.66 U	1.99 U	1.97 U	3.32 U
Dioxin/Furan TEQ[a][2]	12.8 JT	0.302 JT	1.35 UT	1.21 JT	1.2 JT	0.477 UJT	1.06 UT	1.82 JT	1.09 JT	1.13 UJT	5.19 UT	1 UT	0.576 JT	0.867 JT	2.65 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	OW-2F	OW-2F	PW-01L	PW-01L	PW-01L	PW-01L	PW-01L	PW-01L	PW-01L	PW-01L	PW-01UB	PW-01UB	PW-01Ub	PW-02L	PW-02L
Sample_Date:	10/17/2016	4/7/2017	3/12/2018	4/6/2017	4/6/2017	6/30/2016	9/21/2017	9/24/2018	9/26/2016	9/26/2016	4/6/2017	9/21/2017	9/26/2016	4/6/2017	9/21/2017
Collection Depth (ft bgs):	25.6-30.6	25.6-30.6	114.8-134.8	114.8-134.8	114.8-134.8	114.8-134.8	114.8-134.8	114.8-134.8	114.8-134.8	114.8-134.8	64.8-79.8	64.8-79.8	64.8-79.8	120.1-140.1	120.1-140.1
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	9.05 UJ	2.17 U	0.78 U	0.881 U	1.13 U	24.2 U	1.63 U	0.206 U	1.95 U	1.78 U	1.04 U	1.25 U	1.52 U	2750	2200
1,2,3,4,6,7,8-HpCDF	1.04 UJ	0.751 U	0.572 U	0.37 U	0.427 U	24.2 U	0.404 U	4.57 J	0.751 U	0.597 U	0.332 U	0.538 U	0.61 U	126	117 J
1,2,3,4,7,8,9-HpCDF	0.691 U	1.08 U	0.718 U	0.503 U	0.578 U	24.2 U	0.62 U	0.736 J	1.12 U	0.898 U	0.454 U	0.82 U	0.868 U	6.98 UJK	5.32 J
1,2,3,4,7,8-HxCDD	1.07 U	1.37 U	0.6 U	0.824 U	1.04 U	24.2 U	0.773 U	0.29 U	1.09 U	1.16 U	0.861 U	1.97 U	0.908 U	4.95 UJK	3.12 J
1,2,3,4,7,8-HxCDF	0.672 UJK	0.923 U	0.381 U	0.44 U	0.611 U	24.2 U	0.595 U	0.682 J	0.611 U	0.541 U	0.595 U	0.766 U	0.487 U	1.91 UJK	1.45 UJK
1,2,3,6,7,8-HxCDD	0.995 U	1.29 U	0.649 U	0.751 U	1.02 U	24.2 U	0.736 U	0.404 J	1.07 U	1.18 U	0.838 U	1.95 U	0.84 U	31.3 J	25.6 J
1,2,3,6,7,8-HxCDF	0.403 U	0.871 U	0.388 U	0.438 U	0.611 U	24.2 U	0.605 U	0.353 J	0.619 U	0.549 U	0.599 U	0.73 U	0.485 U	0.871 U	1.11 U
1,2,3,7,8,9-HxCDD	1.05 U	1.36 U	0.574 U	0.806 U	1.05 U	24.2 U	0.773 U	0.535 J	1.11 U	1.2 U	0.873 U	2.01 U	0.893 U	11.1 J	7.56 J
1,2,3,7,8,9-HxCDF	0.826 UJ	1.19 U	0.479 U	0.566 U	0.96 UJ	24.2 U	0.836 U	0.331 U	0.905 U	0.789 U	0.764 U	0.985 U	0.715 U	1.34 UJ	2.66 UJ
1,2,3,7,8-PeCDD	0.634 UJ	1.28 U	0.8 U	0.753 U	0.68 U	24.2 U	0.733 U	0.578 U	0.715 U	0.769 U	0.795 U	0.751 U	0.692 U	2.1 J	1.89 UJK
1,2,3,7,8-PeCDF	0.472 U	1.19 U	0.862 U	0.731 U	1.05 U	24.2 U	0.555 U	0.476 U	0.742 U	0.516 U	0.704 U	0.663 U	0.583 U	1.1 U	1.11 UJK
2,3,4,6,7,8-HxCDF	0.447 U	0.872 U	0.37 U	0.436 U	0.635 U	24.2 U	0.645 U	0.284 U	0.606 U	0.543 U	0.588 U	0.743 U	0.511 U	1.2 UJK	1.32 J
2,3,4,7,8-PeCDF	0.424 U	0.968 U	0.88 U	0.619 U	0.923 U	24.2 U	0.494 U	0.451 U	0.713 U	0.52 U	0.638 U	0.582 U	0.552 U	0.996 U	0.937 UJK
2,3,7,8-TCDD	0.553 U	2.21 U	3.59 U	1.19 U	1.46 U	4.84 U	1.52 U	1.04 U	0.851 U	0.846 U	1.27 U	1.34 U	0.827 U	2.4 U	3.54 UJ
2,3,7,8-TCDF	0.655 U	4.05 U	2.4 U	1.93 U	2.33 U	4.84 U	1.63 U	0.661 U	1.03 U	0.969 U	2.15 U	1.51 U	1.07 U	3.01 U	3.25 U
OCDD	44.4 UJ	3.64 UJK	2.02 U	0.883 U	1.19 U	48.4 U	1.75 U	57.2	3.03 U	3.32 U	0.797 U	1.74 U	3.14 U	19700	16000
OCDF	2.44 U	3.7 U	2.06 U	1.59 U	1.82 U	48.4 U	1.76 U	30 J	3.16 U	2.84 U	1.63 U	1.73 U	2.73 U	891	737
Dioxin/Furan TEQ[a][2]	0.634 UJT	2.21 UJT	3.59 UT	1.19 UT	1.46 UJT	24.2 UT	1.52 UT	1.32 JT	0.851 UT	0.846 UT	1.27 UT	1.34 UT	0.827 UT	43.7 JT	35.5 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	PW-02L	PW-02U	PW-02U	PW-02U	PW-02U	RP-11-160	RP-11-160	RP-11-160	RP-11-160	RP-11-160	RP-11-160	RP-11-216	RP-11-216	RP-11-216	RP-11-216
Sample_Date:	9/26/2016	4/6/2017	9/21/2017	9/21/2017	9/26/2016	3/20/2018	3/22/2006	5/9/2007	8/14/2006	9/13/2017	9/5/2007	1/7/2010	11/14/2005	11/15/2005	11/21/2005
Collection Depth (ft bgs):	120.1-140.1	57.8-72.8	57.8-72.8	57.8-72.8	57.8-72.8	150-160	150-160	150-160	150-160	150-160	150-160	211-216	27-31	96-100	210-216
Sample Type	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2490	0.877 U	0.939 U	1.92 U	2.05 U	0.745 U	5.3 U	3.07 U	5.27 U	1.77 U	2.9 U	6.59 UJ	0.962 U	7.47 J	8.87 J
1,2,3,4,6,7,8-HpCDF	108	0.469 U	0.545 U	0.881 U	1.08 U	0.315 U	3 U	3.06 U	7.36 U	0.802 U	2.89 U	2.57 UJ	0.876 U	0.69 J	0.495 U
1,2,3,4,7,8,9-HpCDF	5.5 J	0.616 U	0.818 U	1.38 U	1.52 U	0.444 U	4.2 U	3.28 U	6.93 U	1.28 U	3.1 U	2.16 UJ	1.03 U	1.01 U	1.01 U
1,2,3,4,7,8-HxCDD	3.95 U	0.825 U	0.672 U	1.56 U	1.77 U	0.467 U	4.8 U	2.6 U	4.17 U	1.79 U	2.45 U	5.15 UJ	0.873 U	0.532 U	0.857 U
1,2,3,4,7,8-HxCDF	2.95 U	0.481 U	0.421 U	0.914 U	1.07 U	0.302 U	3.8 U	1.08 U	3.88 U	0.881 U	1.02 U	5.34 UJ	0.825 U	0.557 U	1.41 U
1,2,3,6,7,8-HxCDD	28.9 J	0.738 U	0.65 U	1.51 U	1.77 U	0.434 U	5 U	1.56 U	4.78 U	1.79 U	1.47 U	3.72 UJ	1.73 U	0.628 U	0.506 U
1,2,3,6,7,8-HxCDF	2.44 U	0.473 U	0.411 U	0.9 U	1.09 U	0.302 U	3.1 U	1.4 U	4.51 U	0.907 U	1.32 U	5.27 UJ	1.34 U	0.511 U	1.31 U
1,2,3,7,8,9-HxCDD	14.3 UJK	0.798 U	0.678 U	1.57 U	1.82 U	0.463 U	4.6 U	1.7 U	6.28 U	1.84 U	1.6 U	3.48 UJ	2 U	0.858 U	1.05 J
1,2,3,7,8,9-HxCDF	2.97 UJ	0.602 U	0.534 U	1.22 U	1.49 U	0.552 UJ	3.3 U	2.66 U	4.8 U	1.31 U	2.52 U	4.54 UJ	1.07 U	1.05 U	1.05 U
1,2,3,7,8-PeCDD	2.12 U	0.612 U	0.726 U	1.04 U	1.82 U	0.475 U	3.7 U	2.07 U	5.51 U	1.48 U	1.95 U	2.78 UJ	0.776 U	0.761 U	0.761 U
1,2,3,7,8-PeCDF	1.56 U	0.879 U	0.66 U	1.31 U	1.48 U	0.384 U	2.9 U	2.7 U	3.09 U	1.25 U	2.55 U	3.28 UJ	0.527 J	1.38 U	1.38 U
2,3,4,6,7,8-HxCDF	2.06 U	0.461 U	0.428 U	0.933 U	1.07 U	0.302 U	2.9 U	2.11 U	4.99 U	0.939 U	1.99 U	6.54 UJ	1.29 U	1.27 U	1.27 U
2,3,4,7,8-PeCDF	1.36 U	0.724 U	0.539 U	1.1 U	1.34 U	0.327 U	2.8 U	2.27 U	3.76 U	1.16 U	2.14 U	3.87 UJ	0.547 J	0.612 U	1.3 U
2,3,7,8-TCDD	5.6 UJ	1.3 U	1.47 U	2.09 U	2.42 U	0.877 U	1.6 U	0.944 U	2.88 U	1.84 U	0.891 U	0.931 UJ	0.466 U	0.732 U	0.712 U
2,3,7,8-TCDF	4.99 U	2.11 U	1.57 U	2.44 U	2.44 U	0.741 U	3 U	0.915 U	3.66 U	2.02 U	0.865 U	1.66 UJ	0.436 U	0.428 U	0.428 U
OCDD	18100	0.857 U	1.61 U	3.56 U	3.9 U	0.927 UJ	9.1 J	17.7 U	8.66 U	5.14 U	16.7 U	7.15 UJ	4.95 U	62.1 J	90.5 J
OCDF	824	1.49 U	1.7 U	4.24 U	4.27 U	1.2 U	6.9 U	2.21 U	49.8 U	4.83 U	2.09 U	5.89 UJ	1.18 U	0.888 U	2.5 U
Dioxin/Furan TEQ[a][2]	40.2 JT	1.3 UT	1.47 UT	2.09 UT	2.42 UT	0.877 UJT	3.7 JT	2.07 UT	5.51 UT	1.84 UT	1.95 UT	2.78 UJT	0.956 JT	0.861 JT	0.982 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-216	RP-11-30	RP-11-30
Sample_Date:	11/8/2005	12/12/2017	3/20/2018	3/20/2018	3/21/2006	5/9/2007	6/12/2018	8/14/2006	8/14/2006	9/13/2017	9/13/2017	9/5/2007	9/5/2007	3/22/2006	5/23/2019
Collection Depth (ft bgs):	96-100	211-216	211-216	211-216	211-216	211-216	211-216	211-216	211-216	211-216	211-216	211-216	211-216	15-30	15-30
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	FD	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.48 J	1.02 U	0.631 U	1.15 U	5.5 U	3.06 U	1.13 U	5.32 U	5.38 U	3.09 U	1.25 U	3.17 U	3.23 U	38	4.91 U
1,2,3,4,6,7,8-HpCDF	0.614 J	1.01 U	0.281 U	0.769 U	4 U	3.05 U	1.24 U	7.43 U	7.52 U	0.661 U	1.2 U	3.16 U	3.22 U	13 J	2.19 U
1,2,3,4,7,8,9-HpCDF	1.01 U	1 U	0.41 U	0.766 U	5.6 U	3.27 U	1.25 U	7 U	7.08 U	0.968 U	1.19 U	3.38 U	3.45 U	4 U	3.35 U
1,2,3,4,7,8-HxCDD	0.857 U	1.05 U	0.553 U	1.06 U	6.6 U	2.58 U	1.1 U	4.22 U	4.26 U	1.3 U	1.17 U	2.68 U	2.73 U	4.7 U	2.37 U
1,2,3,4,7,8-HxCDF	1.41 U	1.01 U	0.287 U	1.12 U	4.1 U	1.08 U	1.15 U	3.92 U	3.97 U	1.24 U	1.27 U	1.11 U	1.13 U	11 J	1.62 U
1,2,3,6,7,8-HxCDD	1.7 U	1.07 U	0.538 U	1.01 U	6.3 U	1.55 U	1.11 U	4.83 U	4.89 U	1.23 U	1.23 U	1.61 U	1.64 U	4.8 U	1.99 U
1,2,3,6,7,8-HxCDF	1.31 U	1.02 U	0.276 U	1.08 U	3.4 U	1.4 U	1.22 U	4.56 U	4.61 U	1.24 U	1.31 U	1.45 U	1.47 U	3.4 U	1.5 U
1,2,3,7,8,9-HxCDD	0.501 U	1.04 U	0.561 U	1.12 U	6 U	1.69 U	1.16 U	6.34 U	6.42 U	1.29 U	1.13 U	1.75 U	1.78 U	4.4 U	2.15 U
1,2,3,7,8,9-HxCDF	1.05 U	0.952 UJ	0.744 UJ	1.11 U	3.7 U	2.65 U	1.21 U	4.85 U	4.91 U	1.67 U	1.3 U	2.75 U	2.8 U	3.4 U	2.5 U
1,2,3,7,8-PeCDD	0.761 U	1.1 U	0.476 U	1.35 U	5.2 U	2.06 U	1.19 U	5.57 U	5.63 U	1.82 U	1.3 U	2.14 U	2.17 U	3.8 U	1.76 U
1,2,3,7,8-PeCDF	1.38 U	1.05 U	0.391 U	1.17 U	1.9 U	2.69 U	1.28 U	3.13 U	3.16 U	0.999 U	1.29 U	2.79 U	2.84 U	4.7 U	1.41 U
2,3,4,6,7,8-HxCDF	1.27 U	0.942 U	0.293 U	1.05 U	3.4 U	2.1 U	1.12 U	5.04 U	5.1 U	1.18 U	1.22 U	2.18 U	2.22 U	3 U	1.61 U
2,3,4,7,8-PeCDF	0.515 J	1.04 U	0.308 U	1.15 U	1.8 U	2.26 U	1.13 U	3.8 U	3.85 U	0.917 U	1.26 U	2.34 U	2.38 U	3.2 U	1.26 U
2,3,7,8-TCDD	0.457 U	0.944 U	0.874 U	1.68 U	2 U	0.94 U	1.13 U	2.91 U	2.95 U	2.18 U	1.28 U	4.85 J	0.991 U	1.7 U	1.81 U
2,3,7,8-TCDF	0.428 U	0.991 U	0.723 U	1.13 U	3.7 U	0.911 U	1.15 U	3.7 U	3.74 U	2.44 U	1.22 U	0.945 U	0.961 U	4.7 NJ	2.31 U
OCDD	27 J	94.3 U	0.872 UJ	1.02 U	7.8 U	17.6 U	1.31	8.75 U	10 U	2.6 U	1.26 U	18.2 U	18.5 U	170	34.4 J
OCDF	0.551 U	0.832 U	1.09 U	1.06 U	10 UJ	2.2 U	1.28 U	50.4 U	50.9 U	4.79 U	0.818 U	2.28 U	2.32 U	18 J	8.34 U
Dioxin/Furan TEQ[a][2]	0.965 JT	1.1 UJT	0.874 UJT	1.68 UT	5.2 UJT	2.06 UT	1.19 T	5.57 UT	5.63 UT	2.18 UT	1.3 UT	6.99 JT	2.17 UT	5.94 JT	1.82 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	RP-11-30	RP-11-30	RP-11-30	RP-11-30	SIL-01	SIL-01	SIL-01	SIL-01	SIL-02	SIL-02	SIL-02	WS-10-27	WS-10-27	WS-11-125	WS-11-161
Sample_Date:	5/9/2007	8/3/2006	9/15/2017	9/5/2007	11/1/2005	11/7/2005	11/8/2005	11/8/2005	11/14/2005	11/16/2005	11/17/2005	4/16/2019	9/20/2019	3/20/2006	3/20/2006
Collection Depth (ft bgs):	15-30	15-30	15-30	15-30	26.5-31.5	207-208	96-100	212-217	214-216	28-32	96-100	11-26	11-26	109-124	145-160
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	3.12 U	5.31 U	1.59 U	3.11 U	421	1.22 U	14.1 J	36.8 J	17.8 J	277	23.5 J	773	3810000 J	37 J	4.7 U
1,2,3,4,6,7,8-HpCDF	24.2 U	7.42 U	0.619 U	3.1 U	21 J	1.5 U	1.1 U	2.36 U	1.88 J	158	2.54 U	54.1 J	202000 J	3.1 U	2.7 U
1,2,3,4,7,8,9-HpCDF	3.33 U	6.99 U	1.07 U	3.32 U	2.87 J	1.02 U	1.02 U	1 U	0.763 J	56.2	0.705 J	62.9 U	13900 UJ	3.1 U	3.6 U
1,2,3,4,7,8-HxCDD	2.63 U	4.21 U	1.31 U	2.62 U	1.18 J	0.865 U	0.865 U	0.549 J	0.633 U	3.31 J	0.63 U	36.1 U	10900 UJ	3.6 U	4.5 U
1,2,3,4,7,8-HxCDF	6.69 J	3.91 U	1.18 U	1.09 U	8.1 J	1.42 U	0.653 J	0.914 U	1.69 J	278	1.83 J	25.1 U	6450 UJ	3.2 U	3.1 U
1,2,3,6,7,8-HxCDD	1.58 U	4.82 U	1.33 U	1.57 U	6.72 J	1.71 U	0.702 J	1.77 J	0.937 U	10.8 J	1.1 J	37 U	47600 J	3.6 U	4.3 U
1,2,3,6,7,8-HxCDF	1.42 U	4.55 U	1.26 U	1.42 U	2.63 U	1.33 U	1.33 U	1.3 U	0.738 U	66.7	0.657 U	24.9 U	6020 UJ	2.7 U	2.6 U
1,2,3,7,8,9-HxCDD	1.72 U	6.33 U	1.35 U	1.72 U	4.46 J	1.98 U	1.31 U	1.6 U	1.35 U	7.9 J	1.14 U	37.3 U	19200 UJ	3.4 U	4.1 U
1,2,3,7,8,9-HxCDF	2.7 U	4.84 U	1.69 U	2.69 U	1.05 U	1.06 U	1.06 U	1.04 U	1.05 U	4.77 J	1.05 U	56.1 UJ	12400 UJ	2.6 U	2.9 U
1,2,3,7,8-PeCDD	2.1 U	5.56 U	2.08 U	2.09 U	0.881 U	0.769 U	0.769 U	0.566 U	0.761 U	1.85 U	0.528 J	23.2 U	12600 UJ	7 U	7.4 U
1,2,3,7,8-PeCDF	3.33 J	3.12 U	1.16 U	2.73 U	4.19 J	1.39 U	1.39 U	0.829 U	1.24 U	195	1.1 U	20.2 U	8160 UJ	3.6 U	4 U
2,3,4,6,7,8-HxCDF	2.14 U	5.03 U	1.28 U	2.13 U	0.932 J	1.28 U	1.28 U	1.25 U	1.27 U	13.8 J	0.611 U	23.3 U	6580 UJ	2.4 U	2.4 U
2,3,4,7,8-PeCDF	2.58 J	3.79 U	1.03 U	2.29 U	2.46 U	1.32 U	0.575 J	0.56 U	0.985 U	81.7	1.06 J	21.7 U	9800 UJ	2.1 U	1 U
2,3,7,8-TCDD	0.957 U	2.91 U	2.19 U	0.954 U	0.86 U	0.461 U	0.615 U	4.65 J	0.949 U	1.27 U	0.546 U	50.5 UJ	15500 UJ	3 U	1.6 U
2,3,7,8-TCDF	2.53 J	3.69 U	4.92 U	0.925 U	4.23 J	0.432 U	0.432 U	0.72 J	0.622	173	0.428 U	36.3 U	14600 UJ	2.4 U	2.8 U
OCDD	17.9 U	31.8 U	6.76 UJK	17.8 U	2480	6.04 U	143	257	143	2280	173	4800	28900000 J	260	7.6 U
OCDF	76.3 U	50.3 U	5.32 U	2.24 U	89.5 J	2.53 U	2.11 U	2.92 U	3.97 U	337	3.95 U	239 J	1640000 J	9.1 U	7.5 U
Dioxin/Furan TEQ[a][2]	3.9 JT	5.56 UT	2.19 UJT	2.09 UT	8.79 JT	0.769 UT	1.26 JT	5.97 JT	1.43 JT	93.7 JT	1.98 JT	60.3 JT	69500 JT	7.45 JT	7.4 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	WS-12-125	WS-12-125	WS-12-125	WS-12-125	WS-12-125	WS-12-125	WS-12-161	WS-12-161	WS-12-161	WS-12-161	WS-12-161	WS-12-161	WS-13-105	WS-13-105	WS-13-105
Sample_Date:	10/17/2016	3/20/2006	4/7/2017	8/15/2006	9/10/2007	9/20/2017	11/1/2016	3/21/2006	4/17/2017	8/15/2006	9/10/2007	9/21/2017	11/2/2016	4/11/2019	9/27/2017
Collection Depth (ft bgs):	109-124	109-124	109-124	109-124	109-124	109-124	145-160	145-160	145-160	145-160	145-160	145-160	89-104	89-104	89-104
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	0.992 U	5.4 U	0.978 U	5.52 U	2.91 UJ	1.6 U	1.6 U	5.1 U	0.845 U	5.25 U	2.96 UJ	1.21 U	1.76 U	3.55 J	1.78 U
1,2,3,4,6,7,8-HpCDF	0.663 U	2.9 U	0.431 U	7.71 U	2.9 UJ	0.446 U	0.789 U	3 U	0.358 U	7.33 U	2.95 UJ	0.585 U	0.667 U	1.38 U	0.637 U
1,2,3,4,7,8,9-HpCDF	0.942 U	4.2 U	0.628 U	7.26 U	3.1 UJ	0.746 U	1.11 U	4.2 U	0.508 U	6.9 U	3.16 UJ	0.984 U	0.884 U	2.27 U	0.972 U
1,2,3,4,7,8-HxCDD	0.673 U	4.5 U	0.736 U	4.37 U	2.45 UJ	1.53 U	0.92 U	5 U	1.1 U	4.16 U	2.5 UJ	1.62 U	0.815 U	2.14 U	1.08 U
1,2,3,4,7,8-HxCDF	0.471 U	2.9 U	0.512 U	4.07 U	1.02 UJ	0.996 U	0.616 U	3.3 U	0.4 U	3.86 U	1.04 UJ	0.633 U	0.656 U	0.836 U	0.665 U
1,2,3,6,7,8-HxCDD	0.64 U	4.4 U	0.679 U	5.01 U	1.47 UJ	1.49 U	0.899 U	4.7 U	1.08 U	4.76 U	1.5 UJ	1.53 U	0.801 U	2.06 U	0.963 U
1,2,3,6,7,8-HxCDF	0.45 U	2.4 U	0.468 U	4.73 U	1.33 UJ	0.967 U	0.606 U	2.9 U	0.392 U	4.5 U	1.35 UJ	0.664 U	0.639 U	0.869 U	0.658 U
1,2,3,7,8,9-HxCDD	0.669 U	4.1 U	0.722 U	6.58 U	1.61 UJ	1.55 U	0.928 U	4.5 U	1.12 U	6.25 U	1.64 UJ	1.62 U	0.824 U	2.14 U	1.04 U
1,2,3,7,8,9-HxCDF	0.827 UJ	2.6 U	0.649 U	5.03 U	2.52 UJ	1.28 U	0.907 U	3.1 U	0.557 U	4.78 U	2.57 UJ	0.866 U	0.962 U	1.31 U	1.03 U
1,2,3,7,8-PeCDD	0.65 U	6.7 U	0.699 U	5.77 U	1.96 UJ	1.09 U	0.907 U	3.6 U	0.718 U	5.49 U	1.99 UJ	0.86 U	0.799 U	1.14 U	1.1 U
1,2,3,7,8-PeCDF	0.769 UJ	4.3 U	0.831 U	3.24 U	2.56 UJ	1.24 U	0.77 U	4.4 U	0.711 U	3.08 U	2.6 UJ	0.786 U	0.637 U	0.752 U	0.719 U
2,3,4,6,7,8-HxCDF	0.481 U	2.3 U	0.508 U	5.23 U	1.99 UJ	0.986 U	0.589 U	2.7 U	0.394 U	4.97 U	2.03 UJ	0.662 U	0.656 U	0.922 U	0.7 U
2,3,4,7,8-PeCDF	0.442 UJ	2.3 U	0.701 U	3.94 U	2.15 UJ	1.09 U	0.654 U	2.2 U	0.589 U	3.75 U	2.19 UJ	0.704 U	0.532 U	0.703 U	0.637 U
2,3,7,8-TCDD	0.583 U	1.4 U	1.07 U	3.02 U	0.892 UJ	2.95 U	0.868 U	1.7 U	0.982 U	2.87 U	0.909 UJ	1.58 U	0.912 U	0.953 U	1.89 U
2,3,7,8-TCDF	0.573 U	2.8 U	2.01 U	3.84 U	0.865 UJ	2.48 U	0.943 U	2.8 U	1.57 U	3.65 U	0.881 UJ	1.9 U	1.12 U	1.14 U	1.69 U
OCDD	5.17 UJ	6.2 U	1.19 U	9.08 U	16.7 UJ	2.56 U	6.66 UJ	7 U	1.25 U	8.63 U	17 UJ	1.52 U	18 UJ	26 J	1.09 U
OCDF	2.06 U	6 U	1.91 U	52.2 U	2.09 UJ	4.01 U	4.39 U	7.3 U	1.73 U	49.6 U	2.13 UJ	2.15 U	3.79 U	2.41 U	3.28 U
Dioxin/Furan TEQ[a][2]	0.65 UJT	6.7 UT	1.07 UT	5.77 UT	1.96 UJT	2.95 UT	0.907 UJT	3.6 UT	0.982 UT	5.49 UT	1.99 UJT	1.58 UT	0.912 UJT	1.18 JT	1.89 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	WS-13-69	WS-13-69	WS-13-69	WS-14-125	WS-14-125	WS-14-125	WS-14-161	WS-14-161	WS-16-161	WS-16-161	WS-16-161	WS-17-52	WS-17-52	WS-17-52	WS-17-94
Sample_Date:	11/3/2016	4/10/2019	9/28/2017	8/15/2006	9/10/2007	9/10/2007	8/15/2006	9/10/2007	10/4/2016	4/17/2017	9/21/2017	11/1/2016	4/16/2019	9/22/2017	11/1/2016
Collection Depth (ft bgs):	52.6-67.6	52.6-67.6	52.6-67.6	109-124	109-124	109-124	145-160	145-160	145-160	145-160	145-160	41-51	41-51	41-51	78-93
Sample Type	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.36 U	2.21 U	1.14 U	5.48 U	50.6 J	13.3 J	5.3 U	2.92 UJ	1.41 U	0.967 U	0.878 U	1.97 J	3.4 U	2.2 U	1.66 U
1,2,3,4,6,7,8-HpCDF	0.662 U	1.94 U	0.486 U	7.65 U	3.53 J	2.92 UJ	7.4 U	2.91 UJ	0.934 U	0.472 U	0.485 U	0.677 U	1.64 U	0.619 U	0.719 U
1,2,3,4,7,8,9-HpCDF	0.939 U	2.89 U	0.725 U	7.2 U	3.17 UJ	3.13 UJ	6.98 U	3.11 UJ	1.19 U	0.656 U	0.751 U	0.951 U	2.37 U	1.03 U	0.988 U
1,2,3,4,7,8-HxCDD	1.23 U	1.79 U	0.9 U	4.34 U	2.51 UJ	2.47 UJ	4.2 U	2.46 UJ	1.17 U	0.959 U	1.22 U	1.02 U	1.82 U	1.12 U	0.805 U
1,2,3,4,7,8-HxCDF	0.701 U	0.943 U	0.63 U	4.03 U	1.04 UJ	1.03 UJ	3.91 U	1.02 UJ	0.731 U	0.534 U	0.577 U	0.474 U	1.29 U	0.73 U	0.621 U
1,2,3,6,7,8-HxCDD	1.09 U	1.69 U	0.854 U	4.97 U	1.51 UJ	1.49 UJ	4.81 U	1.48 UJ	1.21 U	0.934 U	1.14 U	0.939 U	1.8 U	1.09 U	0.77 U
1,2,3,6,7,8-HxCDF	0.673 U	0.883 U	0.6 U	4.69 U	1.36 UJ	1.34 UJ	4.54 U	1.33 UJ	0.778 U	0.519 U	0.571 U	0.445 U	1.36 U	0.707 U	0.647 U
1,2,3,7,8,9-HxCDD	1.17 U	1.78 U	0.896 U	6.53 U	1.64 UJ	1.62 UJ	6.32 U	1.61 UJ	1.22 U	0.97 U	1.21 U	0.997 U	1.85 U	1.13 U	0.804 U
1,2,3,7,8,9-HxCDF	1.05 U	1.37 U	0.892 U	4.99 U	2.58 UJ	2.54 UJ	4.83 U	2.53 UJ	1.15 U	0.701 U	0.809 U	0.671 U	1.86 U	0.969 U	0.911 U
1,2,3,7,8-PeCDD	0.957 U	1.17 U	0.807 U	5.73 U	2 UJ	1.97 UJ	5.54 U	1.96 UJ	0.812 U	0.735 U	0.797 U	0.706 U	1.68 U	1.09 U	0.702 U
1,2,3,7,8-PeCDF	0.732 U	0.8 U	0.723 U	3.22 U	2.61 UJ	2.58 UJ	3.11 U	2.57 UJ	0.723 U	0.69 U	0.924 U	0.626 U	1.56 U	1.33 U	0.466 U
2,3,4,6,7,8-HxCDF	0.675 U	1 U	0.659 U	5.19 U	2.04 UJ	2.01 UJ	5.02 U	2 UJ	0.782 U	0.508 U	0.577 U	0.47 U	1.42 U	0.726 U	0.625 U
2,3,4,7,8-PeCDF	0.625 U	0.706 U	0.624 U	3.91 U	2.19 UJ	2.16 UJ	3.79 U	2.15 UJ	0.632 U	0.584 U	0.847 U	0.559 U	1.41 U	1.14 U	0.421 U
2,3,7,8-TCDD	1.15 U	1.17 U	1.39 U	3 U	0.912 UJ	0.899 UJ	2.9 U	0.896 UJ	0.9 U	1.15 U	1.42 U	0.783 U	1.97 U	3 U	0.952 U
2,3,7,8-TCDF	1.24 U	1.69 U	1.48 U	3.81 U	0.885 UJ	0.872 UJ	3.69 U	0.869 UJ	0.735 U	1.36 U	1.62 U	0.92 U	2.29 U	3.49 U	0.874 U
OCDD	5.11 U	2.5 U	1.75 U	29.5 U	373 J	83.9 J	8.72 U	16.8 UJ	6.5 U	1.39 U	1.46 UJK	13.1 UJ	7.98 UJK	6.59 UJK	10.2 UJ
OCDF	7.44 U	3.18 U	1.84 U	51.8 U	20 J	2.11 UJ	50.2 U	2.1 UJ	2.6 U	1.57 U	1.79 U	4.19 U	4.77 U	3.33 U	3.76 U
Dioxin/Furan TEQ[a][2]	1.15 UT	1.17 UT	1.39 UT	5.73 UT	2.66 JT	2.13 JT	5.54 UT	1.96 UJT	0.9 UT	1.15 UT	1.42 UJT	0.803 JT	1.97 UJT	3 UJT	0.952 UJT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														
Location:	WS-17-94	WS-17-94	WS-21-112	WS-21-112	WS-21-112	WS-21-131	WS-21-131	WS-23-116	WS-23-116	WS-24-111	WS-24-111	WS-24-111	WS-33-81	WS-33-81	WS-41-36
Sample_Date:	4/12/2019	9/22/2017	4/15/2019	9/16/2019	9/16/2019	4/9/2019	9/16/2019	4/17/2019	9/25/2019	4/8/2019	4/8/2019	9/16/2019	4/29/2019	9/24/2019	4/9/2019
Collection Depth (ft bgs):	78-93	78-93	94.5-109.5	94.5-109.5	94.5-109.5	115-130	115-130	100-115	100-115	100-110	100-110	100-110	70-80	70-80	26.3-36.3
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	8.13 U	1.96 U	8.22 U	2.32 U	2.62 UJ	1.72 U	2.05 U	4620 J	18400 J	2.24 U	1.72 U	2.87 UJ	578	17200 J	7.69 UJK
1,2,3,4,6,7,8-HpCDF	4.52 U	0.6 U	3.83 U	1.09 U	2.62 UJ	1.07 U	0.922 U	304 J	903 UJ	2.16 U	0.787 U	0.879 U	32.2 J	966 UJ	1.18 U
1,2,3,4,7,8,9-HpCDF	6.84 U	0.932 U	6.97 U	1.81 U	2.69 UJ	1.68 U	1.37 U	420 U	842 U	3.1 U	1.18 U	1.33 U	23.9 U	975 U	1.54 U
1,2,3,4,7,8-HxCDD	4.65 U	1.16 U	4.18 U	1.45 U	1.67 UJ	1.47 U	1.55 U	263 U	795 U	1.37 U	0.997 U	1.16 U	19 U	1340 U	1.37 U
1,2,3,4,7,8-HxCDF	3.38 U	0.801 U	2.68 U	0.791 U	2.4 UJ	0.837 U	0.677 U	123 U	419 U	0.827 U	0.591 U	0.743 U	10.3 U	417 U	0.693 U
1,2,3,6,7,8-HxCDD	4.1 U	1.11 U	3.67 U	1.35 U	1.91 UJ	1.35 U	1.46 U	225 U	737 U	1.25 U	0.945 U	1 U	17.3 U	1180 U	1.38 U
1,2,3,6,7,8-HxCDF	3.36 U	0.783 U	2.68 U	0.777 U	1.89 UJK	0.835 U	0.665 U	98.4 U	429 U	0.842 U	0.619 U	0.757 U	11 U	427 U	0.719 U
1,2,3,7,8,9-HxCDD	4.44 U	1.16 U	3.98 U	1.44 U	2.22 UJ	1.44 U	1.55 U	247 U	789 U	1.33 U	0.991 U	1.11 U	18.2 U	1300 U	1.41 U
1,2,3,7,8,9-HxCDF	5.5 U	0.978 U	4.51 U	1.3 U	2.83 UJ	1.21 U	1.09 U	116 U	600 U	1.24 U	0.871 U	1.18 U	22.9 UJ	561 U	0.761 U
1,2,3,7,8-PeCDD	3.99 U	1.34 U	3.52 U	1.14 U	2.32 UJ	1.09 U	0.847 U	146 U	578 U	1.1 U	0.897 U	0.904 U	11.6 U	592 U	0.761 U
1,2,3,7,8-PeCDF	2.82 U	1.27 U	2.31 U	0.879 U	1.99 UJ	0.711 U	0.939 U	81.5 U	456 U	0.885 U	0.605 U	0.745 U	8.55 U	435 U	0.569 U
2,3,4,6,7,8-HxCDF	3.55 U	0.749 U	2.86 U	0.819 U	2.24 UJ	0.89 U	0.727 U	139 U	433 U	0.85 U	0.627 U	0.768 U	12.1 U	484 U	0.833 U
2,3,4,7,8-PeCDF	2.51 U	1.04 U	2.15 U	0.781 U	2.18 UJ	0.666 U	0.809 U	84.1 U	371 U	0.844 U	0.599 U	0.664 U	6.31 U	356 U	0.741 U
2,3,7,8-TCDD	4.42 U	2.97 U	4.2 U	1.31 U	0.893 U	1.27 U	1.19 U	121 U	901 U	1.19 U	0.945 U	0.978 U	9.18 U	1020 U	0.885 U
2,3,7,8-TCDF	6.44 U	3.52 U	6.62 U	1.13 U	0.779 U	1.95 U	1.04 U	175 U	739 U	1.82 U	1.32 U	0.867 U	10.9 U	736 U	1.4 U
OCDD	14.5 U	1.49 U	13.1 U	8.93 UJ	11.2 UJ	2.52 U	4.32 U	36100	128000	7.59 J	11.7 J	28.2 UJ	4530	120000	50.2 J
OCDF	15.3 U	3.05 U	14.3 U	4.2 U	5.35 UJ	2.88 U	3.44 U	2190 UJK	5330 UJ	3.47 U	2.44 U	3.43 U	237 J	5810 UJ	2.72 J
Dioxin/Furan TEQ[a][2]	4.42 UT	2.97 UT	4.2 UT	1.31 UJT	2.32 UJT	1.27 UT	1.19 UT	206 JT	1120 JT	1.19 JT	0.949 JT	0.978 UJT	19.1 JT	1230 JT	0.901 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	GOU														Gould
Location:	WS-41-36	WS-43-36	WS-43-36	WS-47-183	WS-47-183	WS-47-183	WS-47-183	WS-8-33	WS-8-33	WS-8-59	WS-8-59	WS-8-59	WS-9-34	WS-9-34	AL1-15
Sample_Date:	9/26/2019	4/18/2019	9/20/2019	10/17/2016	10/17/2016	4/6/2017	9/20/2017	10/27/2016	4/18/2017	10/10/2017	10/31/2016	4/18/2017	11/1/2016	4/19/2017	3/28/1995
Collection Depth (ft bgs):	26.3-36.3	25.8-35.8	25.8-35.8	172-182	172-182	172-182	172-182	23-33	23-33	49-59	49-59	49-59	24-34	24-34	5-15
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	25.7 U	14.7 J	15.4 U	0.958 U	1.81 UJ	0.831 U	2.11 U	0.829 U	1.58 U	4.37 UJK	13.3 J	2.39 UJK	1.58 U	1.04 U	94
1,2,3,4,6,7,8-HpCDF	9.48 U	1.76 U	6.99 U	0.355 U	1.16 UJ	0.691 U	0.581 U	0.484 U	0.414 U	1.14 U	1.74 UJ	0.734 U	0.717 U	0.42 U	16 U
1,2,3,4,7,8,9-HpCDF	14.1 U	2.7 U	11.1 U	0.504 U	0.787 U	0.869 U	0.859 U	0.59 U	0.601 U	1.94 U	0.943 U	1.03 U	0.961 U	0.618 U	3.1 U
1,2,3,4,7,8-HxCDD	13.8 U	2.27 U	11.3 U	0.533 U	1 U	0.881 U	1.56 U	0.678 U	0.89 U	2.74 U	0.918 U	1.08 U	0.901 U	0.957 U	3.5 U
1,2,3,4,7,8-HxCDF	8.88 U	1.64 U	6.01 U	0.29 U	1.02 J	0.64 U	0.872 U	0.513 U	0.467 U	1.28 U	2.79 UJ	0.713 U	0.568 U	0.499 U	2.2 U
1,2,3,6,7,8-HxCDD	13 U	2.43 U	11.1 U	0.558 U	1.06 J	0.859 U	1.58 U	0.711 U	0.837 U	2.51 U	0.939 U	1.04 U	0.828 U	0.874 U	6.9 U
1,2,3,6,7,8-HxCDF	8.79 U	1.57 U	5.95 U	0.308 U	0.71 U	0.675 U	0.843 U	0.529 U	0.458 U	1.2 U	0.871 J	0.686 U	0.538 U	0.497 U	4.8 U
1,2,3,7,8,9-HxCDD	13.8 U	2.41 U	11.6 U	0.558 U	0.984 U	0.893 U	1.61 U	0.715 U	0.883 U	2.68 U	0.949 U	1.08 U	0.879 U	0.935 U	8.6 U
1,2,3,7,8,9-HxCDF	13.6 U	1.72 U	9.09 U	0.627 UJ	1.91 UJ	0.883 U	1.17 U	0.688 U	0.634 U	1.82 U	0.767 U	1 U	0.822 U	0.728 U	0.7 U
1,2,3,7,8-PeCDD	14.1 U	1.24 U	8.47 U	0.598 U	0.747 UJ	1.01 U	1.24 U	0.67 U	0.659 U	1.1 U	0.472 U	0.798 U	0.885 U	0.712 U	4.6 U
1,2,3,7,8-PeCDF	8.75 U	1.36 UJ	6.93 U	0.49 UJ	1.29 UJ	0.938 U	1.43 U	0.517 U	0.8 U	1.27 U	1.63 UJK	0.749 U	0.584 UJ	0.754 U	3.6 U
2,3,4,6,7,8-HxCDF	8.77 U	2.02 U	6.27 U	0.298 U	0.735 U	0.675 U	0.893 U	0.568 U	0.456 U	1.25 U	0.558 U	0.762 U	0.556 U	0.537 U	1.8 U
2,3,4,7,8-PeCDF	7.94 U	1.5 UJ	5.85 U	0.388 U	0.519 UJ	0.831 U	1.21 U	0.468 U	0.729 U	1.14 U	0.929 UJ	0.593 U	0.411 U	0.653 U	3 U
2,3,7,8-TCDD	20.7 U	1.66 U	9.21 U	0.643 U	0.702 U	1.07 U	3.26 U	0.733 U	1.1 U	2.58 U	0.443 U	1.03 U	0.838 U	0.862 U	2.1 U
2,3,7,8-TCDF	16 U	2.76 U	7.33 U	0.692 U	0.812 U	2 U	4.17 U	0.991 U	1.42 U	2.3 U	1.01 J	1.39 U	0.921 U	1.22 U	3.8 U
OCDD	43.6 UJ	85.7 J	70.1 UJ	2.76 U	6.75 UJ	1.38 UJK	4.75 UJK	3.43 J	3.45 UJK	29.8 J	110	15.7 J	10.5 UJ	1.17 U	520
OCDF	40.7 U	4.89 U	29.8 U	2.37 U	3.59 U	1.11 U	3.08 U	3.02 U	1.48 U	5.64 U	6.51 J	1.86 U	4.67 U	1.6 U	18 U
Dioxin/Furan TEQ[a][2]	20.7 UJT	1.83 JT	9.21 UJT	0.643 UJT	0.955 JT	1.07 UJT	3.26 UJT	0.734 JT	1.1 UJT	2.59 JT	0.828 JT	1.03 JT	0.885 UJT	0.862 UT	5.7 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Gould														
Location:	AL1-15	AL1-45	AL1-45	AL1-69	AL1-69	BST1W-88	BST1W-88	GGW-008	GGW-009	GGW-009	GGW-009	MW-05-24	MW-05-24	MW-05-24	MW-05-34
Sample_Date:	6/1/1999	3/29/1995	6/1/1999	3/28/1995	6/1/1999	3/28/1995	6/2/1999	8/31/1999	8/31/1999	9/1/1999	9/1/1999	6/11/1991	9/20/2017	9/21/2007	3/30/2000
Collection Depth (ft bgs):	5-15	35-45	35-45	64-69	64-69	-	-	51-54	25-28	65-68	88-91	12-22.3	-	12-22.3	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	50 U	7.7 U	50 U	4.1 U	50 U	9.8 U	50 U	65.4	25 U	146 J	131	41	1.15 U	20.3 J	10800 J
1,2,3,4,6,7,8-HpCDF	50 U	1.6 U	50 U	1.7 U	50 U	3.5 U	50 U	25 U	25 U	65.9 J	132	480	5.81	26.7 U	148000 J
1,2,3,4,7,8,9-HpCDF	50 U	0.93 U	50 U	1.3 U	50 U	1.7 U	50 U	25 U	25 U	25 UJ	25 UJ	11	1.18 U	21 U	6420 J
1,2,3,4,7,8-HxCDD	50 U	1.8 U	50 U	1.8 U	50 U	1.9 U	50 U	25 U	25 U	25 UJ	25 U	7.1 U	1.18 U	22.1 J	1470 J
1,2,3,4,7,8-HxCDF	50 U	0.9 U	50 U	1.5 U	50 U	1.5 U	50 U	25 U	25 U	46.9	55.4	45	1.31 U	21.1 J	24000 J
1,2,3,6,7,8-HxCDD	50 U	1.6 U	50 U	1.6 U	50 U	1.7 U	50 U	25 U	25 U	25 U	25 U	25	1.25 U	20.1 U	5770 J
1,2,3,6,7,8-HxCDF	50 U	1.1 U	50 U	1.9 U	50 U	1.9 U	50 U	25 U	25 U	25 U	13.8	41	1.36 U	21.4 U	11700 J
1,2,3,7,8,9-HxCDD	50 U	1.7 U	50 U	1.7 U	50 U	1.8 U	50 U	25 U	25 U	25 U	25 U	6.9	1.15 U	22.2 J	2600 J
1,2,3,7,8,9-HxCDF	50 U	1.5 U	50 U	2.5 U	50 U	2.4 U	50 U	25 U	25 U	25 U	25 U	17	1.35 U	19.3 U	7410 J
1,2,3,7,8-PeCDD	50 U	3.8 U	50 U	3 U	50 U	2.5 U	50 U	10 U	10 U	10 U	10 U	55	1.27 U	7.79 U	591 J
1,2,3,7,8-PeCDF	50 U	3.2 U	50 U	3.4 U	50 U	4 U	50 U	10 U	10 U	10 U	27.7	160	2.65	29.6 U	2560 UJ
2,3,4,6,7,8-HxCDF	50 U	1.2 U	50 U	2 U	50 U	1.9 U	50 U	25 U	25 U	25 U	25 U	58	1.26 U	20.8 U	16500 J
2,3,4,7,8-PeCDF	50 U	2.7 U	50 U	2.9 U	50 U	3.4 U	50 U	10 U	10 U	10 U	13.3	290	2.34 UK	28 U	2580 UJ
2,3,7,8-TCDD	10 U	2.9 U	10 U	1.8 U	10 U	1.6 U	10 U	10 U	10 U	69	63.3	6500	238	128	2000000 J
2,3,7,8-TCDF	10 U	3.6 U	10 U	2 U	10 U	2.3 U	10 U	17.4	10 U	696	1020	110	6.99 J	15.4 J	6000000 UJ
OCDD	100 U	82	100 U	28 U	100 U	69	100 U	587	79.3	1360 J	1140 J	260	3.3	66.4 U	76400 J
OCDF	100 U	4.9 U	100 U	4.3 U	100 U	5.9 U	100 U	105	50 U	179	50 U	1200	112 U	46.4 U	500000 J
Dioxin/Furan TEQ[a][2]	50 UT	3.82 T	50 UT	3 UT	50 UT	2.52 T	50 UT	12.6 T	10 T	156 JT	190 JT	6680 T	240 JT	145 JT	2610000 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Gould														
Location:	MW-05-34	MW-05-52	MW-05-52	MW-05-52	MW-05-52	MW-05-52	W-03-D(89)	W-03-D(89)	W-03-D(89)	W-03-D(89)	W-03-D(89)	W-03-I(41)	W-03-I(41)	W-03-I(41)	W-03-I(41)
Sample_Date:	9/21/2007	4/22/2002	4/22/2004	4/26/2005	7/6/2001	9/21/2007	12/11/1996	12/11/1996	3/27/2006	7/31/2006	9/18/2007	12/12/1996	3/27/2006	7/31/2006	9/18/2007
Collection Depth (ft bgs):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	91.6 J	8.67 U	4.6 J	12 U	7.4 J	10.7 U	2.5 U	2.7 U	3 U	5.59 UJ	3.06 U	1.4 U	3.1 U	5.55 UJ	3.23 U
1,2,3,4,6,7,8-HpCDF	738	6.76 U	5.1 J	12 U	8.7 UJ	13 U	1.4 U	2.6 U	1.8 U	7.81 UJ	3.05 U	0.44 U	2.3 U	7.75 UJ	3.22 U
1,2,3,4,7,8,9-HpCDF	65.4 U	6.19 U	12.7 U	12 U	7.7 U	11.4 U	0.7 U	3.4 U	2.6 U	7.36 UJ	3.26 U	0.57 U	3.3 U	7.3 UJ	3.45 U
1,2,3,4,7,8-HxCDD	53.7 J	9.71 U	6.63 U	12 U	11.4 U	9.01 U	2.8 U	3.2 U	3.1 U	4.43 UJ	2.58 U	2.3 U	3.2 U	4.39 UJ	2.73 U
1,2,3,4,7,8-HxCDF	122 J	5.71 U	2.5 J	12 U	1.6 U	6.37 J	1.7 U	1.2 U	2 U	4.12 UJ	1.07 U	1 U	2.4 U	4.09 UJ	1.14 U
1,2,3,6,7,8-HxCDD	82.6 J	8.86 U	8.27 U	12 U	8.5 U	5.41 U	2.6 U	3.1 U	3 U	5.07 UJ	1.55 U	2.2 U	3 U	5.03 UJ	1.64 U
1,2,3,6,7,8-HxCDF	92.4 J	5.24 U	8.94 U	12 U	3.7 U	4.87 U	1.8 U	1.3 U	1.7 U	4.79 UJ	1.39 U	1.1 U	2.1 U	4.75 UJ	1.47 U
1,2,3,7,8,9-HxCDD	61.2 J	8.86 U	14.4 U	12 U	1.7 U	5.9 U	2.6 U	3 U	2.8 U	6.66 UJ	1.69 U	2.1 U	2.9 U	6.61 UJ	1.79 U
1,2,3,7,8,9-HxCDF	63.1 U	10.6 U	30.7 U	12 U	7.9 U	9.24 U	2 U	1.4 U	2.1 U	5.1 UJ	2.65 U	1.2 U	2.7 U	5.06 UJ	2.8 U
1,2,3,7,8-PeCDD	121 J	8 U	7.5 U	12 U	5.3 U	7.18 U	3.4 U	3.2 U	4.8 U	5.85 UJ	2.06 U	3.4 U	5.5 U	5.8 UJ	2.18 U
1,2,3,7,8-PeCDF	308	7.05 U	2.2 J	12 U	4.3 U	9.38 U	3.2 U	2.4 U	2.5 U	3.28 UJ	2.69 U	2.1 U	2.9 U	3.26 UJ	2.84 U
2,3,4,6,7,8-HxCDF	105 J	6.95 U	1.9 J	12 U	1.1 U	7.32 U	3.3 U	3.4 U	1.6 U	5.3 UJ	2.1 U	2.7 U	1.9 U	5.26 UJ	2.22 U
2,3,4,7,8-PeCDF	355	5.9 U	2.4 U	12 U	5.6 U	7.88 U	3.3 U	2.5 U	2.5 U	3.99 UJ	2.26 U	2.2 U	2.9 U	3.96 UJ	2.39 U
2,3,7,8-TCDD	13300	70.5	96.1	52	142 U	82.2	2 U	1 U	2.7 U	3.06 UJ	0.939 U	1.2 U	2.7 U	3.03 UJ	0.992 U
2,3,7,8-TCDF	3.42 U	4.29 UJ	6.06 U	2.5 U	13.8 U	3.18 U	1.1 U	0.88 U	1.8 U	3.89 UJ	0.91 U	3.2 U	1.8 U	3.86 UJ	0.963 U
OCDD	403	15.6 J	23.4 J	25 U	25.8 U	61.3 U	22 U	17 U	7.6 U	16.4 UJ	17.6 U	5 U	6.6 U	14.4 UJ	28.9 J
OCDF	1050	18.5 U	11.1 U	25 U	23.4 UJ	28 U	3.5 U	2.4 U	5.7 U	52.9 UJ	2.2 U	1.4 U	7.1 U	52.5 UJ	2.33 U
Dioxin/Furan TEQ[a][2]	13600 JT	78.5 JT	104 JT	64 T	142 JT	90 JT	3.4 UT	3.2 UT	4.8 UT	5.85 UJT	2.06 UT	3.4 UT	5.5 UT	5.8 UJT	2.19 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Gould														
Location:	W-03-S(17)	W-03-S(17)	W-03-S(17)	W-03-S(17)	W-03-S(17)	W-03-S(17)	W-04-89	W-04-89	W-04-89	W-04-89	W-04-89	W-04-89	W-04-89	W-04-89	W-04-I(49)
Sample_Date:	12/11/1996	3/27/2006	6/5/2009	8/1/2006	9/18/2007	9/6/2017	10/9/2000	3/28/2006	4/12/2000	4/8/2002	6/26/2001	6/26/2001	8/9/2006	9/20/2007	10/9/2000
Collection Depth (ft bgs):	-	-	-	-	-	-	83-88	83-88	83-88	83-88	83-88	83-88	83-88	83-88	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.8 U	4.8 U	6.18 U	5.7 UJ	3.11 U	1.32 U	3.6 U	4.4 U	5.56 U	3.5 U	8.81 U	7.4 U	5.25 U	2.99 U	3 U
1,2,3,4,6,7,8-HpCDF	1.1 U	3 U	2.41 U	7.96 UJ	3.1 U	1.14 U	4.6	3.3 U	3.48 U	1.7 U	7.62 U	8.2 J	7.33 U	2.98 U	1.8 U
1,2,3,4,7,8,9-HpCDF	1.4 U	4.5 U	2.03 U	7.5 UJ	3.32 U	1.13 U	4.7	4.2 U	4.91 U	6.19 U	10.9 U	10.9 U	6.9 U	3.19 U	2.1 U
1,2,3,4,7,8-HxCDD	5 U	4 U	4.82 U	4.51 UJ	2.63 U	1.27 U	2.6 U	4.6 U	5.1 U	9.71 U	14.6 U	14.6 U	4.16 U	2.53 U	2.1 U
1,2,3,4,7,8-HxCDF	3 U	3.3 U	5 U	4.2 UJ	1.09 U	1.23 U	4.6	3.5 U	4.37 U	2.1 U	11.5 U	4.5 J	3.86 U	1.05 U	1.4 U
1,2,3,6,7,8-HxCDD	4.8 U	3.7 U	3.49 U	5.17 UJ	1.58 U	1.35 U	5 U	4.8 U	3.43 U	8.86 U	9.9 U	9.9 U	4.76 U	1.52 U	2.1 U
1,2,3,6,7,8-HxCDF	3.1 U	2.8 U	4.94 U	4.88 UJ	1.42 U	1.27 U	4.9	2.9 U	3.28 U	1.4 U	5.94 U	5.94 U	4.5 U	1.36 U	1.4 U
1,2,3,7,8,9-HxCDD	4.7 U	3.6 U	3.26 U	6.79 UJ	1.72 U	1.24 U	6.2	4.4 U	3.94 U	8.86 U	19.4 U	16	6.25 U	1.65 U	2.1 U
1,2,3,7,8,9-HxCDF	3.4 U	3.6 U	4.25 U	5.19 UJ	2.7 U	1.26 U	8	2.9 U	5.19 U	1.2 U	11.4 U	11.4 U	4.78 U	2.59 U	1.7 U
1,2,3,7,8-PeCDD	3.9 U	7.8 U	2.61 U	5.96 UJ	2.09 U	1.23 U	4.4	7.3 U	6.6 U	8 U	6.63 U	6.63 U	5.49 U	2.01 U	1.9 U
1,2,3,7,8-PeCDF	3.7 U	4.2 U	3.07 U	3.35 UJ	2.74 U	1.2 U	6.3	4.2 U	3.73 U	7.05 U	5.25 U	5.25 U	3.08 U	2.63 U	1.5 U
2,3,4,6,7,8-HxCDF	4.3 U	2.6 U	6.12 U	5.4 UJ	2.13 U	1.18 U	3.6 U	2.7 U	3.83 U	0.92 U	19.6 U	3.8 J	4.97 U	2.05 U	1.5 U
2,3,4,7,8-PeCDF	3.9 U	4 U	3.62 U	4.07 UJ	2.3 U	1.17 U	3.7	2.5 U	3.77 U	5.9 U	27.6 U	27.6 U	3.75 U	2.21 U	1.5 U
2,3,7,8-TCDD	1.8 U	3.6 U	0.872 U	3.12 UJ	0.955 U	1.54 U	2.6 U	1.7 U	4.3 U	5.81 U	6.63 U	6.63 U	2.87 U	0.918 U	1.9 U
2,3,7,8-TCDF	2 U	2.7 U	1.56 U	3.96 UJ	0.926 U	2.34 U	4.1	2.7 U	4.59 U	10.4	5.54 UJ	0	3.65 U	0.891 U	2.5 U
OCDD	21 U	9.9 U	6.69 U	17.3 J	17.9 U	2.25	10.9	14 U	100 R	24.2 U	23.3 U	16 U	9.87 U	17.2 U	5 U
OCDF	4 U	8.8 U	5.52 U	53.9 UJ	2.24 U	1.17 U	10.6	7.2 U	100 R	3 U	22.7 U	8 J	49.6 U	2.15 U	4.2 U
Dioxin/Furan TEQ[a][2]	3.9 UT	7.8 UT	2.61 UT	5.97 JT	2.09 UT	1.54 T	11.2 T	7.3 UT	6.6 AT	9.04 T	8.28 UJT	10.8 JT	5.49 UT	2.01 UT	1.9 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	Gould					RPAC									
Location:	W-04-I(49)	W-04-I(49)	W-04-I(49)	W-04-I(49)	W-04-I(49)	AL2-17	AL2-17	AL2-17	AL2-17	AL2-17	AL2-17	AL2-17	AL2-32	AL2-32	AL2-32
Sample_Date:	12/12/1996	3/28/2006	4/12/2000	8/9/2006	9/20/2007	10/3/2000	3/29/1995	3/31/2000	4/22/2002	7/6/2001	9/12/2006	9/16/2017	10/26/1995	10/3/2000	3/30/1995
Collection Depth (ft bgs):	-	-	-	-	-	7-17	7-17	7-17	7-17	7-17	7-17	-	27.5-32.5	27.5-32.5	27.5-32.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.2 U	3.6 U	7.22 U	5.3 U	3.09 U	216	100	142	8.67 U	9.01 U	2.79 U	1.16 U	10 U	8.9 U	4.2 U
1,2,3,4,6,7,8-HpCDF	2.3 U	4 U	5.73 U	7.4 U	3.08 U	321	150	206	6.76 U	7.95 U	2.78 U	1.01 U	5 U	5.1 U	3.8 U
1,2,3,4,7,8,9-HpCDF	2.9 U	4.4 U	8.07 U	6.97 U	3.3 U	19.7	7.6 U	8.41	6.19 U	8.16 U	2.98 U	1 U	2 U	5.1 U	2.8 U
1,2,3,4,7,8-HxCDD	3 U	5.8 U	7.19 U	4.19 U	2.61 U	14.4 U	3.1 U	4.07 U	9.71 U	12.1 U	2.35 U	1.25 U	4 U	5.9 U	2.1 U
1,2,3,4,7,8-HxCDF	1.8 U	3.9 U	5.54 U	3.9 U	1.09 U	31	10 U	26 U	5.71 U	11.1 U	0.979 U	1.4 U	4 U	3.8 U	2.6 U
1,2,3,6,7,8-HxCDD	2.9 U	5.8 U	4.84 U	4.81 U	1.57 U	25.7	12 U	7.64 U	8.86 U	9.01 U	1.41 U	1.32 U	4 U	5.9 U	2.3 U
1,2,3,6,7,8-HxCDF	1.8 U	3.1 J	4.15 U	4.54 U	1.41 U	25.1	11 U	9.95 U	5.24 U	3.92 U	1.27 U	1.45 U	5 U	3.6 U	2.2 U
1,2,3,7,8,9-HxCDD	2.8 U	5.4 U	5.55 U	6.31 U	1.71 U	13.4	6.8 U	3.14 U	8.86 U	16.3 U	1.54 U	1.22 U	4 U	5.9 U	2.7 U
1,2,3,7,8,9-HxCDF	2 U	3.2 U	6.57 U	4.83 U	2.68 U	8 U	0.59 U	5.47 U	10.6 U	8.37 U	2.42 U	1.44 U	6 U	4.9 U	2 U
1,2,3,7,8-PeCDD	3.3 U	4 U	8.64 U	5.54 U	2.08 U	16.3	11 U	2.69 U	8 U	5.62 U	1.88 U	1.89 U	6 U	4.5 U	5.1 U
1,2,3,7,8-PeCDF	2.9 U	1.9 U	5.77 U	3.11 U	2.72 U	12.4 U	19 U	8.75	7.05 U	4.56 U	2.45 U	1.58 U	5 U	3.9 U	4.3 U
2,3,4,6,7,8-HxCDF	3 U	2.9 U	4.85 U	5.02 U	2.12 U	26.7	10 U	11.6	6.95 U	6.36 U	1.91 U	1.35 U	5 U	4 U	2.4 U
2,3,4,7,8-PeCDF	3 U	2 U	5.83 U	3.78 U	2.28 U	23.3	17 U	15.6	5.9 U	5.94 U	2.06 U	1.54 U	4 U	3.8 U	3 U
2,3,7,8-TCDD	1.1 U	1.6 U	12.4 U	2.9 U	0.949 U	607	600	395	5.81 UJ	4.5 U	0.856 U	2.02 U	4 U	0.92	2.1 U
2,3,7,8-TCDF	1.1 U	2.6 U	10.5 U	3.68 U	0.92 U	46.1	49	8.41 U	4.29 UJ	8.48 U	0.83 U	3.17	4 U	0.92	1.3 U
OCDD	6.2 U	22 J	7.82 U	21.2 U	17.8 U	1510	890	901	11.1 U	5.1 U	18.9 J	1.48 UK	110	20.8	27 U
OCDF	3.9 U	6.5 U	9.77 U	50.1 U	2.23 U	604	280	366	18.5 U	33.5 U	2.01 U	0.959 U	15 U	11.2 U	7.1 U
Dioxin/Furan TEQ[a][2]	3.3 UT	4.32 JT	12.4 UT	5.54 UT	2.08 UT	655 T	619 T	408 T	8 UJT	5.62 UT	1.89 JT	2.34 T	6.03 T	5.52 T	5.1 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	AL2-32	AL2-32	AL2-32	AL2-32	AL2-32	AL2-32	AL2-46	AL2-46	AL2-46	AL2-46	AL2-46	AL2-46	AL2-46	AL2-46	AL4-47
Sample_Date:	3/31/2000	4/19/2002	4/20/2004	4/21/2005	7/5/2001	8/31/2006	10/3/2000	3/29/1995	3/30/2000	4/21/2004	4/22/2002	4/25/2005	7/5/2001	8/30/2006	3/24/1995
Collection Depth (ft bgs):	27.5-32.5	27.5-32.5	27.5-32.5	27.5-32.5	27.5-32.5	27.5-32.5	40-46	40-46	40-46	40-46	40-46	40-46	40-46	40-46	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.89 U	8.75 U	7.81 U	12 U	7.6 J	27 J	7.5 U	9.4 U	1.9 U	7.96 UJ	8.67 U	12 U	9.01 U	5.25 U	2.5 U
1,2,3,4,6,7,8-HpCDF	2.99 U	6.83 U	17.7 U	12 U	4.7 U	7.57 U	4 U	4.7 U	1.43 U	18.1 UJ	6.76 U	12 U	7.95 U	7.33 U	9.8 U
1,2,3,4,7,8,9-HpCDF	4.21 U	6.25 U	12.6 U	12 U	7 J	7.13 U	4 U	0.84 U	2.01 U	12.8 UJ	6.19 U	12 U	8.16 U	6.91 U	0.86 U
1,2,3,4,7,8-HxCDD	5.55 U	9.81 UJ	4.6 J	12 U	6.7 J	4.29 U	4.8 U	2.3 U	2.33 U	6.7 UJ	9.71 U	12 U	12.1 U	4.16 U	2.8 U
1,2,3,4,7,8-HxCDF	2.93 U	1.9 U	3.2 U	12 U	5.9 J	3.99 U	2.9 U	0.82 U	1.61 U	17.7 UJ	5.71 U	12 U	11.1 U	3.87 U	0.9 U
1,2,3,6,7,8-HxCDD	3.74 U	8.94 UJ	3.3 U	12 U	6 U	4.92 U	4.8 U	2.1 U	1.57 U	8.35 UJ	8.86 U	12 U	9.01 U	4.76 U	2.5 U
1,2,3,6,7,8-HxCDF	2.2 U	1.4 U	3.7 J	12 U	6.4 J	4.65 U	3.1 U	1 U	1.21 U	9.03 UJ	5.24 U	12 U	3.92 U	4.5 U	1.2 U
1,2,3,7,8,9-HxCDD	4.28 U	8.94 UJ	4.8 J	12 U	7.3 U	6.46 U	4.8 U	2.2 U	1.8 U	14.6 UJ	8.86 U	12 U	16.3 U	6.26 U	2.6 U
1,2,3,7,8,9-HxCDF	3.48 U	10.7 UJ	3.9 J	12 U	7.8 J	4.94 U	3.5 U	1.4 U	1.91 U	31 UJ	10.6 U	12 U	8.37 U	4.79 U	1.5 U
1,2,3,7,8-PeCDD	6.63 U	8.08 U	4.7 J	12 U	7.04 U	5.67 U	3.3 U	3 U	6.07	7.57 U	8 U	12 U	5.62 UJ	5.49 U	3 U
1,2,3,7,8-PeCDF	3.53 U	7.12 UJ	6.5 J	12 U	6 U	3.18 U	2.9 U	10 U	1.48 U	4.56 U	7.05 U	12 U	4.56 UJ	3.08 U	3.2 U
2,3,4,6,7,8-HxCDF	2.57 U	1.4 J	2.8 J	12 U	6.6 J	5.14 U	3.4 U	1.1 U	1.41 U	21.2 UJ	6.95 U	12 U	6.36 U	4.98 U	1.2 U
2,3,4,7,8-PeCDF	3.57 U	5.96 UJ	4.4 J	12 U	4.9 U	3.87 U	2.9 U	8.6 U	1.5 U	5.63 U	5.9 U	12 U	5.94 UJ	3.75 U	2.7 U
2,3,7,8-TCDD	3.41 U	5.87 UJ	3.4 U	2.5 U	7.04 U	2.97 U	3.4 U	15	2.11 U	3.2 U	20.6	2.5 U	4.5 J	2.87 U	58
2,3,7,8-TCDF	2.53 U	4.33 UJ	2.6 J	2.5 UJ	5.88 U	3.77 U	2.3 U	4.3 U	6.28 U	6.12 U	4.29 UJ	2.5 U	8.48 UJ	3.65 U	2.4 U
OCDD	3.66 U	11.3 UJ	19.7 J	25 U	20.8 U	265	11 U	76	6.59 U	18.1 UJ	11.1 U	25 U	14 U	19.8 U	26 U
OCDF	6.56 U	18.7 U	17.2 U	25 U	14.6 J	51.3 U	9.1 U	10 U	2.64 U	17.6 UJ	18.5 U	25 U	33.5 U	49.7 U	25 U
Dioxin/Furan TEQ[a][2]	6.63 UT	8.22 JT	11.9 JT	12 UJT	10.5 JT	6.02 JT	3.4 UT	18 T	8.18 T	7.57 UJT	28.6 JT	12 UT	10.1 JT	5.49 UT	61 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	AL5-19	AL5-19	AL5-19	AL5-19	AL5-19	AL5-35	AL5-35	AL5-35	AL5-35	AL5-35	AL5-62	AL5-62	AL5-62	AL5-62	AL5-62
Sample_Date:	10/5/2000	4/3/1995	4/4/2000	9/11/2017	9/5/2006	10/4/2000	4/3/1995	4/4/2000	9/1/2006	9/1/2006	10/4/2000	4/3/1995	4/4/2000	8/31/2006	9/11/2017
Collection Depth (ft bgs):	9-19	9-19	9-19	-	9-19	29-35	29-35	29-35	29-35	29-35	52-62	52-62	52-62	52-62	52-62
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	9.3	170 J	3.22 U	1.12 U	5.58 U	50.9	32	2.28 U	5.23 U	5.29 U	23.5 U	28	2.47 U	12.7 J	55.6 U
1,2,3,4,6,7,8-HpCDF	2.9 U	63 J	1.13 U	1.24 U	7.79 U	14.3 U	10 U	2.15 U	7.31 U	7.38 U	10.3 U	30	2.48 U	7.53 U	1.13 U
1,2,3,4,7,8,9-HpCDF	3.4 U	4.4 UJ	1.59 U	1.24 U	7.34 U	18.6 U	1.6 U	3.03 U	6.88 U	6.96 U	13.3 U	27	3.49 U	7.09 U	1.13 U
1,2,3,4,7,8-HxCDD	3.3 U	2.7 UJ	4 U	1.22 U	4.42 U	17.3 U	2.4 U	3.59 U	4.14 U	4.19 U	13.8 U	24 U	3.01 U	4.27 U	1.12 U
1,2,3,4,7,8-HxCDF	2.3 U	6.9 UJ	0.966 U	1.1 U	4.11 U	9.7 U	3.9 U	1.92 U	3.85 U	3.89 U	7.8 U	25	1.32 U	3.97 U	1.03 U
1,2,3,6,7,8-HxCDD	3.2 U	8.4 UJ	2.69 U	1.29 U	5.06 U	17.3 U	2.3 U	2.42 U	4.75 U	4.8 U	13.8 U	24 U	2.03 U	4.89 U	1.16 U
1,2,3,6,7,8-HxCDF	2.2 U	3.3 UJ	0.725 U	1.14 U	4.78 U	9.2 U	1.6 U	1.44 U	4.48 U	4.53 U	7.8 U	24 U	0.987 U	4.62 U	1.04 U
1,2,3,7,8,9-HxCDD	3.2 U	8.2 UJ	3.09 U	1.19 U	6.65 U	17.2 U	2.3 U	2.77 U	6.23 U	6.3 U	13.6 U	23 U	2.32 U	6.42 U	1.13 U
1,2,3,7,8,9-HxCDF	2.7 U	3.7 UJ	1.15 U	1.13 U	5.09 U	12.5 U	1.8 U	2.28 U	4.77 U	4.82 U	8.1 U	21 U	1.56 U	4.91 U	55.6 U
1,2,3,7,8-PeCDD	3 U	3.2 UJ	3.05 U	1.23 U	5.84 U	11.2 U	1.9 U	3.75 U	5.47 U	5.53 U	9.3 U	18 U	2.36 U	5.64 U	1.04 U
1,2,3,7,8-PeCDF	2.3 U	3.4 UJ	1.76 U	1.11 U	3.28 U	7.7 U	3.5 U	1.71 U	3.07 U	3.1 U	7.8 U	15 U	3.26 U	3.17 U	1.15 U
2,3,4,6,7,8-HxCDF	2.4 U	5.2 UJ	0.847 U	1.06 U	5.29 U	10.2 U	1.6 U	1.69 U	4.96 U	5.01 U	8.1 U	24 U	1.15 U	5.11 U	0.97 U
2,3,4,7,8-PeCDF	2.3 U	4.9 UJ	1.78 U	1.08 U	3.99 U	7.6 U	1.5 U	1.73 U	3.74 U	3.78 U	7.7 U	19 U	3.3 U	3.85 U	1.12 U
2,3,7,8-TCDD	7.4	180 J	2.17 U	1.14 U	3.05 U	96.4	33	1.51 U	2.86 U	3.24 J	9 U	22	1.83 U	2.95 U	1.16 U
2,3,7,8-TCDF	3.19 U	16 J	2.36 U	1.18 U	3.88 U	5	2.7 U	1.31 U	3.64 U	3.68 U	6.5 U	4 U	1.59 U	3.75 U	1.14 U
OCDD	91.6	2500 J	32.9 U	4.52 UK	29 U	272	490	5.12 U	34.1 U	37.5 U	34.2 U	260	15 U	76.8 U	111 U
OCDF	11.6	400 J	2.07 U	1.18 U	52.8 U	21.7	68	2.12 U	49.5 U	50 U	28.4 U	78	3.54 U	51 U	111 U
Dioxin/Furan TEQ[a][2]	10.5 T	188 JT	3.05 UT	1.23 UT	5.84 UT	109 T	35.4 T	3.75 UT	5.47 UT	8.77 JT	9.3 UT	43.5 T	2.36 UT	5.77 JT	5.56 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	AL6-96	BS-1(64)	BS-2(65)	BST2W-61	BST2W-61
Sample_Date:	12/19/1995	12/5/2017	3/21/2018	3/31/2006	3/31/2006	4/19/2004	4/22/2005	4/22/2005	6/5/2018	8/11/2006	9/11/2017	7/21/2006	7/21/2006	3/30/1995	8/30/2006
Collection Depth (ft bgs):	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	91.5-96.5	-	60.5-65.5	69.9-74.5	69.9-74.5
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	4 U	0.696 U	1.01 U	1.9 U	1.6 U	2400 J	12 U	12 U	0.71 U	5.43 U	0.78 U	5.23 U	5.37 U	3 U	5.33 U
1,2,3,4,6,7,8-HpCDF	1.1 U	0.58 U	1.14 U	2.4 U	2.1 U	1700 J	12 U	12 U	0.734 U	7.58 U	1.05 U	7.3 U	7.5 U	3 U	7.45 U
1,2,3,4,7,8,9-HpCDF	1 U	0.575 U	1.12 U	2.9 U	2.2 U	2200 J	12 U	12 U	0.703 U	7.14 U	1.05 U	6.88 U	7.06 U	1 U	7.02 U
1,2,3,4,7,8-HxCDD	2.1 U	0.969 U	1.08 U	3.2 U	2.8 U	2000 J	12 U	12 U	1.12 U	4.3 U	1.16 U	4.14 U	4.25 U	2 U	4.22 U
1,2,3,4,7,8-HxCDF	1.7 U	0.854 U	0.99 U	4.2 U	3.9 U	2400 J	12 U	12 U	0.867 U	4 U	0.83 U	3.85 U	3.95 U	1 U	3.93 U
1,2,3,6,7,8-HxCDD	2.3 U	0.987 U	1.15 U	3.3 U	3 U	1800 J	12 U	12 U	1.08 U	4.92 U	1.2 U	4.74 U	4.87 U	2 U	4.84 U
1,2,3,6,7,8-HxCDF	2.1 U	0.86 U	1.04 U	3.4 U	3.1 U	2200 J	12 U	12 U	0.869 U	4.65 U	0.84 U	4.48 U	4.6 U	1 U	4.57 U
1,2,3,7,8,9-HxCDD	2.5 U	0.963 U	1.11 U	3 U	2.7 U	2500 J	12 U	12 U	1.12 U	6.47 U	1.17 U	6.23 U	6.4 U	2 U	6.35 U
1,2,3,7,8,9-HxCDF	3.1 U	0.802 U	1.03 U	2.4 U	2.2 U	2400 J	12 U	12 U	0.898 U	4.95 U	0.83 U	4.76 U	4.89 U	1 U	4.86 U
1,2,3,7,8-PeCDD	0.88 U	1.02 U	1.05 U	3.2 U	3.3 U	2100 J	12 U	12 U	1.13 U	5.68 U	0.95 U	5.47 U	5.62 U	3 U	5.58 U
1,2,3,7,8-PeCDF	2.8 U	0.971 U	1.01 U	2.2 U	2.2 U	2500 J	12 U	12 U	0.994 U	3.19 U	0.88 U	3.07 U	3.15 U	3 U	3.13 U
2,3,4,6,7,8-HxCDF	2.2 U	0.794 U	0.972 U	2.5 U	2.2 U	1500 J	12 U	12 U	0.807 U	5.14 U	0.78 U	4.95 U	5.09 U	1 U	5.05 U
2,3,4,7,8-PeCDF	2.3 U	0.965 U	0.979 U	2 U	2.3 U	2200 J	12 U	12 U	0.882 U	3.88 U	0.86 U	3.73 U	3.83 U	3 U	3.81 U
2,3,7,8-TCDD	2.1 U	0.949 U	1.02 U	2.1 U	2 U	2300 U	2.5 U	2.5 U	1.16 U	2.97 U	1.05 U	2.86 U	2.94 U	5.8	2.92 U
2,3,7,8-TCDF	1.2 U	1.06 U	1.09 U	2.3 NJ	2.4 U	3600 U	2.5 U	2.5 U	1.1 U	3.77 U	1.76 U	3.63 U	3.73 U	3 U	3.71 U
OCDD	49 U	95.2 U	1.11 U	5.4 U	5.2 U	7500 J	25 U	25 U	0.966 U	17.4 U	110 U	15.1 J	16.5 J	18 U	33.1 U
OCDF	4.6 U	1.09 U	0.779 U	3.5 U	2.8 U	4700 J	25 U	25 U	0.97 U	51.3 U	1.17 U	49.4 U	50.8 U	3 U	50.5 U
Dioxin/Furan TEQ[a][2]	2.1 UT	1.02 UT	1.05 UT	3.43 JT	3.3 UT	6680 JT	12 UT	12 UT	1.16 UT	5.68 UT	1.05 UT	5.47 JT	5.62 JT	8.8 T	5.58 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	BST2W-61	BST5W-74	BST5W-74	BST5W-74	BST5W-74	BTB-2	BTB-2	BTB-4A	BTB-4B-25	BTB-4B-25	BTB-4B-55	GGW-001	GGW-001	GGW-002	GGW-003
Sample_Date:	9/16/2017	10/27/1995	4/3/1995	9/1/2006	9/12/2017	11/10/1992	11/10/1992	8/23/2006	8/23/2006	9/11/2017	8/23/2006	8/30/1999	8/31/1999	8/26/1999	8/26/1999
Collection Depth (ft bgs):	69.9-74.5	69.9-74.5	69.9-74.5	69.9-74.5	69.9-74.5	14-14	29.5-29.5	-	15-25	15-25	15-25	82-85	95-98	73-76	66-69
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.47	1.9 U	2.7 U	5.48 U	0.975 U	170	150	5.44 U	5.45 U	53.8 U	5.45 U	288	775	8290	30.3
1,2,3,4,6,7,8-HpCDF	1.18 U	0.46 U	2.3 U	7.66 U	0.99 U	90 U	190	7.59 U	7.62 U	1.04 U	7.62 U	98.4	104	2040	10.2
1,2,3,4,7,8,9-HpCDF	1.18 U	0.61 U	0.51 U	7.21 U	0.984 U	7.6 U	6.9 U	7.15 U	7.18 U	1.03 U	7.18 U	25 U	25 U	127	25 U
1,2,3,4,7,8-HxCDD	1.18 U	2.5 U	1.6 U	4.34 U	1.1 U	6.6 U	8.4 U	4.31 U	4.32 U	1.14 U	4.32 U	25 U	25 U	83.9	25 U
1,2,3,4,7,8-HxCDF	1.18 U	0.8 U	0.96 U	4.04 U	1.05 U	25 J	18 J	4.01 U	4.02 U	1.04 U	4.02 U	19.8	17	74.9	25 U
1,2,3,6,7,8-HxCDD	1.25 U	2.4 U	1.5 U	4.97 U	1.16 U	11 U	13 U	4.93 U	4.95 U	1.18 U	4.95 U	25 U	86.6	651	25 U
1,2,3,6,7,8-HxCDF	1.22 U	1 U	1.3 U	4.7 U	1.09 U	16 J	15 J	4.66 U	4.67 U	1.05 U	4.67 U	25 U	25 U	48.6	25 U
1,2,3,7,8,9-HxCDD	1.15 U	2.5 U	1.5 U	6.53 U	1.06 U	6.9 U	7.5 U	6.48 U	6.5 U	1.15 U	6.5 U	25 U	25 U	261	25 U
1,2,3,7,8,9-HxCDF	1.21 U	1.2 U	1.5 U	5 U	1.08 U	0	0	4.96 U	4.97 U	1.04 U	4.97 U	25 U	25 U	25 U	25 U
1,2,3,7,8-PeCDD	1.3 U	3 U	0.99 U	5.73 U	1.2 U	11 U	14 U	5.69 U	5.7 U	1.05 U	5.7 U	10 U	10 U	69.6	10 U
1,2,3,7,8-PeCDF	1.23 U	3.1 U	1 U	3.22 U	1.11 U	20	28	3.19 U	3.2 U	1.07 U	3.2 U	10 U	10 U	10 U	10 U
2,3,4,6,7,8-HxCDF	1.14 U	1 U	1.3 U	5.19 U	1.01 U	3.4 U	0	5.15 U	5.17 U	0.98 U	5.17 U	25 U	25 U	95.1	25 U
2,3,4,7,8-PeCDF	1.2 U	2.7 U	0.89 U	3.91 U	1.08 U	22	26	3.88 U	3.89 U	1.05 U	3.89 U	10 U	10 U	25.3	10 U
2,3,7,8-TCDD	1.29 U	2.3 U	0.83 U	3.92 J	4.23	4.9 U	620	2.97 U	2.98 U	1.17 U	2.98 U	15.1	13.6	74.1	10 U
2,3,7,8-TCDF	1.35 U	2.9 U	2.8 U	3.81 U	1.3 J	53	56	3.78 U	3.79 U	1.04 U	3.79 U	341	305	1660	6.8
OCDD	5.59	17 U	45 U	45 U	5.47	1700 J	1300 J	8.94 U	12.2 U	108 U	8.97 U	2460 J	4000	69600	202
OCDF	1.07 U	1.9 U	5.5 U	51.9 U	1.87	190 U	420 U	51.5 U	51.6 U	108 U	51.6 U	202	160	11600	50 U
Dioxin/Furan TEQ[a][2]	1.32 T	3 UT	0.99 UT	9.65 JT	5.56 JT	29.8 JT	655 JT	5.69 UT	5.7 UT	1.17 UT	5.7 UT	65.8 JT	74.5 T	570 T	11.1 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	GGW-003	GGW-004	GGW-004	GGW-005	GGW-006	GGW-006	GGW-028	GGW-028	GGW-028	GGW-028	MW-02-26	MW-02-26	MW-02-26	MW-02-26	MW-03-27
Sample_Date:	8/30/1999	8/27/1999	8/27/1999	9/1/1999	8/27/1999	8/27/1999	10/17/1999	10/17/1999	10/17/1999	10/17/1999	3/23/2000	6/10/1991	9/16/2017	9/25/2000	9/13/2017
Collection Depth (ft bgs):	22-25	53-56	53-56	56-59	36-39	47-50	12-15	36-39	50-53	12-15	-	-	-	-	-
Sample Type	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	15.4	210	52.8	25 U	131	25 U	103	29.2 U	29.2 U	29.2 U	25.8 U	310	5.45	5.5 U	1.22 U
1,2,3,4,6,7,8-HpCDF	25 U	104	33.6	25 U	46.6	25 U	13.3 U	13.3 U	13.3 U	13.3 U	18.9 U	34	1.11 U	2.9 U	0.847 U
1,2,3,4,7,8,9-HpCDF	25 U	25 U	25 U	25 U	25 U	25 U	21.2 U	21.2 U	21.2 U	21.2 U	21.1 U	9.3	1.11 U	3.7 U	0.842 U
1,2,3,4,7,8-HxCDD	25 U	25 U	25 U	25 U	25 U	25 U	21.3 U	21.3 U	21.3 U	21.3 U	19.5 U	16	1.17 U	3.7 U	1.04 U
1,2,3,4,7,8-HxCDF	25 U	25 U	25 U	25 U	25 U	25 U	25.1 U	25.1 U	25.1 U	25.1 U	13.6 U	8.3	1.21 U	2.4 U	1.21 U
1,2,3,6,7,8-HxCDD	25 U	25 U	25 U	25 U	25 U	25 U	18 U	18 U	18 U	18 U	13.1 U	35	1.24 U	3.7 U	1.1 U
1,2,3,6,7,8-HxCDF	25 U	25 U	25 U	25 U	25 U	25 U	15.5 U	15.5 U	15.5 U	15.5 U	10.2 U	6.9	1.25 U	2.3 U	1.25 U
1,2,3,7,8,9-HxCDD	25 U	25 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	15 U	25	1.14 U	3.7 U	1.01 U
1,2,3,7,8,9-HxCDF	25 U	25 U	25 U	25 U	25 U	25 U	29.4 U	29.4 U	29.4 U	29.4 U	16.2 U	6.7	1.24 U	2.9 U	1.24 U
1,2,3,7,8-PeCDD	10 U	10 U	10 U	10 U	10 U	10 U	17.8 U	17.8 U	17.8 U	17.8 U	25.9 U	24	1.29 U	3.7 U	1.2 U
1,2,3,7,8-PeCDF	10 U	10 U	10 U	10 U	10 U	10 U	21.7 U	21.7 U	21.7 U	21.7 U	15.6 U	4.7	1.28 U	3 U	1.13 U
2,3,4,6,7,8-HxCDF	25 U	25 U	25 U	25 U	25 U	25 U	13.4 U	13.4 U	13.4 U	13.4 U	11.9 U	9.9	1.16 U	2.5 U	1.16 U
2,3,4,7,8-PeCDF	10 U	10 U	5.8	10 U	10 U	10 U	13.5 U	13.5 U	13.5 U	13.5 U	15.7 U	5.4	1.25 U	2.9 U	1.1 U
2,3,7,8-TCDD	10 U	280 J	70.5	10 U	22.1	10 U	63.4	154	2.4 U	2.4 U	91.8	230	1.19 U	3.5 U	1.15 U
2,3,7,8-TCDF	10 U	5430 J	1610	27.5	780	10 U	1780 J	304	7.4 U	7.4 U	30.3 U	4.5 U	3.07 U	9.6	1.14 U
OCDD	137	1420 J	419	54.9	1100	20.7	1020 J	34.6	38.4	12.7 U	228 U	1700	36.6	19.1	2.31
OCDF	15.6	328	108	50 U	173	50 U	42.1	17.2 U	17.2 U	17.2 U	90 U	35	1.19 U	7.8 U	1.07 U
Dioxin/Furan TEQ[a][2]	10.2 T	837 JT	244 T	12.8 T	112 T	10 T	261 JT	202 T	17.8 T	17.8 UT	118 T	271 T	1.36 T	4.67 T	1.2 T

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	MW-03-49	MW-03-49	MW-04-27	MW-04-47	MW-04-47	MW-04-47	MW-04-47	MW-05-70	MW-05-70	MW-05-70	MW-05-70	MW-05-70	MW-05-70	MW-05-70	MW-05-70
Sample_Date:	6/10/1991	6/10/1991	9/16/2017	3/27/2000	4/19/2002	7/5/2001	9/27/2000	12/7/2017	12/7/2017	3/22/2018	4/22/2002	4/22/2004	4/26/2005	6/6/2018	7/6/2001
Collection Depth (ft bgs):	-	-	-	-	-	-	-	65-70	65-70	65-70	65-70	65-70	65-70	65-70	65-70
Sample Type	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	8.4	9	1.55 U	3.31 U	4.2 J	8.5 U	7.3 U	1.34 U	1.39 U	1.08 U	8.75 U	7.81 U	12 U	1.37 U	8.5 U
1,2,3,4,6,7,8-HpCDF	6.7	4.6 U	1.43 U	2.43 U	9.7 J	7.5 U	4.2 U	1.01 U	0.773 U	1.04 U	6.83 U	0.74 U	12 U	1.43 U	7.5 U
1,2,3,4,7,8,9-HpCDF	2 U	2 U	1.42 U	3.43 U	4.7 J	7.7 U	5.4 U	1.01 U	0.768 U	1.03 U	6.25 U	12.6 U	12 U	1.4 U	7.7 U
1,2,3,4,7,8-HxCDD	1.7 U	2 U	1.24 U	3.01 U	3.6 J	11.4 U	5.6 U	1.32 U	1.33 U	1.05 U	9.81 U	1.4 J	12 U	0.96 U	11.4 U
1,2,3,4,7,8-HxCDF	1.5 U	1.8 U	1.15 U	1.72 U	5.4 J	10.5 U	3.6 U	1 U	1.21 U	1.12 U	5.77 U	1.1 J	12 U	0.962 U	1.6 U
1,2,3,6,7,8-HxCDD	2.2 U	2 U	1.31 U	2.03 U	3.4 J	8.5 U	5.6 U	1.39 U	1.41 U	0.998 U	8.94 U	8.19 U	12 U	0.971 U	8.5 U
1,2,3,6,7,8-HxCDF	1.5 U	2.1 U	1.19 U	1.29 U	4.1 J	3.7 U	3.4 U	1.04 U	1.25 U	1.07 U	5.29 U	0.66 J	12 U	1.03 U	1 J
1,2,3,7,8,9-HxCDD	1.8 U	2 U	1.2 U	2.32 U	4.6 J	15.4 U	5.5 U	1.28 U	1.3 U	1.1 U	8.94 U	14.3 U	12 U	0.986 U	15.4 U
1,2,3,7,8,9-HxCDF	2.9 U	2.8 U	1.18 U	2.04 U	4.2 U	7.9 U	4.6 U	1.03 U	1.24 U	1.1 U	10.7 U	30.4 U	12 U	1.02 U	7.9 U
1,2,3,7,8-PeCDD	2.8 U	3.7 U	1.41 U	3.11 U	5.9 J	5.3 U	10.6 U	1.17 U	1.56 U	1.15 U	8.08 U	7.43 U	12 U	1.38 U	3.1 J
1,2,3,7,8-PeCDF	3.1 U	2.3 U	1.37 U	1.68 U	5.3 J	4.3 U	4.7 U	1.17 U	1.03 U	1.04 U	7.12 U	4.48 U	12 U	1.38 U	1.2 U
2,3,4,6,7,8-HxCDF	4.7 U	4.5 U	1.11 U	1.51 U	4.4 J	6 U	3.8 U	0.966 U	1.17 U	1.04 U	7.02 U	20.8 U	12 U	0.945 U	6 U
2,3,4,7,8-PeCDF	2.9 U	2.3 U	1.33 U	1.7 U	3.9 U	5.6 U	4.7 U	1.14 U	1 U	1.02 U	5.96 U	5.52 U	12 U	1.23 U	2 U
2,3,7,8-TCDD	95	10 U	1.49 U	1.86 U	195	14.8	3.15 U	1.29 U	1.27 U	1.13 U	5.87 U	6 U	2.5 U	1.59 U	11.2
2,3,7,8-TCDF	3.3 U	7.6 U	1.99 U	3.45 U	4.37 U	8 U	0.87	1.36 U	1.36 U	1.07 U	4.33 UJ	6 U	2.5 U	1.37 U	8 U
OCDD	50 U	42 U	2.45 U	7.35 U	10.9 U	10.2 U	20.9	2.09	1.79 U	1.76	21 J	7.5 J	25 U	4.09	14.6 U
OCDF	18 U	16 U	1.13 U	3.16 U	19.4 J	4.9 U	14.5 U	1.38 U	0.957 U	1.08 U	18.7 U	17.2 U	25 U	1.5 U	5 J
Dioxin/Furan TEQ[a][2]	98 T	10.1 T	1.49 UT	3.11 UT	205 JT	20.1 T	10.7 T	1.29 T	1.56 UT	1.15 T	8.09 JT	7.75 JT	12 UT	1.59 T	15.9 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	MW-05-70	MW-05-70	MW-08-27	MW-08-27	MW-08-64	MW-08-64	MW-09-23	MW-09-23	MW-09-23	MW-09-23	MW-09-23	MW-09-23	MW-09-23	MW-09-42	MW-09-42
Sample_Date:	9/20/2017	9/21/2007	6/12/1991	9/12/2017	3/24/2000	9/26/2000	3/28/2000	4/17/2002	5/28/2009	7/2/2001	8/4/1993	9/26/2000	9/9/2017	3/28/2000	4/17/2002
Collection Depth (ft bgs):	65-70	65-70	15.8-25.1	-	-	-	10.7-20.7	10.7-20.7	10.7-20.7	10.7-20.7	10.7-20.7	10.7-20.7	-	-	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.28 U	2.92 UJ	100000	667	2.93 U	12.5	2.4 U	8.75 U	6.28 U	8.5 U	16 J	4.9 U	1.18 U	4.3 U	8.75 U
1,2,3,4,6,7,8-HpCDF	1.2 U	2.91 UJ	280000	2260	1.63 U	24.8	2.77 U	6.83 U	2.45 U	5.8 J	12 J	2.7 U	1.19 U	3.31 U	6.83 U
1,2,3,4,7,8,9-HpCDF	1.19 U	3.12 UJ	13000	124	2.29 U	2.7 U	3.9 U	6.25 U	2.06 U	7.7 U	1.3 U	3.6 U	1.19 U	4.66 U	6.25 U
1,2,3,4,7,8-HxCDD	1.24 U	2.47 UJ	5800	28.1	4.54 U	2.5 U	3.8 U	9.81 U	4.9 U	11.4 U	6.8 U	3.4 U	1.32 U	3.68 U	9.81 U
1,2,3,4,7,8-HxCDF	1.18 U	1.03 UJ	54000	304	2.09 U	6.7	2.68 U	5.77 UJ	5.09 U	3.8 U	1.3 U	2.1 U	1.43 U	1.48 U	5.77 UJ
1,2,3,6,7,8-HxCDD	1.31 U	1.48 UJ	3800	196	3.06 U	2.5 U	2.56 U	8.94 U	3.55 U	8.5 U	1.5 U	3.4 U	1.39 U	2.48 U	8.94 U
1,2,3,6,7,8-HxCDF	1.23 U	1.33 UJ	32000	173	1.57 U	1.5 U	2.01 U	5.29 U	5.02 U	1.7 U	0.82 U	2.1 U	1.48 U	1.11 U	5.29 UJ
1,2,3,7,8,9-HxCDD	1.21 U	1.62 UJ	9600	73.2	3.5 U	2.5 U	2.93 U	8.94 U	3.31 U	1.3 U	1.5 U	3.3 U	1.28 U	2.84 U	8.94 U
1,2,3,7,8,9-HxCDF	1.22 U	2.53 UJ	15000	7.42	2.49 U	2 U	3.18 U	10.7 U	4.32 U	7.9 U	0.44 U	2.7 U	1.47 U	1.76 U	10.7 UJ
1,2,3,7,8-PeCDD	1.14 U	1.97 UJ	87000	424	4.4 U	2.3 U	2.83 U	8.08 UJ	3.03 J	5.3 U	4.4 U	3 U	1.33 U	3.16 U	8.08 UJ
1,2,3,7,8-PeCDF	1.25 U	2.57 UJ	130000	361	1.8 U	1.8 U	2.51 U	7.12 UJ	3.12 U	4.3 U	3.6 U	2.4 U	1.66 U	1.58 U	7.12 UJ
2,3,4,6,7,8-HxCDF	1.14 U	2.01 UJ	51000	151	1.84 U	11.1	2.35 U	7.02 U	6.23 U	2 J	3.6 U	2.2 U	1.38 U	1.3 U	7.02 UJ
2,3,4,7,8-PeCDF	1.22 U	2.16 UJ	200000	555	1.82 U	1.8 U	2.54 U	5.96 UJ	3.69 U	5.6 U	4.8 U	2.4 U	1.62 U	1.59 U	5.96 UJ
2,3,7,8-TCDD	4.57 J	2100 J	3000000	14700 J	2.38 U	2.5 U	2.06 U	5.87 UJ	0.887 U	4.5 U	32	3.1 U	1.8 U	1.8 U	5.87 UJ
2,3,7,8-TCDF	0.835 U	0.871 UJ	320000	929 J	23.2 U	0.6 U	1.47 U	4.33 UJ	1.59 U	1.9 U	6 U	2.1 U	1.3 U	1.61 U	4.4 U
OCDD	2.87	16.8 UJ	1000000	11100	7.97 U	43.6	13.6	15.4 J	6.81 U	4.6 U	200 U	12.1	1.48 U	4.29 U	11.3 U
OCDF	110 U	2.11 UJ	2000000	8710	5.98 U	46	4 U	18.7 U	5.61 U	3.1 U	90	6.8 U	1.33 U	4.46 U	18.7 U
Dioxin/Furan TEQ[a][2]	5.71 JT	2100 JT	3200000 T	15500 JT	4.4 UT	4.68 T	2.83 T	8.08 JT	4.14 JT	5.56 JT	36.7 JT	3.1 T	1.8 UT	3.16 UT	8.08 UJT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	MW-09-42	MW-09-42	MW-09-42	MW-09-42	MW-09-58	MW-09-58	MW-09-58	MW-09-58	MW-09-58	MW-09-58	MW-09-80	MW-09-80	MW-09-80	MW-09-80	MW-09-80
Sample_Date:	5/28/2009	7/2/2001	8/4/1993	9/26/2000	3/27/2000	4/18/2002	5/28/2009	7/2/2001	8/3/1993	9/26/2000	10/5/2000	3/27/2000	4/18/2002	5/28/2009	5/28/2009
Collection Depth (ft bgs):	-	-	-	-	-	-	-	-	-	-	70.3-80.3	70.3-80.3	70.3-80.3	70.3-80.3	70.3-80.3
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6 U	1.4 J	2.3 U	6 U	2.47 U	8.75 U	6.21 U	7 U	1.8 U	3.5 U	3.4 U	1.22 U	8.67 U	6.33 U	6.48 U
1,2,3,4,6,7,8-HpCDF	2.34 U	7.5 U	4.2 U	3.3 U	1.15 U	6.83 U	2.42 U	7.5 U	0.8 U	1.8 U	2.3 U	50 U	6.76 U	2.47 U	2.53 U
1,2,3,4,7,8,9-HpCDF	1.97 U	7.7 U	0.52 U	4.2 U	1.61 U	6.25 U	2.04 U	5.1 J	0.76 U	2.4 U	2.7 U	1.09 U	6.19 U	2.07 U	2.12 U
1,2,3,4,7,8-HxCDD	4.68 U	11.4 U	1.7 U	4 U	3.73 U	9.81 U	4.85 U	11.4 U	3.2 U	2.2 U	2.4 U	1.95 U	9.71 U	4.94 U	5.06 U
1,2,3,4,7,8-HxCDF	4.86 U	0.62 U	1.6 U	2.6 U	1.5 U	5.77 U	5.03 U	10.5 U	0.78 U	1.3 U	1.6 U	1.05 U	5.71 U	5.13 U	5.25 U
1,2,3,6,7,8-HxCDD	3.39 U	8.5 U	1.2 U	4 U	2.51 U	8.94 U	3.51 U	8.5 U	2.4 U	2.2 U	2.5 U	1.31 U	8.86 U	3.57 U	3.66 U
1,2,3,6,7,8-HxCDF	4.8 U	3.7 U	1.5 U	2.5 U	1.13 U	5.29 U	4.96 U	3.7 U	0.77 U	1.3 U	1.6 U	0.784 U	5.24 U	5.06 U	5.18 U
1,2,3,7,8,9-HxCDD	3.17 U	15.4 U	1.2 U	4 U	2.88 U	8.94 U	3.27 U	6.8 J	2.4 U	2.2 U	2.5 U	1.5 U	8.86 U	3.34 U	3.42 U
1,2,3,7,8,9-HxCDF	4.13 U	7.9 U	0.76 U	3.4 U	1.79 U	10.7 U	4.27 U	9.2 J	0.64 U	1.7 U	1.5 U	1.24 U	10.6 U	4.35 U	4.46 U
1,2,3,7,8-PeCDD	2.53 U	5.3 U	3 U	3.8 U	3.19 U	8.08 U	2.62 U	5.1 U	2.3 U	2 U	2.1 U	1.87 U	8 U	2.67 U	2.73 U
1,2,3,7,8-PeCDF	2.98 U	4.3 U	2.1 U	3.2 U	1.33 U	7.12 U	3.09 U	4.3 U	1.1 U	1.6 U	1.8 U	1.09 U	7.05 U	3.15 U	3.22 U
2,3,4,6,7,8-HxCDF	5.95 U	6 U	1.4 U	2.8 U	1.32 U	7.02 U	6.15 U	6 U	2.7 U	1.4 U	1.5 U	50 U	6.95 U	6.27 U	6.42 U
2,3,4,7,8-PeCDF	3.52 U	5.6 U	2.6 U	3.1 U	1.35 U	5.96 U	3.64 U	6.6 J	1.2 U	1.6 U	1.8 U	1.11 U	5.9 U	3.71 U	3.8 U
2,3,7,8-TCDD	0.848 U	4.5 U	13	4.4 U	2.28 U	5.87 U	0.877 U	4.5 U	6.3 J	1.8 U	2.1 U	1.55 U	5.81 U	0.893 U	0.915 U
2,3,7,8-TCDF	1.52 U	4.7 J	0.89 U	9.4	1.76 U	7.2 J	1.57 U	8 U	1 U	5.1	5.8 U	3.97 U	4.29 UJ	1.6 U	1.64 U
OCDD	6.51 U	8.6 U	23 UJ	12.9	4.27 U	9.8 J	6.73 U	37.1 J	21 UJ	5.7 U	5.5 U	9.64 U	11.1 U	6.86 U	7.02 U
OCDF	5.37 U	31.6 U	0.58 U	8.3 U	3.91 U	18.7 U	5.55 U	31.6 U	7.7 U	4.7 U	4.6 U	2.15 U	18.5 U	5.66 U	5.79 U
Dioxin/Furan TEQ[a][2]	2.53 UT	5.78 JT	16 JT	5.34 T	3.19 UT	8.8 JT	2.62 UT	8.74 JT	8.6 JT	2.51 T	2.1 UT	5 UT	8 UJT	2.67 UT	2.73 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC															
Location:	MW-09-80	MW-09-80	MW-09-80	MW-10-24	MW-10-24	MW-10-44	MW-10-57	MW-11-24	MW-11-24	MW-11-24	MW-11-24	MW-11-37	MW-11-37	MW-11-37	MW-11-56
Sample_Date:	7/2/2001	8/3/1993	9/9/2017	8/5/1993	9/9/2017	8/5/1993	8/5/1993	5/28/2009	8/4/1993	8/9/2006	9/7/2017	5/27/2009	8/4/1993	8/9/2006	5/27/2009
Collection Depth (ft bgs):	70.3-80.3	70.3-80.3	70.3-80.3	12.5-22.5	-	-	-	12-22	12-22	12-22	12-22	-	-	-	-
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	8.5 U	7.6 U	1.08 U	46	1.36 U	8.4 U	7.6 U	6.69 U	6.2 U	5.36 U	1.18 U	6.85 U	8.2 U	5.38 U	6.8 U
1,2,3,4,6,7,8-HpCDF	7.5 U	6.6 J	1.1 U	25	1.56 U	2.3 U	1.9 U	2.61 U	2.4 U	7.49 U	1.14 U	2.67 U	1.7 U	7.51 U	2.65 U
1,2,3,4,7,8,9-HpCDF	7.7 U	0.72 U	1.1 U	1.5 U	1.55 U	1.6 U	1.3 U	2.19 U	0.75 U	7.06 U	1.14 U	2.25 U	1.2 U	7.08 U	2.23 U
1,2,3,4,7,8-HxCDD	11.4 U	2.8 U	1.23 U	1.7 U	1.47 U	3.9 U	2.4 U	5.22 U	3.4 U	4.25 U	1.13 U	5.35 U	3.8 U	4.26 U	5.3 U
1,2,3,4,7,8-HxCDF	10.5 U	0.95 U	1.14 U	11 J	1.53 U	1.7 U	1.2 U	5.42 U	1.8 U	3.95 U	1.09 U	5.55 U	1.1 U	3.96 U	5.51 U
1,2,3,6,7,8-HxCDD	8.5 U	2.3 U	1.29 U	4.1 U	1.55 U	2.5 U	1.6 U	3.78 U	3.5 U	4.87 U	1.19 U	3.87 U	2.5 U	4.88 U	3.84 U
1,2,3,6,7,8-HxCDF	3.7 U	0.9 U	1.18 U	1.8 U	1.58 U	2.2 U	1.3 U	5.35 U	1.8 U	4.6 U	1.13 U	5.48 U	1.3 U	4.61 U	5.43 U
1,2,3,7,8,9-HxCDD	15.4 U	2.3 U	1.19 U	2.4 U	1.43 U	2.5 U	1.6 U	3.53 U	2.3 U	6.39 U	1.1 U	3.61 U	2.5 U	6.41 U	3.58 U
1,2,3,7,8,9-HxCDF	7.9 U	0.79 U	1.17 U	0.82 U	1.57 U	1.6 U	0.8 U	4.6 U	1.5 U	4.89 U	1.12 U	4.71 U	1.1 U	4.9 U	4.68 U
1,2,3,7,8-PeCDD	5.3 U	2.5 U	0.967 U	5.3 U	1.5 U	5.9 U	3.8 U	2.82 U	4.4 U	5.61 U	1.22 U	2.89 U	4 U	5.63 U	2.87 U
1,2,3,7,8-PeCDF	4.3 U	1.3 U	1.21 U	23 J	6.31 U	3 U	1.6 U	3.33 U	1.5 U	3.15 U	1.14 U	3.41 U	2 U	3.16 U	3.38 U
2,3,4,6,7,8-HxCDF	6 U	3.4 U	1.1 U	3.9 U	1.47 U	4.4 U	3.1 U	6.63 U	3.2 U	5.08 U	1.05 U	6.79 U	3 U	5.1 U	6.74 U
2,3,4,7,8-PeCDF	5.6 U	1.5 U	1.18 U	16 J	6.16 U	5.7 U	2 U	3.93 U	2.1 U	3.83 U	1.11 U	4.02 U	2.8 U	3.84 U	3.99 U
2,3,7,8-TCDD	4.5 U	62	1.14 U	4.3 U	1.63 U	4.3 U	3.4 U	0.945 U	5.9 U	2.93 U	1.29 U	0.967 U	3.3 U	2.94 U	0.96 U
2,3,7,8-TCDF	9.5	1.1 U	1.14 U	4.9 U	0.868 U	1.8 U	0.87 U	1.69 U	1.6 U	3.73 U	1.27 U	1.73 U	1.8 U	3.74 U	1.72 U
OCDD	11.9 U	69 UJ	1.49 U	420	1.13 U	93 U	95 U	7.25 U	51 U	13.1 U	1.27	7.43 U	99 UJ	11.1 U	7.37 U
OCDF	31.6 U	17 J	1.49 U	150	0.955 U	3.7 U	2.8 U	5.98 U	3.7 U	50.7 U	1.15 U	6.12 U	3.8 U	50.9 U	6.07 U
Dioxin/Furan TEQ[a][2]	6.25 T	64.6 JT	1.14 UT	12.8 JT	1.85 UT	5.9 UT	3.8 UT	2.82 UT	5.9 UT	5.61 UT	1.29 T	2.89 UT	4 UJT	5.63 UT	2.87 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	MW-11-56	MW-11-56	MW-11-79	MW-11-79	MW-11-79	MW-11-79	MW-11-79	OW-01(61)	OW-01(61)	OW-01(61)	OW-02(64)	OW-02(64)	OW-03(65)	OW-03(65)	OW-03(65)
Sample_Date:	8/10/2006	8/4/1993	3/15/2018	5/28/2009	8/10/2006	8/4/1993	9/7/2017	7/18/2006	9/14/2017	9/7/2006	7/18/2006	9/7/2006	7/19/2006	9/7/2006	9/7/2006
Collection Depth (ft bgs):	-	-	66-76	66-76	66-76	66-76	66-76	56.1-61.1	56.1-61.1	56.1-61.1	60-65	60-65	60-66	60-66	60-66
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.29 U	3.3 U	0.933 U	6.14 U	5.24 U	3.7 U	1.15 U	901	5.68	5.3 U	5.26 U	5.25 U	5.36 U	5.26 U	5.26 U
1,2,3,4,6,7,8-HpCDF	7.38 U	2.3 U	1 U	2.4 U	7.32 U	1.4 U	0.773 U	442	1.12 U	7.4 U	7.34 U	7.33 U	9 J	7.35 U	7.35 U
1,2,3,4,7,8,9-HpCDF	6.96 U	1.3 U	0.989 U	2.01 U	6.9 U	1 U	0.768 U	48.9	1.11 U	6.97 U	6.92 U	6.91 U	7.06 U	6.92 U	6.92 U
1,2,3,4,7,8-HxCDD	4.19 U	2.6 U	0.861 U	4.8 U	4.15 U	2.8 U	1.12 U	15.1 J	1.1 U	4.19 U	4.16 U	4.16 U	4.25 U	4.17 U	4.17 U
1,2,3,4,7,8-HxCDF	3.89 U	1.2 U	1.02 U	4.98 U	3.86 U	1 U	1.08 U	111	1.22 U	3.9 U	3.87 U	3.87 U	6.84 J	3.88 U	3.88 U
1,2,3,6,7,8-HxCDD	4.8 U	2.1 U	0.918 U	3.47 U	4.76 U	2 U	1.19 U	110	1.16 U	4.81 U	4.77 U	4.76 U	4.87 U	4.77 U	4.77 U
1,2,3,6,7,8-HxCDF	4.53 U	1.3 U	1.07 U	4.91 U	4.49 U	0.97 U	1.12 U	45.8 J	1.26 U	4.54 U	4.5 U	4.5 U	6.72 J	4.51 U	4.51 U
1,2,3,7,8,9-HxCDD	6.3 U	2.1 U	0.888 U	3.24 U	6.25 U	2 U	1.09 U	56.9	1.07 U	6.31 U	6.26 U	6.26 U	6.39 U	6.27 U	6.27 U
1,2,3,7,8,9-HxCDF	4.82 U	1 U	1.05 U	4.23 U	4.78 U	0.97 U	1.11 U	18.6 J	1.25 U	4.83 U	4.79 U	4.79 U	4.89 U	4.79 U	4.79 U
1,2,3,7,8-PeCDD	5.53 U	4.6 U	1.52 U	2.59 U	5.48 U	4.4 U	1.05 U	13.1 J	1.22 U	5.54 U	5.5 U	5.49 U	5.61 U	5.5 U	5.5 U
1,2,3,7,8-PeCDF	3.1 U	1.6 U	1.48 U	3.05 U	3.08 U	1.7 U	1.14 U	40.4 J	0.913 U	3.11 U	3.09 U	3.08 U	6.54 J	3.09 U	3.09 U
2,3,4,6,7,8-HxCDF	5.01 U	4 U	0.997 U	6.09 U	4.97 U	3.4 U	1.04 U	45.6 J	1.17 U	5.02 U	4.98 U	4.98 U	7.21 J	4.98 U	4.98 U
2,3,4,7,8-PeCDF	3.78 U	2.3 U	1.44 U	3.61 U	3.74 U	2.3 U	1.11 U	60.2	0.89 U	3.78 U	3.75 U	3.75 U	9.35 J	3.76 U	3.76 U
2,3,7,8-TCDD	2.89 U	3.5 U	1.75 U	0.868 U	2.87 U	4.4 U	1.19 U	44.1	1.23 U	2.9 U	2.88 U	2.87 U	2.93 U	2.88 U	2.88 U
2,3,7,8-TCDF	3.68 U	1.8 U	1.5 U	1.55 U	3.64 U	1.7 U	1.22 U	61.1	1.32 U	3.68 U	3.65 U	3.65 U	3.73 U	3.66 U	3.66 U
OCDD	9.75 U	38 UJ	1.67 U	6.66 U	9.46 U	22 UJ	1.29 U	11200	111 U	32.6 J	17.8 J	17.6 J	14.8 J	23.2 J	23.8 J
OCDF	50 U	4.4 U	1.43 U	5.49 U	49.6 U	3.1 U	0.779 U	736	4.19	50.1 U	49.7 U	49.7 U	50.7 U	49.8 U	49.8 U
Dioxin/Furan TEQ[a][2]	5.53 UT	4.6 UJT	1.75 UT	2.59 UT	5.48 UT	4.4 UJT	1.19 UT	140 JT	1.29 T	5.55 JT	5.51 JT	5.5 JT	10.8 JT	5.51 JT	5.51 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	OW-04(69)	OW-04(69)	OW-04(69)	OW-05(69)	OW-05(69)	OW-06(69)	OW-06(69)	OW-07(70)	OW-07(70)	OW-08(69)	OW-08(69)	OW-09(71)	OW-09(71)	OW-10(72)	OW-10(72)
Sample_Date:	7/19/2006	7/19/2006	9/6/2006	7/20/2006	9/6/2006	7/19/2006	9/6/2006	7/20/2006	9/5/2006	7/20/2006	9/6/2006	7/20/2006	9/6/2006	7/21/2006	9/5/2006
Collection Depth (ft bgs):	64.5-69.5	64.5-69.5	64.5-69.5	65-70	65-70	64.5-69.5	64.5-69.5	65.1-70.1	65.1-70.1	64-69	64-69	66.1-71.5	66.1-71.5	67.5-72.5	67.5-72.5
Sample Type	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.31 U	5.3 U	5.52 U	5.26 U	5.61 U	5.24 U	5.25 U	5.33 U	5.22 U	5.28 U	5.5 U	5.24 U	5.51 U	5.27 U	5.23 U
1,2,3,4,6,7,8-HpCDF	7.41 U	7.4 U	7.71 U	7.35 U	7.83 U	7.32 U	7.33 U	7.44 U	7.29 U	7.38 U	7.69 U	7.32 U	7.7 U	7.36 U	7.31 U
1,2,3,4,7,8,9-HpCDF	6.98 U	6.97 U	7.26 U	6.92 U	7.38 U	6.9 U	6.91 U	7.01 U	6.87 U	6.95 U	7.24 U	6.9 U	7.25 U	6.94 U	6.88 U
1,2,3,4,7,8-HxCDD	4.2 U	4.19 U	4.37 U	4.17 U	4.44 U	4.15 U	4.16 U	4.22 U	4.14 U	4.18 U	4.36 U	4.15 U	4.37 U	4.17 U	4.14 U
1,2,3,4,7,8-HxCDF	3.91 U	3.9 U	4.07 U	3.88 U	4.13 U	3.86 U	3.87 U	3.92 U	3.85 U	3.89 U	4.05 U	3.86 U	4.06 U	3.88 U	3.85 U
1,2,3,6,7,8-HxCDD	4.82 U	4.81 U	5.01 U	4.77 U	5.09 U	4.76 U	4.76 U	4.83 U	4.74 U	4.79 U	4.99 U	4.76 U	5 U	4.78 U	4.75 U
1,2,3,6,7,8-HxCDF	4.55 U	4.54 U	4.73 U	4.51 U	4.81 U	4.49 U	4.5 U	4.56 U	4.47 U	4.53 U	4.72 U	4.49 U	4.72 U	4.52 U	4.48 U
1,2,3,7,8,9-HxCDD	6.32 U	6.31 U	6.58 U	6.27 U	6.68 U	6.25 U	6.26 U	6.35 U	6.22 U	6.29 U	6.56 U	6.25 U	6.57 U	6.28 U	6.23 U
1,2,3,7,8,9-HxCDF	4.84 U	4.83 U	5.03 U	4.79 U	5.11 U	4.78 U	4.79 U	4.85 U	4.76 U	4.81 U	5.01 U	4.78 U	5.03 U	4.8 U	4.77 U
1,2,3,7,8-PeCDD	5.55 U	5.54 U	5.77 U	5.5 U	5.87 U	5.48 U	5.49 U	5.57 U	5.46 U	5.52 U	5.76 U	5.48 U	5.77 U	5.51 U	5.47 U
1,2,3,7,8-PeCDF	3.12 U	3.11 U	3.24 U	3.09 U	3.29 U	3.08 U	3.08 U	3.13 U	3.07 U	3.1 U	3.23 U	3.08 U	3.24 U	3.1 U	3.07 U
2,3,4,6,7,8-HxCDF	5.03 U	5.02 U	5.23 U	4.98 U	5.31 U	4.97 U	4.98 U	5.05 U	4.95 U	5 U	5.21 U	4.97 U	5.22 U	4.99 U	4.96 U
2,3,4,7,8-PeCDF	3.79 U	3.78 U	3.94 U	3.76 U	4.01 U	3.74 U	3.75 U	3.8 U	3.73 U	3.77 U	3.93 U	3.74 U	3.94 U	3.76 U	3.74 U
2,3,7,8-TCDD	2.9 U	2.9 U	3.02 U	2.88 U	3.07 U	2.87 U	2.87 U	2.91 U	2.86 U	2.89 U	3.01 U	2.87 U	3.02 U	2.88 U	2.86 U
2,3,7,8-TCDF	3.69 U	3.68 U	3.84 U	3.66 U	3.9 U	3.64 U	3.65 U	3.7 U	3.63 U	3.67 U	3.83 U	4.07 J	3.83 U	3.67 U	3.64 U
OCDD	24.2 J	16.4 J	11.2 J	10.9 J	12.8 J	16.2 J	14.8 J	11.1 J	16 J	9.13 J	16.5 J	10.8 J	14.4 J	12.3 J	14 J
OCDF	50.2 U	50.1 U	52.2 U	49.8 U	53.1 U	49.6 U	49.7 U	50.4 U	49.4 U	50 U	52.1 U	49.6 U	52.2 U	49.9 U	49.5 U
Dioxin/Furan TEQ[a][2]	5.56 JT	5.54 JT	5.77 JT	5.5 JT	5.87 JT	5.48 JT	5.49 JT	5.57 JT	5.46 JT	5.52 JT	5.76 JT	5.89 JT	5.77 JT	5.51 JT	5.47 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	OW-11(72)	OW-11(72)	OW-11(72)	OW-12(73)	OW-12(73)	PP-06	PP-08	PP-08	RP-15-25	RP-15-25	RP-15-25	RP-15-25	RP-15-53	RP-15-53	RP-15-53
Sample_Date:	7/21/2006	9/14/2017	9/5/2006	7/21/2006	9/5/2006	10/21/1992	9/15/2017	9/15/2017	11/29/2006	5/31/2007	9/20/2017	9/25/2006	11/29/2006	5/26/2009	5/31/2007
Collection Depth (ft bgs):	67.5-72.5	67.5-72.5	67.5-72.5	69-74	69-74	-	-	-	10.3-24.5	10.3-24.5	10.3-24.5	10.3-24.5	43.5-53	43.5-53	43.5-53
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.23 U	1.18 U	5.58 U	7.69 J	5.24 U	8 J	0.937 U	1.16 U	2.75 U	3.13 UJ	1.12 U	2.87 U	5.32 U	6 U	2.94 UJ
1,2,3,4,6,7,8-HpCDF	7.31 U	0.836 U	7.79 U	12.6 J	7.31 U	3.1 UJ	0.707 U	1.14 U	2.74 U	3.12 UJ	1.25 U	2.86 U	20.5 U	46.2 J	2.94 UJ
1,2,3,4,7,8,9-HpCDF	6.88 U	0.83 U	7.34 U	11.3 J	6.89 U	1000000 U	0.702 U	1.14 U	2.94 U	3.34 UJ	1.25 U	3.07 U	2.96 U	1.97 U	3.14 UJ
1,2,3,4,7,8-HxCDD	4.14 U	1.1 U	4.42 U	15.3 J	4.15 U	1.1 U	0.978 U	1.17 U	2.32 U	2.64 UJ	1.27 U	2.43 U	2.34 U	4.68 U	2.49 UJ
1,2,3,4,7,8-HxCDF	3.85 U	1.1 U	4.11 U	19.9 J	3.86 U	0.58 U	1.02 U	1.19 U	0.966 U	2.13 J	1.32 U	1.01 U	2.47 J	5.2 J	1.03 UJ
1,2,3,6,7,8-HxCDD	4.75 U	1.16 U	5.06 U	11.3 J	4.75 U	2.5 U	1.03 U	1.24 U	1.39 U	1.59 UJ	1.34 U	1.46 U	1.41 U	3.39 U	1.49 UJ
1,2,3,6,7,8-HxCDF	4.48 U	1.13 U	4.78 U	19.8 J	4.49 U	0.46 U	1.05 U	1.24 U	1.25 U	1.78 J	1.37 U	1.31 U	1.27 U	4.8 U	1.34 UJ
1,2,3,7,8,9-HxCDD	6.23 U	1.07 U	6.65 U	12.8 J	6.24 U	1.2 U	0.951 U	1.14 U	1.52 U	1.73 UJ	1.24 U	1.59 U	1.53 U	3.17 U	1.63 UJ
1,2,3,7,8,9-HxCDF	4.77 U	1.13 U	5.09 U	18.2 J	4.77 U	0	1.04 U	1.23 U	2.38 U	2.71 UJ	1.36 U	2.49 U	2.4 U	4.13 U	2.55 UJ
1,2,3,7,8-PeCDD	5.47 U	1.23 U	5.84 U	22.5 J	5.48 U	0.62 U	1.3 U	1.23 U	1.85 U	2.11 UJ	1.29 U	1.94 U	2.64 J	2.53 U	1.98 UJ
1,2,3,7,8-PeCDF	3.07 U	1.24 U	3.28 U	30.5 J	3.07 U	1.3 U	1.09 U	1.33 U	2.42 U	2.75 UJ	1.34 U	2.53 U	6.78 J	2.98 U	2.59 UJ
2,3,4,6,7,8-HxCDF	4.96 U	1.06 U	5.29 U	15.2 J	4.96 U	3.3 U	0.982 U	1.15 U	1.89 U	2.15 UJ	1.28 U	1.97 U	2.89 J	5.95 U	2.02 UJ
2,3,4,7,8-PeCDF	3.74 U	1.21 U	3.99 U	24.6 J	3.74 U	1.3 U	1.06 U	1.29 U	2.03 U	2.31 UJ	1.31 U	2.12 U	8.15 J	3.52 U	2.17 UJ
2,3,7,8-TCDD	2.86 U	1.28 U	3.05 U	7.48 J	2.86 U	7 J	1.9 J	4.54	0.844 U	0.961 UJ	2.8 J	0.882 U	421 J	718	81.5 J
2,3,7,8-TCDF	3.64 U	1.32 U	3.88 U	7.44 J	3.64 U	27	8.56 U	0.807 UJ	0.819 U	0.932 UJ	1.4 U	0.856 U	0.826 U	1.52 U	2.19 J
OCDD	11.6 J	1.24 U	22.6 J	17.3 J	20.5 J	63 UJ	0.981 U	1.31 UK	15.8 U	18 UJ	2.44	17.4 J	34.7 U	63.1 J	16.9 UJ
OCDF	49.5 U	0.696 U	52.8 U	49.9 U	49.5 U	110 U	1.34 U	1.2 U	1.98 U	2.25 UJ	1.12 U	2.07 U	71.5 U	133	8.83 J
Dioxin/Furan TEQ[a][2]	5.47 JT	1.28 UT	5.85 JT	50.6 JT	5.49 JT	10000 JT	3.2 JT	5.77 JT	1.85 UT	2.5 JT	4.09 JT	1.95 JT	427 JT	722 JT	83.7 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	RP-15-53	RP-15-65	RP-15-65	RP-15-65	RP-15-65	RP-15-65	RP-17-119	RP-17-119	RP-17-119	RP-17-119	RP-17-119	RP-17-119	RP-17-145	RP-17-145	RP-17-145
Sample_Date:	9/22/2006	11/29/2006	5/26/2009	5/31/2007	9/19/2017	9/22/2006	11/21/2006	11/21/2006	5/21/2007	9/15/2006	9/9/2017	9/9/2017	11/20/2006	5/18/2007	5/18/2007
Collection Depth (ft bgs):	43.5-53	60.3-64.5	60.3-64.5	60.3-64.5	60.3-64.5	60.3-64.5	109-119	109-119	109-119	109-119	109-119	109-119	140-144.5	140-144.5	140-144.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	FD	N-P	N-P	FD
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	10.2 J	3.03 U	6.44 U	3.05 UJ	54.6	4.46 J	2.81 U	2.85 U	2.96 U	2.73 U	1.22 U	1.18 U	2.74 UJ	3.07 U	3.07 U
1,2,3,4,6,7,8-HpCDF	78.9	4.01 U	2.51 U	3.04 UJ	650	37 J	2.8 U	2.84 U	2.95 U	2.72 U	1.11 U	0.713 U	2.73 UJ	3.06 U	3.06 U
1,2,3,4,7,8,9-HpCDF	3.76 J	2.95 U	2.11 U	3.26 UJ	28.1	3.08 U	3 U	3.05 U	3.16 U	2.91 U	1.1 U	0.708 U	2.92 UJ	3.28 U	3.28 U
1,2,3,4,7,8-HxCDD	2.44 U	2.33 U	5.02 U	2.58 UJ	4.64	2.43 U	2.37 U	2.41 U	2.5 U	2.3 U	1.33 U	1.13 U	2.31 UJ	2.59 U	2.6 U
1,2,3,4,7,8-HxCDF	6.25 J	0.971 U	5.22 U	1.07 UJ	56.7	3.88 J	0.987 U	1 U	1.77 J	0.958 U	1.46 U	1.44 U	5.55 J	1.08 U	1.08 U
1,2,3,6,7,8-HxCDD	3.76 J	1.4 U	3.63 U	1.55 UJ	23.4	1.72 J	1.42 U	1.45 U	1.5 U	1.38 U	1.4 U	1.19 U	1.39 UJ	1.56 U	1.56 U
1,2,3,6,7,8-HxCDF	4.8 J	1.26 U	5.15 U	1.39 UJ	40.9	2.8 J	1.28 U	1.3 U	1.35 U	1.24 U	1.51 U	1.49 U	6.16 J	1.4 U	1.4 U
1,2,3,7,8,9-HxCDD	1.6 U	1.53 U	3.39 U	1.69 UJ	5.83	1.59 U	1.55 U	1.58 U	1.63 U	1.51 U	1.29 U	1.1 U	1.51 UJ	1.7 U	1.7 U
1,2,3,7,8,9-HxCDF	2.51 J	2.4 U	4.43 U	2.65 UJ	1.75	2.5 U	2.43 U	2.47 U	2.56 U	2.36 U	1.5 U	1.48 U	2.37 UJ	2.66 U	2.66 U
1,2,3,7,8-PeCDD	5.15 J	1.86 U	2.72 U	2.06 UJ	36.7	3.3 J	1.89 U	1.92 U	1.99 U	1.84 U	1.53 U	1.42 U	1.84 U	2.07 U	2.07 U
1,2,3,7,8-PeCDF	19 J	2.43 U	3.2 U	2.69 UJ	79.8 UK	12.1 J	2.47 U	2.51 U	2.6 U	2.4 U	1.42 U	1.6 U	5.02 J	2.7 U	2.7 U
2,3,4,6,7,8-HxCDF	6.69 J	1.9 U	6.38 U	2.1 UJ	35.9	3.68 J	1.93 U	1.96 U	2.03 U	1.87 U	1.41 U	1.39 U	1.88 UJ	2.11 U	2.11 U
2,3,4,7,8-PeCDF	26.3 J	2.04 U	3.78 U	3.27 J	117	15.7 J	2.07 U	2.11 U	2.18 U	2.01 U	1.39 U	1.56 U	5.27 J	2.27 U	2.27 U
2,3,7,8-TCDD	1090	111 J	114	116 J	9910 J	603	0.863 U	0.876 U	0.908 U	0.837 U	1.35 U	1.72 U	0.84 U	0.943 U	0.944 U
2,3,7,8-TCDF	0.862 U	0.823 U	1.62 U	0.91 UJ	353 J	0.858 U	0.837 U	0.85 U	0.881 U	0.812 U	1.11 U	1.47 U	0.815 U	0.914 U	0.915 U
OCDD	79 J	27.2 U	10.8 J	17.5 UJ	464	32.6 J	18.2 J	16.4 U	17 U	15.7 U	1.4 U	1.65 U	15.7 UJ	17.6 U	17.7 U
OCDF	237	16.5 U	12.3 J	10.7 J	1950	115	2.02 U	2.06 U	2.13 U	1.96 U	1.16 U	0.888 U	1.97 UJ	2.21 U	2.21 U
Dioxin/Furan TEQ[a][2]	1110 JT	113 JT	117 JT	119 JT	10000 JT	613 JT	1.9 JT	1.92 UT	2.17 JT	1.84 UT	1.53 UT	1.72 UT	4.74 JT	2.07 UT	2.07 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC														
Location:	RP-17-145	RP-17-145	RP-17-25	RP-17-25	RP-17-25	RP-17-25	RP-17-25	RP-17-95	RP-17-95	RP-17-95	RPW-02(38)	RPW-03(53)	RPW-04(38)	SP-09	W-06-B(67)
Sample_Date:	9/18/2006	9/9/2017	11/20/2006	5/18/2007	9/15/2006	9/15/2006	9/9/2017	11/28/2006	5/21/2007	9/15/2006	8/5/1993	8/5/1993	6/1/1984	6/1/1984	9/14/2017
Collection Depth (ft bgs):	140-144.5	140-144.5	10.3-25.3	10.3-25.3	10.3-25.3	10.3-25.3	10.3-25.3	85-95	85-95	85-95	28-38	-	-	0.01-0.01	57.9-67.9
Sample Type	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.82 U	1.24 U	4.13 J	3.1 U	2.79 U	2.76 U	1.33 U	7.14 J	3.02 U	2.73 U	11 U	9.5 U	--	--	1.27 U
1,2,3,4,6,7,8-HpCDF	2.81 U	0.924 U	3.07 J	3.09 U	2.78 U	2.75 U	1.1 U	7.64 J	3.01 U	2.72 U	5.5 U	3.8 U	--	--	1.22 U
1,2,3,4,7,8,9-HpCDF	3.01 U	0.918 U	2.91 U	3.3 U	2.98 U	2.95 U	1.09 U	6.23 J	3.22 U	2.92 U	1.9 U	4.5 U	--	--	1.21 U
1,2,3,4,7,8-HxCDD	2.38 U	1.15 U	2.31 U	2.62 U	2.36 U	2.33 U	1.43 U	2.31 U	2.55 U	2.31 U	4.8 U	5.9 U	--	--	1.26 U
1,2,3,4,7,8-HxCDF	0.99 U	1.44 U	0.959 U	1.09 U	0.98 U	0.971 U	1.49 U	6.48 J	1.06 U	0.96 U	1.5 U	3.4 U	--	--	1.22 U
1,2,3,6,7,8-HxCDD	1.43 U	1.22 U	1.38 U	1.57 U	1.41 U	1.4 U	1.51 U	7.22 J	1.53 U	1.38 U	4.1 U	5.3 U	--	--	1.33 U
1,2,3,6,7,8-HxCDF	1.29 U	1.49 U	1.25 U	1.41 U	1.27 U	1.26 U	1.54 U	6.91 J	1.38 U	1.25 U	1.4 U	2.2 U	--	--	1.26 U
1,2,3,7,8,9-HxCDD	1.56 U	1.12 U	1.51 U	1.71 U	1.54 U	1.53 U	1.39 U	6.32 J	1.67 U	1.51 U	4.1 U	5.3 U	--	--	1.23 U
1,2,3,7,8,9-HxCDF	2.44 U	1.47 U	2.37 U	2.68 U	2.42 U	2.4 U	1.53 U	6.61 J	2.61 U	2.37 U	1.9 U	2.5 U	--	--	1.25 U
1,2,3,7,8-PeCDD	1.9 U	1.39 U	1.84 U	2.08 U	1.88 U	1.86 U	1.41 U	7.73 J	2.03 U	1.84 U	2.9 U	4.6 U	--	--	1.21 U
1,2,3,7,8-PeCDF	2.48 U	1.26 U	2.4 U	2.72 U	2.46 U	2.43 U	1.32 U	7.45 J	2.65 U	2.4 U	3 U	3.9 U	--	--	1.31 U
2,3,4,6,7,8-HxCDF	1.93 U	1.39 U	1.87 U	2.13 U	1.92 U	1.9 U	1.43 U	6.53 J	2.07 U	1.88 U	1.5 U	4.5 U	--	--	1.17 U
2,3,4,7,8-PeCDF	2.08 U	1.23 U	2.02 U	2.29 U	2.06 U	2.04 U	1.29 U	7.26 J	2.23 U	2.02 U	3.8 U	3.6 U	--	--	1.28 U
2,3,7,8-TCDD	0.865 U	1.71 U	0.838 U	0.951 U	0.857 U	0.848 U	1.36 U	0.84 U	0.926 U	0.839 U	7.7 U	3.1 U	600 U	900 U	1.17 U
2,3,7,8-TCDF	0.839 U	1.51 U	6.98 J	3.05 J	2.85 NJ	3.03 NJ	1.31 U	0.814 U	0.898 U	0.814 U	7.2 U	1.7 U	--	--	2.37 J
OCDD	16.2 U	1.61 U	39.3 J	17.8 U	24.3 J	16.8 J	1.73 U	15.7 U	17.3 U	15.7 U	89 U	27 UJ	--	--	111 U
OCDF	2.03 U	1.12 U	7.45 J	2.23 U	2.01 U	1.99 U	1.01 U	12.7 J	2.17 U	1.97 U	32 U	15 U	--	--	0.779 U
Dioxin/Furan TEQ[a][2]	1.9 UT	1.71 UT	2.62 JT	2.39 JT	2.17 JT	2.17 JT	1.41 UT	15.2 JT	2.03 UT	1.84 UT	7.7 UT	4.6 UJT	600 UT	900 UT	1.45 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC															
Location:	W-06-B(67)	W-06-D(49)	W-06-D(49)	W-06-S(27)	W-06-S(27)	W-07-D(69)	W-07-S(15)	W-08(54)	W-08-26	W-08-26	W-08-74	W-08-74	W-09-116	W-09-116	W-09-116
Sample_Date:	9/28/2000	3/30/2000	9/28/2000	3/30/2000	9/28/2000	10/21/1992	10/21/1992	8/29/2006	8/29/2006	9/16/2017	8/30/2006	9/16/2017	4/20/2004	4/20/2004	4/20/2005
Collection Depth (ft bgs):	57.9-67.9	-	-	12.25-27.25	12.25-27.25	-	-	-	20-25	20-25	68-73	68-73	110.5-115.5	110.5-115.5	110.5-115.5
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	4.7 U	2.74 U	4.5 U	2.91 U	4 U	17 J	13 J	5.38 U	9.37 J	1.26 U	5.45 U	1.17 U	7.81 U	2 U	12 U
1,2,3,4,6,7,8-HpCDF	2.4 U	2.63 U	2.6 U	2.25 U	3.3 J	3.8 UJ	8.9 UJ	7.51 U	7.83 U	1.19 U	7.62 U	0.691 U	17.7 U	1.1 U	12 U
1,2,3,4,7,8,9-HpCDF	3.2 U	3.7 U	3.4 U	3.16 U	2.7 U	0.4 U	7.3	7.08 U	7.38 U	1.18 U	7.18 U	0.687 U	12.6 U	0.6 U	12 U
1,2,3,4,7,8-HxCDD	3.1 U	4.76 U	3.3 U	3.37 U	2.7 U	0.76 U	4 J	4.26 U	4.44 U	1.28 U	4.32 U	1.11 U	6.57 U	6.57 U	12 U
1,2,3,4,7,8-HxCDF	1.4 U	3.15 U	2.2 U	2.1 U	1.7 U	0.89 U	4.9 UJ	3.96 U	4.13 U	1.16 U	4.02 U	1.24 U	17.3 U	0.83 U	12 U
1,2,3,6,7,8-HxCDD	3.1 U	3.2 U	3.3 U	2.27 U	2.7 U	2.2 U	5.5 UJ	4.88 U	5.09 U	1.36 U	4.95 U	1.18 U	8.19 U	8.19 U	12 U
1,2,3,6,7,8-HxCDF	3.1 U	2.36 U	2.1 U	1.57 U	1.6 U	0.59 U	4.7 UJ	4.61 U	4.81 U	1.2 U	4.67 U	1.28 U	8.86 U	0.53 U	12 U
1,2,3,7,8,9-HxCDD	3.1 U	3.67 U	3.3 U	2.6 U	2.6 U	1.2 U	6.6 J	6.41 U	6.68 U	1.25 U	6.5 U	1.08 U	14.3 U	1.3 J	12 U
1,2,3,7,8,9-HxCDF	2.4 U	3.74 U	2.8 U	2.49 U	2.2 U	0	0	4.9 U	5.11 U	1.19 U	4.97 U	1.27 U	30.4 U	30.4 U	12 U
1,2,3,7,8-PeCDD	2.1 U	3.21 U	3.2 U	1.76 U	2.6 U	0.86 U	1.7 J	5.63 U	5.87 U	1.31 U	5.7 U	1.2 U	7.43 U	7.43 U	12 U
1,2,3,7,8-PeCDF	1.7 U	2.13 U	2.7 U	1.44 U	2.1 U	1.1 U	1.7 UJ	3.16 U	3.29 U	1.33 U	3.2 U	1.2 U	4.48 U	1.3 U	12 U
2,3,4,6,7,8-HxCDF	2 U	2.76 U	2.3 U	1.84 U	1.8 U	4 U	12 UJ	5.1 U	5.31 U	1.12 U	5.17 U	1.19 U	20.8 U	20.8 U	12 U
2,3,4,7,8-PeCDF	1.6 U	2.15 U	2.6 U	1.46 U	2.1 U	1.1 U	2.9 UJ	3.84 U	4.01 U	1.3 U	3.89 U	1.17 U	5.52 U	5.52 U	12 U
2,3,7,8-TCDD	1.9 U	1.83 U	3.5 U	2.31 U	34.1	12	23	2.94 U	3.07 U	1.19 U	2.98 U	1.28 U	3.14 U	3.14 U	2.5 U
2,3,7,8-TCDF	0.7 U	1.81 U	0.5 U	1.72 U	0.57 J	52	61	3.74 U	3.9 U	1.17 U	3.79 U	1.3 U	6 U	6 U	2.5 U
OCDD	8 U	5.43 U	15.1	6.65	20.6	120 U	69 UJ	23.7 U	145	7.4	23.7 U	1.15 U	17.7 U	9.5 U	25 U
OCDF	6.6 U	3.39 U	5.7 U	3.83 U	9.8 U	170 U	38 UJ	50.9 U	53.1 U	1.21 U	51.6 U	1.13 U	17.2 U	2.1 U	25 U
Dioxin/Furan TEQ[a][2]	2.1 UT	3.21 UT	3.5 T	2.31 T	36.8 JT	18.2 JT	33.3 JT	5.63 UT	6.01 JT	1.31 T	5.7 UT	1.28 UT	7.43 UT	7.56 JT	12 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	RPAC											SOU			
Location:	W-09-116	W-09-116	W-09-116	W-09-116	W-09-116	W-09-133	W-09-86	W-09-86	W-09-D(38)	W-09-D(38)	W-09-D(38)	GGW-011	GGW-011	GGW-022	GGW-022
Sample_Date:	4/3/2006	6/19/2009	7/15/2008	8/10/2006	8/12/2008	6/19/2009	4/3/2006	8/11/2006	10/22/1992	4/3/2006	9/8/2017	10/20/1999	10/20/1999	10/20/1999	10/20/1999
Collection Depth (ft bgs):	110.5-115.5	110.5-115.5	110.5-115.5	110.5-115.5	110.5-115.5	122.8-132.8	80-85	80-85	28-38	28-38	-	54-57	87.5-90.5	22-25	62-65
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	5.6 U	6.05 U	3.7 U	5.4 U	3.94 U	6.39 U	5.7 U	5.47 U	15 J	6.6 U	1.87 U	29.2 U	29.2 U	29.2 UJ	29.2 U
1,2,3,4,6,7,8-HpCDF	3.2 U	2.36 U	1.61 U	7.54 U	1.72 U	2.49 U	4 U	7.64 U	11 J	6.2 U	1.34 U	13.3 U	13.3 U	13.3 UJ	13.3 U
1,2,3,4,7,8,9-HpCDF	3.8 U	1.98 U	2.94 U	7.11 U	3.13 U	2.09 U	4.8 U	7.2 U	5.9 J	4.8 U	1.33 U	21.2 U	21.2 U	21.2 UJ	21.2 U
1,2,3,4,7,8-HxCDD	3.8 U	4.72 U	1.51 U	4.28 U	1.61 U	4.99 U	4 U	4.33 U	3.1 J	5.5 U	1.4 U	21.3 U	21.3 U	21.3 UJ	21.3 U
1,2,3,4,7,8-HxCDF	2.4 U	4.9 U	2.78 U	3.98 U	2.96 U	5.18 U	3 U	4.03 U	3.6 UJ	3.2 U	1.29 U	25.1 U	25.1 U	25.1 UJ	25.1 U
1,2,3,6,7,8-HxCDD	4.3 U	3.42 U	2.18 U	4.9 U	2.32 U	3.61 U	3.8 U	4.96 U	5.1 UJ	5.6 U	1.48 U	18 U	18 U	18 UJ	18 U
1,2,3,6,7,8-HxCDF	2.1 U	4.84 U	2.08 U	4.63 U	2.22 U	5.11 U	2.6 U	4.69 U	3.6 UJ	2.6 U	1.34 U	15.5 U	15.5 U	15.5 UJ	15.5 U
1,2,3,7,8,9-HxCDD	3.8 U	3.19 U	1.48 U	6.44 U	1.58 U	3.37 U	3.7 U	6.52 U	6.5 J	5.3 U	1.36 U	20 U	20 U	20 UJ	20 U
1,2,3,7,8,9-HxCDF	2.1 U	4.16 U	3.19 U	4.92 U	3.4 U	4.4 U	2.3 U	4.99 U	0	2.6 U	1.33 U	29.4 U	29.4 U	29.4 UJ	29.4 U
1,2,3,7,8-PeCDD	6.5 U	2.55 U	0.926 U	5.65 U	0.987 U	2.7 U	6.6 U	5.72 U	2.4 J	5.7 U	1.79 U	17.8 U	17.8 U	17.8 UJ	17.8 U
1,2,3,7,8-PeCDF	3.5 U	3.01 U	2.22 U	3.17 U	2.36 U	3.18 U	4 U	3.21 U	2.8 UJ	4.1 U	2.03 U	21.7 U	21.7 U	21.7 UJ	21.7 U
2,3,4,6,7,8-HxCDF	2 U	6 U	2.66 U	5.12 U	2.83 U	6.33 U	2.2 U	5.18 U	9.3 UJ	2.5 U	1.25 U	13.4 U	13.4 U	13.4 UJ	13.4 U
2,3,4,7,8-PeCDF	1.7 U	3.55 U	2.24 U	3.86 U	2.38 U	3.75 U	1.8 U	3.91 U	4.3 UJ	4 U	1.98 U	13.5 U	13.5 U	13.5 UJ	13.5 U
2,3,7,8-TCDD	3 U	0.854 UJ	0.851 U	2.95 U	0.907 U	0.902 UJ	3.6 U	2.99 U	6.1 J	10	4.17 U	2.4 U	2.4 U	2.4 UJ	2.4 U
2,3,7,8-TCDF	2.1 U	1.53 U	0.503 U	3.76 U	0.536 U	1.61 U	2.8 U	3.8 U	28	4.2 U	1.63 U	7.4 U	7.4 U	7.4 UJ	7.4 U
OCDD	8.4 U	6.56 U	1.7 U	16.5 U	1.81 U	6.92 U	8.6 U	24.1 U	93 UJ	47 U	6.58	12.7 U	12.7 U	218 J	12.7 U
OCDF	5.7 U	5.41 U	2.69 U	51.1 U	2.87 U	5.71 U	7.6 U	51.8 U	42 UJ	10 U	1.76 UK	17.2 U	17.2 U	17.2 UJ	17.2 U
Dioxin/Furan TEQ[a][2]	6.5 UT	2.55 UJT	0.926 UT	5.65 UT	0.987 UT	2.7 UJT	6.6 UT	5.72 UT	13.9 JT	15.7 T	4.17 T	17.8 UT	17.8 UT	17.9 JT	17.8 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	GGW-023	GGW-024	GGW-024	GGW-024	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137	MW-03-137
Sample_Date:	10/20/1999	10/24/1999	10/24/1999	10/24/1999	11/17/2006	12/11/2017	3/20/2018	3/20/2018	3/20/2018	5/15/2007	6/1/2009	6/11/2018	7/14/2008	8/15/2008	9/14/2017
Collection Depth (ft bgs):	14-17	25-28	82-85	25-28	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5	131.5-136.5
Sample Type	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	29.2 U	29.2 U	29.2 U	29.2 U	2.73 U	1.05 U	0.492 U	1.04 U	0.584 U	2.94 U	6.35 U	1.08 U	3.76 U	3.58 U	3.69 U
1,2,3,4,6,7,8-HpCDF	13.3 U	13.3 U	13.3 U	13.3 U	2.72 U	1 U	0.281 U	1.11 U	0.126 U	6.42 U	2.47 U	1.02 U	1.64 U	1.56 U	0.987 U
1,2,3,4,7,8,9-HpCDF	21.2 U	21.2 U	21.2 U	21.2 U	2.92 U	0.995 U	0.414 U	1.11 U	0.374 U	3.13 U	2.08 U	1.03 U	2.99 U	2.85 U	1.63 U
1,2,3,4,7,8-HxCDD	21.3 U	21.3 U	21.3 U	21.3 U	2.31 U	0.945 U	0.454 U	1.07 U	0.338 U	2.48 U	4.95 U	0.962 U	1.54 U	1.47 U	1.66 U
1,2,3,4,7,8-HxCDF	25.1 U	25.1 U	25.1 U	25.1 U	0.96 U	1.1 U	0.316 U	1.12 U	0.285 U	5.79 J	5.14 U	0.986 U	2.82 U	2.69 U	1.16 U
1,2,3,6,7,8-HxCDD	18 U	18 U	18 U	18 U	1.38 U	0.962 U	0.439 U	1.02 U	0.332 U	1.49 U	3.58 U	0.973 U	2.21 U	2.11 U	1.51 U
1,2,3,6,7,8-HxCDF	15.5 U	15.5 UJ	15.5 U	15.5 U	1.25 U	1.11 U	0.304 U	1.07 U	0.272 U	1.34 U	5.08 U	1.05 U	2.12 U	2.02 U	1.16 U
1,2,3,7,8,9-HxCDD	20 U	20 U	20 U	20 U	1.51 U	0.938 U	0.46 U	1.13 U	0.346 U	1.62 U	3.35 U	1.02 U	1.51 U	1.44 U	1.62 U
1,2,3,7,8,9-HxCDF	29.4 U	29.4 U	29.4 U	29.4 U	2.37 U	1.04 UJ	0.741 UJ	1.11 U	0.623 UJ	6.26 J	4.37 U	1.04 U	3.24 U	3.09 U	1.6 U
1,2,3,7,8-PeCDD	17.8 U	17.8 U	17.8 U	17.8 U	1.84 U	1.11 U	0.354 U	1.16 U	0.387 U	7.95 J	2.68 U	1.14 U	0.942 U	0.897 U	1.66 U
1,2,3,7,8-PeCDF	21.7 U	21.7 U	21.7 U	21.7 U	2.4 U	0.928 U	0.418 UJ	1.21 U	0.302 UJ	9.26 J	3.16 U	1.22 U	2.25 U	2.15 U	1.22 U
2,3,4,6,7,8-HxCDF	13.4 U	13.4 UJ	13.4 U	13.4 U	1.88 U	1.03 U	0.317 U	1.04 U	0.278 U	3.93 J	6.29 U	0.964 U	2.7 U	2.57 U	1.24 U
2,3,4,7,8-PeCDF	13.5 U	13.5 U	13.5 U	13.5 U	2.02 U	0.923 U	0.213 U	1.19 U	0.188 U	7.03 J	3.73 U	1.08 U	2.27 U	2.17 U	1.07 U
2,3,7,8-TCDD	2.4 U	2.4 U	2.4 U	2.4 U	0.839 U	1.03 U	0.576 U	1.11 U	0.599 U	0.901 U	0.896 UJ	1.08 U	9.25 J	0.824 U	2.02 U
2,3,7,8-TCDF	7.4 U	7.4 U	11.8	7.4 U	0.814 U	1.01 U	0.528 U	1.07 U	0.433 U	0.875 U	1.6 U	1.02 U	0.511 U	0.487 U	2.69 U
OCDD	12.7 U	67.8	247	12.7 U	19.4 U	1.3 UK	1.1 UJ	1.17 U	0.812 UJ	16.9 U	6.88 U	1.04 U	1.73 U	1.65 U	3.02 U
OCDF	17.2 U	17.2 U	17.2 U	17.2 U	1.97 U	1.04 U	0.795 U	1.2 U	0.716 U	2.11 U	5.67 U	1.1 U	2.73 U	2.6 U	4.43 U
Dioxin/Furan TEQ[a][2]	17.8 UT	17.8 JT	19.1 T	17.8 UT	1.84 UT	1.11 UJT	0.576 UJT	1.16 UT	0.599 UJT	12.8 JT	2.68 UJT	1.14 UT	10.2 JT	0.897 UT	2.02 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	MW-03-137	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-141	MW-03-81	MW-03-81	MW-03-81	MW-03-81	MW-03-81
Sample_Date:	9/14/2017	11/17/2006	4/25/2019	4/25/2019	5/15/2007	6/1/2009	7/14/2008	7/14/2008	8/15/2008	9/14/2017	10/13/2000	11/16/2006	4/16/2002	4/6/2000	5/14/2007
Collection Depth (ft bgs):	131.5-136.5	136-141	136-140.5	136-140.5	136-141	136-141	136-141	136-141	136-141	136-140.5	75-80	75-80	75-80	75-80	75-80
Sample Type	N-P	N-P	N-P	FD	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.12 U	2.73 U	4.9 U	4.17 U	3.07 U	6.46 U	3.49 U	3.46 U	3.89 U	7.84 U	1 U	2.88 U	8.67 U	6.78 U	3.02 U
1,2,3,4,6,7,8-HpCDF	1.15 U	2.72 U	2.12 U	1.92 U	52.8 J	2.52 U	1.52 U	1.51 U	1.7 U	0.996 U	0.5 U	2.87 U	6.76 U	2.24 U	3.01 U
1,2,3,4,7,8,9-HpCDF	1.14 U	2.91 U	3.88 U	3.23 U	3.27 U	2.12 U	2.77 U	2.75 U	3.09 U	1.63 U	0.5 U	3.07 U	6.19 U	3.16 U	3.22 U
1,2,3,4,7,8-HxCDD	0.999 U	2.3 U	2.68 U	2.37 U	2.59 U	5.05 U	1.43 U	1.42 U	1.59 U	2.36 U	0.6 U	2.43 U	9.71 U	5.99 U	2.55 U
1,2,3,4,7,8-HxCDF	1.18 U	0.958 U	1.56 U	1.21 U	7.67 J	5.24 U	2.62 U	2.6 U	2.93 U	0.937 U	0.4 U	1.01 U	0.91 J	2.57 U	1.06 U
1,2,3,6,7,8-HxCDD	1.05 U	1.38 U	2.4 U	2.08 U	1.55 U	3.65 U	2.05 U	2.03 U	2.29 U	2.43 U	0.6 U	1.46 U	8.86 U	4.03 U	1.53 U
1,2,3,6,7,8-HxCDF	1.22 U	1.24 U	1.41 U	1.19 U	1.4 U	5.17 U	1.96 U	1.95 U	2.19 U	0.849 U	0.4 U	1.31 U	5.24 U	1.92 U	1.38 U
1,2,3,7,8,9-HxCDD	0.97 U	1.51 U	2.58 U	2.25 U	1.7 U	3.41 U	1.4 U	1.39 U	1.56 U	2.45 U	0.6 U	1.59 U	8.86 U	4.62 U	1.67 U
1,2,3,7,8,9-HxCDF	1.22 U	2.36 U	2.5 U	2.02 U	2.66 U	4.45 U	3.01 U	2.98 U	3.36 U	1.32 U	0.5 U	2.5 U	10.6 U	3.05 U	2.62 U
1,2,3,7,8-PeCDD	1.08 U	1.84 U	2.16 U	1.73 U	2.06 U	2.73 U	0.874 U	0.866 U	0.976 U	1.44 U	0.6 U	1.94 U	8 U	6.49 U	2.03 U
1,2,3,7,8-PeCDF	1.11 U	2.4 U	1.53 U	1.01 U	2.7 U	3.21 U	2.09 U	2.07 U	2.34 U	1.57 U	0.5 U	2.53 U	7.05 U	3.19 U	2.66 U
2,3,4,6,7,8-HxCDF	1.14 U	1.87 U	1.52 U	1.32 U	2.1 U	6.41 U	2.51 U	2.48 U	2.8 U	0.915 U	0.4 U	1.98 U	6.95 U	2.25 U	2.07 U
2,3,4,7,8-PeCDF	1.09 U	2.01 U	1.35 U	0.972 U	2.26 U	3.79 U	2.11 U	2.09 U	2.36 U	1.44 U	0.4 U	2.13 U	5.9 U	3.22 U	2.23 U
2,3,7,8-TCDD	1.08 U	0.837 U	2.16 U	1.77 U	0.942 U	0.913 U	0.803 U	0.795 U	0.896 U	2.8 U	1.5	0.884 U	5.81 U	3.19 U	0.928 U
2,3,7,8-TCDF	0.999 U	0.812 U	2.42 U	1.98 U	0.913 U	1.63 U	0.475 U	0.47 U	0.53 U	2.74 U	7.5	0.858 U	4.29 U	2.83 U	0.9 U
OCDD	109 U	15.7 U	10.3 U	9.13 U	17.6 U	7.01 U	1.61 U	1.59 U	1.79 U	4.03 U	4.1 U	16.5 U	11.1 U	9.37 U	17.4 U
OCDF	1.13 U	1.96 U	11.7 U	8.68 U	106 U	5.78 U	2.54 U	2.51 U	2.83 U	5.6 U	1 U	2.07 U	18.5 U	9.88 U	2.18 U
Dioxin/Furan TEQ[a][2]	1.08 UT	1.84 UT	2.16 UT	1.77 UT	3.36 JT	2.73 UT	0.874 UT	0.866 UT	0.976 UT	2.8 UT	2.85 T	1.94 UT	8.09 JT	6.49 UT	2.03 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	MW-03-81	MW-03-81	MW-03-81	MW-03-81	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-I(60)	MW-03-S(27)	MW-03-S(27)
Sample_Date:	5/24/2019	6/25/2001	8/20/2019	8/7/2006	10/13/2000	11/16/2006	4/16/2002	4/6/2000	5/10/2019	5/14/2007	6/25/2001	8/21/2019	8/7/2006	10/13/2000	11/15/2006
Collection Depth (ft bgs):	75-80	75-80	75-80	75-80	55-60	55-60	55-60	55-60	55-60	55-60	55-60	55-60	55-60	12-27	12-27
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	4.72 U	8.81 U	0.635 U	5.95 U	2.4 U	2.76 U	8.75 U	3.2 U	1.94 U	3.07 U	8.81 U	1.19 UJ	5.51 U	29.4	2.75 U
1,2,3,4,6,7,8-HpCDF	1.93 U	7.62 U	0.51 U	8.31 U	1.3 U	2.75 U	6.83 U	2.24 U	1.14 U	3.06 U	7.62 U	0.476 U	7.7 U	3.9	2.74 U
1,2,3,4,7,8,9-HpCDF	3.53 U	10.9 U	0.781 U	7.83 U	1.8 U	2.94 U	6.25 U	3.15 U	1.59 U	3.27 U	10.9 U	0.701 U	7.25 U	0.6 U	2.93 U
1,2,3,4,7,8-HxCDD	2.48 U	14.6 U	0.51 U	4.71 U	1.4 U	2.33 U	9.81 U	7.23 U	1.3 U	2.59 U	14.6 U	0.54 U	4.37 U	0.6 U	2.32 U
1,2,3,4,7,8-HxCDF	1.53 U	11.5 U	0.352 U	4.38 U	0.9 U	0.968 U	5.77 U	3.14 U	0.643 U	1.08 U	11.5 U	0.319 U	4.06 U	3	0.964 U
1,2,3,6,7,8-HxCDD	1.95 U	9.9 U	0.529 U	5.4 U	1.3 U	1.4 U	8.94 U	4.87 U	1.23 U	1.55 U	9.9 U	0.563 U	5 U	2.6	1.39 U
1,2,3,6,7,8-HxCDF	1.4 U	5.94 U	0.376 U	5.1 U	0.9 U	1.26 U	5.29 U	2.35 U	0.656 U	1.4 U	5.94 U	0.315 U	4.72 U	1.1	1.25 U
1,2,3,7,8,9-HxCDD	2.17 U	19.4 U	0.534 U	7.09 U	1.3 U	1.52 U	8.94 U	5.58 U	1.27 U	1.7 U	19.4 U	0.565 U	6.57 U	1.1 U	1.52 U
1,2,3,7,8,9-HxCDF	2.42 U	11.4 U	0.656 UJ	5.42 U	1.2 U	2.39 U	10.7 U	3.72 U	0.973 U	2.66 U	11.4 U	0.668 UJ	5.03 U	0.5 U	2.38 U
1,2,3,7,8-PeCDD	1.9 U	6.63 U	0.538 U	6.22 U	1.1 U	1.86 U	8.08 U	5.7 U	1.02 U	2.06 U	6.63 U	0.501 U	5.77 U	0.5 U	1.85 U
1,2,3,7,8-PeCDF	1.44 U	5.25 U	0.165 U	3.49 U	0.9 U	2.42 U	7.12 U	3.04 U	0.737 U	2.7 U	5.25 U	0.351 U	3.24 U	1.6 U	2.42 U
2,3,4,6,7,8-HxCDF	1.56 U	19.6 U	0.376 U	5.64 U	0.9 U	1.89 U	7.02 U	2.75 U	0.663 U	2.1 U	19.6 U	0.344 U	5.22 U	0.4 U	1.88 U
2,3,4,7,8-PeCDF	1.14 U	27.6 U	0.147 U	4.25 U	0.9 U	2.03 U	5.96 U	3.07 U	0.652 U	2.26 U	27.6 U	0.296 U	3.94 U	0.4 U	2.03 U
2,3,7,8-TCDD	1.76 U	6.63 U	0.376 U	3.25 U	1 U	0.846 U	5.87 U	4.03 U	0.86 U	0.942 U	6.63 U	0.33 U	3.02 U	0.5 U	0.843 U
2,3,7,8-TCDF	2.07 U	5.54 U	0.505 U	4.14 U	0.8 U	0.821 U	4.33 U	2.14 U	1.05 U	0.913 U	5.54 U	0.467 U	3.83 U	2.5	0.818 U
OCDD	16.5 J	5.2 U	2.49 UJ	12.2 U	5.5	15.8 U	5.3 U	12.3 U	5.25 UJ	17.6 U	23.6 U	26.8 J	12.4 U	151	15.8 U
OCDF	8.83 U	22.7 U	1.58 U	56.3 U	2.8 U	1.98 U	18.7 U	12.7 U	2.79 U	2.21 U	22.7 U	1.5 UJK	52.2 U	8.6	1.98 U
Dioxin/Furan TEQ[a][2]	1.9 JT	8.28 UT	0.538 UJT	6.22 UT	1.1 T	1.86 UT	8.08 UT	5.7 UT	1.02 UJT	2.06 UT	8.28 UT	0.509 JT	5.77 UT	1.8 T	1.85 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	MW-03-S(27)	MW-03-S(27)	MW-03-S(27)	MW-03-S(27)	MW-03-S(27)	MW-03-S(27)	NDP-101-GW	NWN-10-26	NWN-10-26	NWN-12-20	NWN-12-20	NWN-4-15	NWN-4-15	NWN-5-20	NWN-5-20
Sample_Date:	4/6/2000	5/14/2007	5/28/2019	8/28/2019	8/28/2019	8/7/2006	12/3/2003	11/2/2016	4/21/2017	10/27/2016	4/20/2017	10/19/2016	4/20/2017	10/19/2016	4/20/2017
Collection Depth (ft bgs):	12-27	12-27	12-27	12-27	12-27	12-27	0.01-0.01	11-26	11-26	10-20	10-20	5-15	5-15	10-20	10-20
Sample Type	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6.35 U	2.97 U	1.37 U	3.48 U	2.3 U	5.48 U	5.2 J	4.7 J	4.55 J	9.54 J	16.9 J	2.3 UJ	2.46 J	2.2 UJ	1.16 U
1,2,3,4,6,7,8-HpCDF	3.29 U	2.96 U	0.802 U	2.34 U	1.01 U	7.66 U	17.7 U	2.7 UJ	1.94 U	3.73 J	4.41 J	0.59 UJ	0.481 U	0.661 U	0.59 U
1,2,3,4,7,8,9-HpCDF	4.63 U	3.17 U	1.13 U	3.3 U	1.31 U	7.21 U	12.5 U	1.36 U	2.95 U	0.506 U	1.21 U	0.891 U	0.706 U	0.97 U	0.804 U
1,2,3,4,7,8-HxCDD	6.74 U	2.51 U	0.995 U	1.77 U	1.09 U	4.34 U	6.55 U	1.08 U	2.57 U	0.561 U	1.48 U	0.889 U	1.04 U	0.96 U	0.84 U
1,2,3,4,7,8-HxCDF	2.82 U	1.04 U	0.654 U	1.14 U	0.778 U	4.04 U	17.3 U	2.6 UJ	1.7 U	1.84 UJK	2.73 J	0.575 U	0.643 U	0.553 U	0.56 U
1,2,3,6,7,8-HxCDD	4.54 U	1.51 U	0.968 U	1.89 U	1.08 U	4.97 U	8.17 U	1.07 U	2.29 U	0.569 U	1.35 U	0.809 U	1.01 U	0.871 U	0.773 U
1,2,3,6,7,8-HxCDF	2.12 U	1.36 U	0.668 U	1.13 U	0.832 U	4.7 U	8.83 U	0.845 U	1.57 U	0.762 J	1.01 U	0.6 U	0.633 U	0.528 U	0.535 U
1,2,3,7,8,9-HxCDD	5.2 U	1.64 U	0.989 U	1.88 U	1.11 U	6.53 U	14.2 U	1.1 U	2.47 U	0.583 U	1.45 U	0.866 U	1.05 U	0.934 U	0.823 U
1,2,3,7,8,9-HxCDF	3.35 U	2.58 U	0.908 U	1.53 U	1.1 U	5 U	30.3 U	1.19 U	2.53 U	0.841 J	1.49 U	0.919 U	0.946 U	0.825 U	0.762 U
1,2,3,7,8-PeCDD	6.52 U	2 U	0.895 U	1.33 U	0.983 U	5.73 U	7.41 U	0.752 U	1.93 U	0.428 U	0.728 U	0.708 U	0.745 U	0.752 U	0.678 U
1,2,3,7,8-PeCDF	3.3 U	2.61 U	0.641 U	0.853 U	0.861 U	3.22 U	4.46 U	0.675 UJ	2.2 U	1.17 J	1.52 UJK	0.59 UJ	0.797 U	0.53 U	0.619 U
2,3,4,6,7,8-HxCDF	2.48 U	2.04 U	0.685 U	1.23 U	0.803 U	5.19 U	20.7 U	0.857 U	1.64 U	0.348 U	1.07 U	0.624 U	0.643 U	0.528 U	0.52 U
2,3,4,7,8-PeCDF	3.33 U	2.19 U	0.585 U	0.758 U	0.78 U	3.91 U	5.51 U	0.454 U	1.71 U	0.606 UJK	0.94 U	0.49 U	0.71 U	0.534 U	0.499 U
2,3,7,8-TCDD	4.5 U	0.912 U	0.991 U	1.62 U	1.28 U	3 U	3.13 U	0.881 U	2.7 U	0.336 U	0.857 U	0.73 U	0.864 U	0.797 U	0.823 U
2,3,7,8-TCDF	2.23 U	0.885 U	1.33 U	2.02 U	1.6 U	3.81 U	5.98 U	1.03 U	4.68 U	0.489 J	1.12 U	0.673 U	1.5 U	0.75 U	1.31 U
OCDD	10.4 U	17.1 U	1.92 U	3.38 U	3.17 U	16.2 U	26.4 J	50.4 J	35.8 J	142	238	13.5 UJ	13.9 J	18.2 UJ	7.9 J
OCDF	9.86 U	2.14 U	3.27 U	4.27 U	3.88 U	51.9 U	17.2 U	4.52 U	7 U	9.74 J	7.94 UJK	2.64 U	2.18 U	2.82 U	1.67 U
Dioxin/Furan TEQ[a][2]	6.52 UT	2 UT	0.991 UT	1.62 UT	1.28 UT	5.73 UT	7.47 JT	0.943 JT	2.76 JT	0.851 JT	1.41 JT	0.73 UJT	0.893 JT	0.797 UJT	0.825 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	NWN-6-31	NWN-6-31	NWN-8-30	NWN-8-30	PZ-03-40W	RP-03-26	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119
Sample_Date:	10/31/2016	4/21/2017	10/27/2016	4/20/2017	11/28/2006	4/7/2000	12/11/2017	3/19/2018	3/19/2018	3/23/2006	3/23/2006	4/13/2004	4/14/2005	4/29/2002	5/3/2002
Collection Depth (ft bgs):	21-31	21-31	15-30	15-30	-	20-25	114-119	114-119	114-119	114-119	114-119	114-119	114-119	114-119	114-119
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	55.3	62.2	5.64 J	1.16 U	2200	1000	1.01 U	0.736 U	1.06 U	5.2 U	5.1 U	7.77 U	12 U	8.67 UJ	8.67 U
1,2,3,4,6,7,8-HpCDF	1.79 UJ	1.34 U	1.23 J	0.694 U	86 U	2.13 U	1.11 U	0.295 U	1.08 U	3.7 U	3.2 U	17.6 U	12 U	6.76 UJ	6.76 U
1,2,3,4,7,8,9-HpCDF	0.779 U	2.07 U	0.585 U	0.996 U	27 U	3 U	1.1 U	0.417 U	1.07 U	4.1 U	4.3 U	12.5 U	12 U	6.19 UJ	6.19 U
1,2,3,4,7,8-HxCDD	1.48 U	4.58 U	0.472 U	0.914 U	33 U	4.88 U	1.02 U	0.634 U	0.942 U	6 U	5 U	6.54 U	12 U	9.71 UJ	9.71 U
1,2,3,4,7,8-HxCDF	0.544 UJ	1.69 U	1.27 J	0.486 U	20 U	2.66 U	1.1 U	0.348 U	0.982 U	5.1 U	4.2 U	17.3 U	12 U	5.71 UJ	5.71 U
1,2,3,6,7,8-HxCDD	2.95 J	4.25 U	0.468 U	0.871 U	150 J	55	1.04 U	0.61 U	1 U	5.8 U	4.6 U	8.15 U	12 U	8.8 UJ	8.86 U
1,2,3,6,7,8-HxCDF	0.505 U	1.61 U	0.474 U	0.469 U	17 U	2 U	1.11 U	0.343 U	1.03 U	3.9 U	3.5 U	8.82 U	12 U	5.24 UJ	5.24 U
1,2,3,7,8,9-HxCDD	2.06 J	4.52 U	0.484 U	0.912 U	150 J	72	1.01 U	0.64 U	0.971 U	5.5 U	4.5 U	14.2 U	12 U	8.86 UJ	8.86 U
1,2,3,7,8,9-HxCDF	0.674 U	2.4 U	0.864 UJK	0.664 U	20 U	3.16 U	1.03 UJ	0.472 U	1.02 U	3.3 U	3.5 U	30.2 U	12 U	10.6 UJ	10.6 U
1,2,3,7,8-PeCDD	0.719 U	1.89 U	0.349 U	0.726 U	31 U	4.93 U	1.11 U	0.335 U	1.26 U	6.8 U	6.3 U	7.39 U	12 U	8 UJ	8 U
1,2,3,7,8-PeCDF	0.488 U	1.51 U	1.21 UJK	0.603 U	18 U	3.17 U	0.983 U	0.492 UJ	1.13 U	4 U	3.5 U	4.45 U	12 U	7.05 UJ	7.05 U
2,3,4,6,7,8-HxCDF	0.622 J	1.74 U	0.439 U	0.471 U	17 U	2.34 U	1.02 U	0.354 U	0.964 U	3 U	3 U	20.7 U	12 U	6.95 UJ	6.95 UJ
2,3,4,7,8-PeCDF	0.515 U	1.41 U	0.653 J	0.501 U	18 U	3.21 U	0.978 U	0.246 U	1.09 U	3.2 U	2.7 U	5.5 U	12 U	5.9 UJ	5.9 UJ
2,3,7,8-TCDD	0.494 U	2.34 U	0.39 U	0.906 U	18 U	5.17 U	1.1 U	0.618 U	1.41 U	1.2 U	3 U	3.13 U	2.5 U	5.81 UJ	5.81 U
2,3,7,8-TCDF	0.867 U	4.1 U	0.806 J	1.37 U	13 U	3.44 U	0.994 U	0.415 U	1.27 U	2.4 U	2.1 U	5.97 U	2.5 U	4.29 UJ	4.29 UJ
OCDD	255	265	41.3 J	4.86 J	12000	4200	95.2 U	0.827 UJ	1.19 U	9.1 U	8.8 U	13.1 U	25 U	33.5 J	1.6 U
OCDF	2.12 U	5.88 U	2.97 J	1.93 U	120 U	5.08 U	0.979 U	0.813 U	1.4 U	9.5 U	7.6 U	17.2 U	25 U	18.5 UJ	18.5 U
Dioxin/Furan TEQ[a][2]	1.91 JT	3.04 T	0.875 JT	0.907 JT	86.6 JT	29.1 T	1.11 UJT	0.618 UJT	1.41 UT	6.8 UT	6.3 UT	7.39 UT	12 UT	8.01 JT	8 UJT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-119	RP-07-30	RP-07-30	RP-07-30	RP-07-30	RP-07-30	RP-07-30	RP-07-30
Sample_Date:	5/9/2007	6/11/2018	6/2/2009	8/4/2006	9/12/2017	9/12/2017	9/12/2017	9/6/2007	12/12/2017	3/23/2006	5/3/2002	5/9/2007	8/21/2019	8/4/2006	9/6/2007
Collection Depth (ft bgs):	114-119	114-119	114-119	114-119	114-119	114-119	114-119	114-119	25-30	25-30	25-30	25-30	25-30	25-30	25-30
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.9 U	1.25 U	6.24 U	5.23 U	2.18 U	1.15 U	1.13 U	3.03 U	1.92 U	5.1 U	9 U	2.91 U	0.852 UJ	5.59 U	40 J
1,2,3,4,6,7,8-HpCDF	5.63 U	1.22 U	2.43 U	7.3 U	0.625 U	0.884 U	0.564 U	3.02 U	0.588 U	2.8 U	2.5 U	4.71 U	0.542 U	7.8 U	7.49 U
1,2,3,4,7,8,9-HpCDF	3.09 U	1.24 U	2.05 U	6.88 U	1.05 U	0.878 U	0.56 U	3.23 U	0.85 U	3.6 U	6.22 U	3.11 U	0.844 U	7.35 U	3.38 U
1,2,3,4,7,8-HxCDD	2.45 U	1.11 U	4.87 U	4.14 U	1.4 U	0.841 U	1.1 U	2.56 U	1.1 U	4.1 U	9.76 U	2.46 U	0.54 U	4.42 U	2.68 U
1,2,3,4,7,8-HxCDF	1.02 U	1.12 U	5.06 U	3.85 U	0.588 U	0.786 U	1.23 U	1.06 U	0.684 U	3.6 U	5.74 U	1.02 U	0.392 U	4.11 U	3.61 U
1,2,3,6,7,8-HxCDD	1.47 U	1.13 U	3.52 U	4.74 U	1.35 U	0.888 U	1.16 U	1.53 U	1.01 U	4 U	8.9 U	1.48 U	0.574 U	5.07 U	1.61 U
1,2,3,6,7,8-HxCDF	1.32 U	1.19 U	4.99 U	4.48 U	0.574 U	0.813 U	1.27 U	1.38 U	0.676 U	2.8 U	5.26 U	1.33 U	0.406 U	4.79 U	1.45 U
1,2,3,7,8,9-HxCDD	1.6 U	1.18 U	3.29 U	6.23 U	1.41 U	0.817 U	1.07 U	1.67 U	1.08 U	3.8 U	8.9 U	1.61 U	0.57 U	6.66 U	1.75 U
1,2,3,7,8,9-HxCDF	2.51 U	1.18 U	4.29 U	4.76 U	0.924 U	0.807 U	1.26 U	2.62 U	0.973 U	2.8 U	10.6 U	2.52 U	0.629 UJ	5.09 U	2.75 U
1,2,3,7,8-PeCDD	1.95 U	1.14 U	2.63 U	5.47 U	0.975 U	0.855 U	1.04 U	2.04 U	0.781 U	5.4 U	8.04 U	1.96 U	0.505 U	5.84 U	2.14 U
1,2,3,7,8-PeCDF	2.55 U	1.38 U	3.1 U	3.07 U	0.981 U	1.29 U	1 U	2.66 U	1 U	3.6 U	7.08 U	2.56 U	0.487 UJ	3.28 U	2.79 U
2,3,4,6,7,8-HxCDF	1.99 U	1.09 U	6.19 U	4.95 U	0.619 U	0.758 U	1.18 U	2.08 U	0.714 U	2.5 U	6.99 U	2 U	0.414 U	5.29 U	2.18 U
2,3,4,7,8-PeCDF	2.14 U	1.22 U	3.66 U	3.73 U	0.861 U	1.26 U	0.976 U	2.24 U	0.877 U	1.7 U	5.93 U	2.15 U	0.333 U	3.99 U	2.34 U
2,3,7,8-TCDD	0.889 U	1.21 U	0.881 U	2.86 U	1.35 U	1.2 U	1.28 U	34.6	1.47 U	3.1 U	5.84 U	0.894 U	0.629 UJK	3.06 U	0.974 U
2,3,7,8-TCDF	0.863 U	1.19 U	1.58 U	3.63 U	2.08 U	1.05 U	1.8 U	0.902 U	2.07 U	2.2 U	4.31 U	0.867 U	0.493 U	3.88 U	0.945 U
OCDD	16.6 U	1.38 UK	6.76 U	10.4 U	3.38 U	5.34	3.86	17.4 U	1.86 U	12 U	98	16.7 U	3.73 UJ	19 U	604
OCDF	2.09 U	1.15 U	5.58 U	49.4 U	3.36 U	0.995 U	1.17 U	2.18 U	2.02 U	7.4 U	6.7 J	2.1 U	1.45 U	52.9 U	23.1 U
Dioxin/Furan TEQ[a][2]	1.95 UT	1.21 UT	2.63 UT	5.47 UT	1.35 UT	1.2 T	1.28 T	36.6 T	1.47 UT	5.4 UT	8.07 JT	1.96 UT	0.629 UJT	5.84 UT	2.72 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-07-55	RP-07-55	RP-07-55	RP-07-55	RP-07-55	RP-07-55	RP-07-55	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84
Sample_Date:	3/22/2006	5/29/2019	5/3/2002	5/9/2007	8/4/2006	9/15/2017	9/6/2007	12/11/2017	3/19/2018	3/19/2018	3/23/2006	4/13/2004	4/14/2005	5/10/2007	5/3/2002
Collection Depth (ft bgs):	50-55	50-55	50-55	50-55	50-55	50-55	50-55	79-84	79-84	79-84	79-84	79-84	79-84	79-84	79-84
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	6 U	1.28 U	4.5 U	2.9 U	5.33 U	3.05 U	5.11 U	1.13 U	0.656 U	1.05 U	5.2 U	2.6 U	12 U	2.92 U	1.9 J
1,2,3,4,6,7,8-HpCDF	3 U	0.614 U	6.76 U	2.89 U	7.44 U	1.13 U	3.01 U	1.05 U	0.394 U	0.975 U	2.6 U	17.7 U	12 U	39.5 J	6.76 U
1,2,3,4,7,8,9-HpCDF	4.5 U	1.07 U	6.19 U	3.1 U	7.01 U	1.77 U	3.22 U	1.04 U	0.563 U	0.962 U	4 U	12.6 U	12 U	3.11 U	6.19 U
1,2,3,4,7,8-HxCDD	5.4 U	1.07 U	9.71 U	2.45 U	4.22 U	2.17 U	2.55 U	1.1 U	0.588 U	0.936 U	3.8 U	1.7 J	12 U	2.46 U	9.71 U
1,2,3,4,7,8-HxCDF	3.8 U	0.58 U	5.71 U	4.8 J	3.92 U	1.01 U	1.06 U	1.07 U	0.399 U	1.09 U	3.2 U	2.4 J	12 U	10.5 J	5.71 U
1,2,3,6,7,8-HxCDD	5.1 U	1.05 U	8.86 U	1.47 U	4.83 U	2.22 U	1.53 U	1.12 U	0.563 U	0.997 U	3.9 U	1.7 J	12 U	1.48 U	8.86 U
1,2,3,6,7,8-HxCDF	3.2 U	0.595 U	5.24 U	4.4 J	4.56 U	1.05 U	1.38 U	1.08 U	0.392 U	1.15 U	2.8 U	1.8 J	12 U	1.33 U	5.24 U
1,2,3,7,8,9-HxCDD	4.9 U	1.08 U	8.86 U	1.6 U	6.35 U	2.26 U	1.67 U	1.09 U	0.592 U	0.965 U	3.6 U	1.9 J	12 U	1.61 U	8.86 U
1,2,3,7,8,9-HxCDF	3.6 U	0.896 U	10.6 U	2.52 U	4.85 U	1.44 U	2.61 U	1 UJ	0.685 UJ	1.13 U	3 U	1.5 J	12 U	2.53 U	10.6 U
1,2,3,7,8-PeCDD	3.7 U	0.96 U	8 U	5.67 J	5.57 U	2.3 U	2.03 U	1.16 U	0.523 U	1.54 U	6.3 U	7.43 U	12 U	1.96 U	8 U
1,2,3,7,8-PeCDF	2.9 U	0.563 U	7.05 U	5.89 J	3.13 U	2.19 U	2.65 U	1.04 U	0.54 UJ	1.06 U	3.7 U	3 U	12 U	2.56 U	7.05 U
2,3,4,6,7,8-HxCDF	3 U	0.631 U	6.95 U	2.88 J	5.05 U	1.09 U	2.07 U	0.994 U	0.415 U	1.07 U	2.6 U	1.2 J	12 U	2 U	6.95 U
2,3,4,7,8-PeCDF	2.8 U	0.533 U	5.9 U	5.06 J	3.8 U	2.04 U	2.23 U	1.04 U	0.305 U	1.03 U	2 U	1.7 U	12 U	2.15 U	5.9 U
2,3,7,8-TCDD	1.6 U	1.21 U	5.81 U	0.891 U	2.91 U	3.3 U	0.926 U	1.12 U	0.787 U	1.24 U	1.3 U	3.14 U	2.5 U	0.895 U	5.81 U
2,3,7,8-TCDF	3 U	1.33 U	4.29 U	0.865 U	3.7 U	3.92 U	0.898 U	1.08 U	0.687 U	1.62 U	2.7 U	6 U	2.5 U	0.868 U	4.29 U
OCDD	7.6 U	2.48 UJ	38.5	16.7 U	13.7 U	7.78 UJK	43.4 J	1.96 U	1.87 UJ	0.953 U	7.4 U	18.9 J	25 U	16.7 U	22.6 U
OCDF	9.6 U	2.65 U	2.4 U	2.09 U	50.4 U	7.41 U	2.17 U	1.02 UK	1.02 U	0.957 U	6.1 U	3.3 U	25 U	79.3 U	18.5 U
Dioxin/Furan TEQ[a][2]	3.7 UT	1.21 UJT	8.01 T	9.46 JT	5.57 UT	3.3 UJT	2.04 JT	1.16 UJT	0.787 UJT	1.54 UT	6.3 UT	8.66 JT	12 UT	3.41 JT	8.02 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-07-84	RP-20-110	RP-20-110	RP-20-110	RP-20-110	RP-20-25	RP-20-25	RP-20-25	RP-20-25	RP-20-25
Sample_Date:	6/11/2018	6/2/2009	8/7/2006	9/12/2017	9/12/2017	9/6/2007	11/13/2006	4/30/2019	5/14/2007	9/14/2017	11/10/2006	5/14/2007	5/14/2007	5/29/2019	8/12/2019
Collection Depth (ft bgs):	79-84	79-84	79-84	79-84	79-84	79-84	105-109	105-109	105-109	105-109	10-25	10-25	10-25	10-25	10-25
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.01 U	6.54 U	5.5 U	1.91 U	1.06 U	5.68 U	2.73 U	3.64 U	3.13 U	2.25 U	2.74 U	10.6 J	30.2 J	1.59 U	3.08 U
1,2,3,4,6,7,8-HpCDF	0.985 U	2.55 U	7.68 U	0.648 U	0.561 U	2.92 U	2.72 U	1.51 U	3.96 U	0.761 U	5.78	8.77 U	13.4 U	0.581 U	1.35 U
1,2,3,4,7,8,9-HpCDF	0.997 U	2.15 U	7.23 U	1.07 U	0.557 U	3.13 U	2.91 U	1.97 U	3.34 U	1.18 U	2.92 U	3.35 U	3.09 U	0.948 U	2.14 U
1,2,3,4,7,8-HxCDD	1.02 U	5.11 U	4.35 U	1.15 U	1.22 U	2.47 U	2.3 U	2.64 U	2.64 U	2.25 U	2.31 U	2.65 U	2.45 U	0.969 U	2.27 U
1,2,3,4,7,8-HxCDF	1.03 U	5.3 U	4.05 U	0.559 U	1.05 U	1.03 U	0.958 U	0.974 U	1.1 U	0.918 U	6.01 U	10 J	13.5 J	0.529 U	1.32 U
1,2,3,6,7,8-HxCDD	1.04 U	3.69 U	4.99 U	1.06 U	1.28 U	1.49 U	1.38 U	2.37 U	1.59 U	2.19 U	1.48 U	1.59 U	1.47 U	0.882 U	2 U
1,2,3,6,7,8-HxCDF	1.09 U	5.23 U	4.71 U	0.554 U	1.09 U	1.34 U	1.24 U	0.968 U	1.43 U	0.924 U	2.87 U	2.22 J	5.3 J	0.535 U	1.25 U
1,2,3,7,8,9-HxCDD	1.08 U	3.45 U	6.55 U	1.12 U	1.18 U	1.62 U	1.51 U	2.52 U	1.73 U	2.29 U	2.32 U	1.74 U	1.6 U	0.94 U	2.14 U
1,2,3,7,8,9-HxCDF	1.08 U	4.5 U	5.01 U	0.864 U	1.08 U	2.54 U	2.36 U	1.3 U	2.71 U	1.16 U	3.77 U	2.72 U	3.3 J	0.762 U	1.98 U
1,2,3,7,8-PeCDD	1.01 U	2.76 U	5.75 U	1.22 U	1.04 U	1.97 U	1.84 U	0.97 U	2.11 U	1.31 U	1.88 U	2.11 U	2.42 J	0.707 U	1.99 U
1,2,3,7,8-PeCDF	1.27 U	3.25 U	3.23 U	0.957 U	1.02 U	2.58 U	2.4 U	0.731 U	2.75 U	1.24 U	4.59 U	2.76 U	9.53 J	0.599 U	1.49 U
2,3,4,6,7,8-HxCDF	1 U	6.49 U	5.21 U	0.55 U	1.02 U	2.01 U	1.87 U	1.01 U	2.15 U	0.903 U	2.53 U	2.16 U	2.74 J	0.531 U	1.27 U
2,3,4,7,8-PeCDF	1.12 U	3.84 U	3.93 U	0.881 U	0.997 U	2.16 U	2.01 U	0.689 U	2.31 U	1.1 U	3.46 U	2.32 U	6.57 J	0.547 U	1.39 U
2,3,7,8-TCDD	1.02 U	0.924 U	3.01 U	1.26 U	1.26 U	41.3	0.837 U	0.727 U	0.961 U	1.78 U	0.841 U	0.964 U	0.89 U	1.22 U	1.19 U
2,3,7,8-TCDF	1.04 U	1.65 U	3.82 U	1.78 U	1.12 U	0.872 U	0.812 U	1.13 U	0.932 U	1.8 U	2.04 J	0.935 U	6.67 J	1.18 U	1.58 U
OCDD	1.11 U	7.09 U	12.4 U	3.11 U	10.3	40.7 J	15.7 U	11.4 UJ	18 U	4.69 UJ	85.8 J	84 J	284 J	2.44 U	6.15 U
OCDF	1.14 U	5.85 U	52 U	4.03 U	1.27 U	2.11 U	1.96 U	2.2 U	2.25 U	3.74 U	9.02 U	19.3 U	30.5 U	2.77 U	6.92 U
Dioxin/Furan TEQ[a][2]	1.02 UT	2.76 UT	5.75 UT	1.26 UT	1.26 T	43.3 JT	1.84 UT	0.97 UJT	2.11 UT	1.78 UJT	2.17 JT	3.46 JT	9.11 JT	1.22 UT	1.99 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-20-97	RP-20-97	RP-20-97	RP-20-97	RP-21-125	RP-21-125	RP-21-125	RP-21-125	RP-21-150	RP-21-150	RP-21-150	RP-21-150	RP-21-150	RP-21-150	RP-21-28
Sample_Date:	11/10/2006	5/14/2007	5/8/2019	8/12/2019	11/14/2006	5/11/2007	5/30/2019	8/26/2019	11/15/2006	11/15/2006	5/11/2007	5/6/2019	9/14/2017	9/14/2017	11/14/2006
Collection Depth (ft bgs):	87-97	87-97	87-97	87-97	115-125	115-125	115-125	115-125	145-150	145-150	145-150	145-150	145-150	145-150	13-28
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.88 U	3.04 U	1.85 U	3.46 U	2.76 U	2.91 U	1.69 U	1.22 U	2.74 U	2.85 U	2.9 U	4.01 U	6.36 U	1.07 U	2.81 U
1,2,3,4,6,7,8-HpCDF	2.87 U	3.59 U	0.689 U	1.44 U	2.75 U	3.46 J	0.87 U	0.581 U	2.73 U	2.84 U	7.91 U	1.85 U	1.32 U	1.17 U	2.8 U
1,2,3,4,7,8,9-HpCDF	3.07 U	3.25 U	0.965 U	2.43 U	2.94 U	3.11 U	1.27 U	0.903 U	2.93 U	3.04 U	3.09 U	2.69 U	2.38 U	1.17 U	3 U
1,2,3,4,7,8-HxCDD	2.43 U	2.57 U	1.17 U	1.9 U	2.33 U	2.46 U	1.19 U	0.748 U	2.32 U	2.41 U	2.45 U	2.03 U	2.56 U	1.23 U	2.37 U
1,2,3,4,7,8-HxCDF	1.01 U	1.07 U	0.753 U	1.09 U	0.968 U	2.61 J	0.72 U	0.513 U	0.963 U	1 U	5.57 J	1.33 U	1.75 U	1.23 U	0.987 U
1,2,3,6,7,8-HxCDD	1.46 U	1.54 U	1.16 U	1.89 U	1.4 U	1.48 U	1.16 U	0.738 U	1.39 U	1.44 U	6.3 J	1.82 U	2.4 U	1.3 U	1.42 U
1,2,3,6,7,8-HxCDF	1.31 U	1.39 U	0.782 U	1.13 U	1.26 U	1.62 J	0.713 U	0.517 U	1.25 U	1.3 U	4.89 J	1.32 U	1.69 U	1.28 U	1.28 U
1,2,3,7,8,9-HxCDD	1.59 U	1.68 U	1.19 U	1.93 U	1.52 U	1.61 U	1.18 U	0.757 U	1.52 U	1.57 U	1.6 U	1.92 U	2.54 U	1.2 U	1.55 U
1,2,3,7,8,9-HxCDF	2.5 U	2.64 U	1.04 U	1.6 U	2.39 U	2.52 U	0.996 U	0.848 UJ	2.38 U	2.47 U	2.51 U	2.08 U	2.56 U	1.27 U	2.43 U
1,2,3,7,8-PeCDD	1.94 U	2.5 U	0.952 U	1.7 U	1.86 U	2 J	0.945 U	0.725 U	1.85 U	1.92 U	3.8 J	1.73 U	2.75 U	1.05 U	1.89 U
1,2,3,7,8-PeCDF	2.53 U	2.68 U	0.866 U	1.22 U	2.42 U	2.56 U	0.652 U	0.57 U	2.41 U	2.51 U	5.17 J	1.42 U	1.65 U	1.03 U	2.47 U
2,3,4,6,7,8-HxCDF	1.98 U	2.09 U	0.8 U	1.17 U	1.89 U	2 U	0.759 U	0.558 U	1.88 U	1.95 U	4.19 J	1.37 U	1.79 U	1.19 U	1.93 U
2,3,4,7,8-PeCDF	2.13 U	2.25 U	0.721 U	1.2 U	2.03 U	2.15 U	0.61 U	0.502 U	2.03 U	2.1 U	5.07 J	1.24 U	1.48 U	1.01 U	2.07 U
2,3,7,8-TCDD	0.884 U	0.934 U	1.52 U	1.34 U	0.846 U	0.894 U	1.08 U	0.545 U	0.842 U	0.874 U	0.889 U	1.57 U	2.96 U	1.13 U	0.863 U
2,3,7,8-TCDF	0.858 U	0.906 U	2.07 U	1.14 U	0.821 U	0.867 U	1.29 U	0.645 U	0.817 U	0.848 U	0.863 U	2.25 U	3.75 U	0.972 U	0.837 U
OCDD	16.5 U	17.5 U	11.3 UJ	14.2 UJ	15.8 U	16.7 U	3.46 UJ	2.25 U	15.8 U	16.4 U	16.6 U	4.35 U	5.4 U	1.38 UK	16.1 U
OCDF	2.07 U	2.19 U	1.9 U	6.7 U	1.98 U	6.37 U	3.51 U	2.84 U	2.02 U	2.05 U	2.09 U	5.93 U	7.65 U	1.04 U	2.02 U
Dioxin/Furan TEQ[a][2]	1.94 UT	2.5 UT	1.52 UJT	1.7 UJT	1.86 UT	3.35 JT	1.08 UJT	0.725 UJT	1.85 UT	1.92 UT	8.46 JT	1.73 UT	2.96 UT	1.13 UT	1.89 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-21-28	RP-21-28	RP-21-28	RP-22-151	RP-22-151	RP-22-151	RP-22-151	RP-22-151	RP-22-29	RP-22-29	RP-22-29	RP-22-29	RP-22-75	RP-22-75	RP-22-75
Sample_Date:	5/11/2007	5/30/2019	8/20/2019	11/8/2006	5/10/2007	5/3/2019	9/14/2017	9/14/2017	11/7/2006	5/10/2007	5/16/2019	8/13/2019	11/7/2006	5/10/2007	5/16/2019
Collection Depth (ft bgs):	13-28	13-28	13-28	146-151	146-151	146-151	146-151	146-151	14-29	14-29	14-29	14-29	65-75	65-75	65-75
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.95 U	1.27 U	0.999 UJ	2.94 U	2.91 U	4.15 U	3.87 U	1.02 U	6.95 U	3.09 U	3.84 U	2.82 U	2.94 U	2.93 U	4.36 U
1,2,3,4,6,7,8-HpCDF	2.94 U	0.726 U	0.213 U	2.93 U	2.9 U	1.89 U	1.06 U	0.893 U	2.94 U	3.08 U	2.03 U	1.76 U	2.93 U	2.92 U	1.96 U
1,2,3,4,7,8,9-HpCDF	3.15 U	1.05 U	0.64 U	3.14 U	3.1 U	2.99 U	1.84 U	0.888 U	3.14 U	3.3 U	3.25 U	2.65 U	3.14 U	3.13 U	3 U
1,2,3,4,7,8-HxCDD	2.49 U	0.999 U	0.429 U	2.48 U	2.46 U	2.79 U	2.43 U	1.14 U	2.49 U	2.61 U	2.23 U	1.96 U	2.48 U	2.47 U	2.48 U
1,2,3,4,7,8-HxCDF	1.04 U	0.646 U	0.315 U	1.86 U	1.02 U	1.57 U	1.93 U	0.765 U	1.27 U	1.09 U	1.47 U	1.33 U	1.03 U	1.03 U	1.63 U
1,2,3,6,7,8-HxCDD	1.5 U	0.854 U	0.442 U	1.49 U	1.47 U	2.3 U	2.41 U	1.21 U	1.49 U	1.57 U	2 U	1.84 U	1.49 U	1.49 U	2.15 U
1,2,3,6,7,8-HxCDF	1.35 U	0.676 U	0.331 U	1.7 U	1.33 U	1.45 U	2 U	0.791 U	1.34 U	1.41 U	1.37 U	1.34 U	1.34 U	1.34 U	1.5 U
1,2,3,7,8,9-HxCDD	1.63 U	0.929 U	0.446 U	1.63 U	1.61 U	2.53 U	2.47 U	1.11 U	1.63 U	1.71 U	2.1 U	1.92 U	1.62 U	1.62 U	2.29 U
1,2,3,7,8,9-HxCDF	2.56 U	0.977 J	0.861 UJ	2.55 U	2.52 U	2.3 U	2.69 U	0.785 U	2.55 U	2.68 U	2.31 U	1.92 U	2.55 U	2.54 U	2.48 U
1,2,3,7,8-PeCDD	1.99 U	0.832 U	0.417 U	3.49 U	1.96 U	2.16 U	2.27 U	1.15 U	1.98 U	2.08 U	2.31 U	1.82 U	1.98 U	1.97 U	2.18 U
1,2,3,7,8-PeCDF	2.6 U	0.465 U	0.331 U	4.6 U	2.56 U	1.54 U	1.6 U	1.12 U	2.59 U	2.72 U	1.51 U	1.78 U	2.59 U	2.58 U	1.53 U
2,3,4,6,7,8-HxCDF	2.03 U	0.678 U	0.339 U	2.02 U	2 U	1.61 U	2.08 U	0.738 U	2.02 U	2.12 U	1.54 U	1.42 U	2.02 U	2.01 U	1.69 U
2,3,4,7,8-PeCDF	2.18 U	0.415 U	0.303 U	3.74 U	2.15 U	1.3 U	1.42 U	1.09 U	2.17 U	2.28 U	1.34 U	1.65 U	2.17 U	2.16 U	1.25 U
2,3,7,8-TCDD	0.907 U	0.8 U	0.298 U	0.903 U	0.893 U	2.04 U	3.08 U	1.04 U	0.904 U	0.949 U	1.88 U	1.17 U	0.902 U	0.899 U	2.23 U
2,3,7,8-TCDF	0.88 U	0.981 U	0.397 U	0.876 U	0.866 U	2.69 U	4.23 U	0.988 U	0.877 U	0.92 U	2.68 U	1.06 U	0.875 U	0.872 U	2.83 U
OCDD	17 U	2.65 UJ	2.72 UJ	16.9 U	16.7 U	11.4 J	5.2 U	109 U	59.8 J	17.8 U	6.45 U	12.4 UJ	16.9 U	16.8 U	7.19 U
OCDF	2.13 U	2.77 U	1.35 U	2.12 U	2.09 U	7.27 U	8.1 U	1.18 U	8.02 U	2.23 U	10.5 U	7.01 U	2.12 U	2.11 U	10.1 U
Dioxin/Furan TEQ[a][2]	1.99 UT	0.93 JT	0.417 UJT	3.49 UT	1.96 UT	2.16 JT	3.08 UT	1.15 UT	2 JT	2.08 UT	2.31 UT	1.82 UJT	1.98 UT	1.97 UT	2.23 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-22-75	RP-22-75	RP-23-100	RP-23-100	RP-23-100	RP-23-100	RP-23-100	RP-23-125	RP-23-125	RP-23-125	RP-23-125	RP-23-125	RP-23-125	RP-23-125	RP-23-30
Sample_Date:	5/16/2019	8/13/2019	11/9/2006	4/23/2019	5/10/2007	9/13/2017	9/13/2017	11/10/2006	4/22/2019	5/11/2007	5/29/2009	9/13/2017	9/13/2017	9/13/2017	11/8/2006
Collection Depth (ft bgs):	-	65-75	95-100	95-100	95-100	95-100	95-100	120-125	120-125	120-125	120-125	120-125	120-125	120-125	15-30
Sample Type	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	4.82 U	3.29 U	3.11 U	4.65 U	2.93 U	2.74 U	1.24 U	4.45 U	3.39 U	3.04 U	6.2 U	2.66 U	2.7 U	1.07 U	9.74 U
1,2,3,4,6,7,8-HpCDF	2.29 U	1.27 U	3.1 U	1.83 U	2.92 U	0.93 U	0.675 U	3.52 J	1.74 U	14.5 U	2.42 U	0.941 U	0.772 U	0.984 U	3 J
1,2,3,4,7,8,9-HpCDF	3.58 U	2.19 U	3.32 U	2.85 U	3.13 U	1.54 U	0.671 U	3.05 U	3 U	3.24 U	2.03 U	1.38 U	1.15 U	0.978 U	3.11 U
1,2,3,4,7,8-HxCDD	2.87 U	1.57 U	2.62 U	1.87 U	2.48 U	1.46 U	0.902 U	4.77 U	1.74 U	2.57 U	4.84 U	1.18 U	1.55 U	1.17 U	2.46 U
1,2,3,4,7,8-HxCDF	1.76 U	1.31 U	1.09 U	1.41 U	1.03 U	0.791 U	1.22 U	5.43 U	1.29 U	5.97 U	5.02 U	0.833 U	0.803 U	0.961 U	2.02 U
1,2,3,6,7,8-HxCDD	2.6 U	1.47 U	1.57 U	1.72 U	1.49 U	1.45 U	0.952 U	1.45 U	1.6 U	1.54 U	3.5 U	1.13 U	1.54 U	1.23 U	1.48 U
1,2,3,6,7,8-HxCDF	1.55 U	1.33 U	1.47 U	1.4 U	1.34 U	0.88 U	1.26 U	5.13 U	1.26 U	2 U	4.95 U	0.888 U	0.807 U	0.995 U	1.33 U
1,2,3,7,8,9-HxCDD	2.73 U	1.54 U	1.72 U	1.82 U	1.62 U	1.49 U	0.876 U	3.98 U	1.7 U	1.68 U	3.27 U	1.18 U	1.58 U	1.13 U	1.61 U
1,2,3,7,8,9-HxCDF	2.81 U	2.07 U	2.69 U	2.39 U	2.54 U	1.11 U	1.25 U	4.97 U	2.11 U	2.63 U	4.26 U	1.23 U	1.07 U	0.987 U	2.53 U
1,2,3,7,8-PeCDD	2.47 U	1.48 U	2.09 U	1.38 U	1.97 U	1.5 U	1.27 U	7.28 U	1.5 U	2.66 U	2.62 U	1.46 U	1.84 U	1.22 U	1.96 U
1,2,3,7,8-PeCDF	1.7 U	1.35 U	3.06 U	1.04 U	2.58 U	1.04 U	1.18 U	7.99 U	1.19 U	7.17 U	3.08 U	1.58 U	1.17 U	0.862 U	2.56 U
2,3,4,6,7,8-HxCDF	1.7 U	1.35 U	2.13 U	1.56 U	2.01 U	0.843 U	1.18 U	4.14 U	1.39 U	2.08 U	6.14 U	0.944 U	0.906 U	0.928 U	2 U
2,3,4,7,8-PeCDF	1.46 U	1.22 U	2.55 U	0.935 U	2.17 U	0.9 U	1.15 U	6.84 U	1.05 U	6.27 U	3.64 U	1.29 U	1.05 U	0.841 U	2.15 U
2,3,7,8-TCDD	2.18 U	1.21 U	0.954 U	1.92 U	0.9 U	2.66 U	1.26 U	3.84 J	2.01 U	0.933 U	0.875 UJ	2.34 U	2.13 U	1.23 U	0.895 U
2,3,7,8-TCDF	3.06 U	1.24 U	0.925 U	3.76 U	0.873 U	2.6 U	1.1 U	0.853 U	3.29 U	0.905 U	1.56 U	2.73 U	2.82 U	1.15 U	0.868 U
OCDD	7.15 U	6.12 U	17.8 U	7.48 U	16.8 U	3.26 U	0.946 U	16.4 U	8.09 U	17.5 U	6.72 U	3.43 U	3.16 U	0.994 U	87 J
OCDF	12.6 U	7.01 U	2.24 U	8.19 U	2.11 U	5.74 U	1.14 U	4.23 U	7.34 U	28 U	5.54 U	8.16 U	5 U	1.05 U	5.14 U
Dioxin/Furan TEQ[a][2]	2.47 UT	1.48 UT	2.09 UT	1.92 UT	1.97 UT	2.66 UT	1.27 UT	11.2 JT	2.01 UT	2.66 UT	2.62 UJT	2.34 UT	2.13 UT	1.23 UT	2.02 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-23-30	RP-23-30	RP-23-30	RP-23-85	RP-23-85	RP-23-85	RP-23-85	RP-24-172	RP-24-172	RP-24-172	RP-24-172	RP-24-30	RP-24-30	RP-24-30	RP-24-30
Sample_Date:	5/11/2007	5/28/2019	8/14/2019	11/9/2006	5/11/2007	5/9/2019	8/14/2019	4/26/2019	6/30/2009	6/30/2009	9/13/2017	11/20/2006	12/12/2017	5/21/2007	6/3/2019
Collection Depth (ft bgs):	15-30	15-30	15-30	80-85	80-85	80-85	80-85	156-176	156-176	156-176	156-176	25-30	25-30	25-30	25-30
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.96 U	1.97 U	1.65 U	3.93 U	3.04 U	2.63 U	2.88 UJ	4.35 U	6.35 U	6.2 U	2.36 U	940	60.1	2.97 U	2.11 U
1,2,3,4,6,7,8-HpCDF	16.7 U	1.06 U	1.06 J	3.03 U	12.9 U	1.28 U	1.28 U	2.04 U	2.48 U	2.42 U	1.27 U	346 J	16.1 J	3.94 J	0.948 U
1,2,3,4,7,8,9-HpCDF	3.16 U	1.54 U	1.21 U	3.25 U	3.24 U	1.79 U	1.87 U	3.55 U	2.08 U	2.03 U	1.97 U	31.2 J	4.2 U	3.17 U	1.39 U
1,2,3,4,7,8-HxCDD	2.5 U	1.43 U	1.14 U	6.5 U	2.57 U	1.65 U	1.09 U	2.67 U	4.96 U	4.84 U	1.26 U	4.8 J	1.8 U	2.51 U	1.17 U
1,2,3,4,7,8-HxCDF	1.04 U	1.01 U	0.733 U	5.43 U	1.07 U	0.965 U	0.61 U	1.26 U	5.15 U	5.03 U	1.07 U	82.5	4.29 J	1.67 J	0.809 U
1,2,3,6,7,8-HxCDD	1.5 U	1.33 U	1.13 U	5.22 U	1.54 U	1.57 U	1.07 U	2.39 U	3.59 U	3.5 U	1.16 U	35.4 J	2.38 UJK	1.51 U	1.16 U
1,2,3,6,7,8-HxCDF	2.9 U	0.936 U	0.749 U	5.39 U	1.39 U	0.975 U	0.602 U	1.18 U	5.08 U	4.96 U	1.05 U	26.4 J	1.97 UJK	1.36 U	0.795 U
1,2,3,7,8,9-HxCDD	1.63 U	1.39 U	1.16 U	2.56 U	1.68 U	1.62 U	1.1 U	2.57 U	3.35 U	3.27 U	1.23 U	12 J	1.8 U	1.64 U	1.17 U
1,2,3,7,8,9-HxCDF	2.56 U	1.32 U	1.03 U	2.64 U	2.63 U	1.35 U	0.858 U	1.96 U	4.37 U	4.27 U	1.46 U	10.9 J	1.49 U	2.58 U	1.17 U
1,2,3,7,8-PeCDD	1.99 U	1.24 U	1.12 U	8.89 U	2.05 U	1.23 U	0.821 U	1.87 U	2.68 U	2.62 U	1.4 U	1.92 U	1.28 U	2 U	1.29 U
1,2,3,7,8-PeCDF	10.6 U	0.739 U	0.695 U	10.6 U	2.67 U	0.983 U	0.715 U	1.07 U	3.16 U	3.08 U	1.19 U	24.4 J	1.48 U	2.61 U	0.652 U
2,3,4,6,7,8-HxCDF	2.03 U	1.02 U	0.762 U	2.39 U	2.08 U	0.986 U	0.635 U	1.3 U	6.3 U	6.15 U	1.09 U	16.3 J	1.16 U	2.04 U	0.825 U
2,3,4,7,8-PeCDF	7.82 U	0.662 U	0.631 U	7.94 U	2.24 U	0.856 U	0.621 U	0.988 U	3.73 U	3.64 U	1.08 U	20.5 J	1.34 U	2.19 U	0.61 U
2,3,7,8-TCDD	0.908 U	1.22 U	0.93 U	6.95 J	0.933 U	1.01 U	0.8 U	1.7 U	0.897 U	0.876 U	2.15 U	0.874 U	1.54 UJK	0.912 U	1.23 U
2,3,7,8-TCDF	0.881 U	1.79 U	1.14 U	9.93	0.905 U	1.22 U	1.04 U	1.99 U	1.6 U	1.57 U	2.27 U	14.3	2.12 U	0.885 U	1.45 U
OCDD	28.1 J	9.16 J	7.74 UJ	17.5 U	17.5 U	12.8 UJ	37.6 J	9.18 U	6.89 U	6.72 U	5.16 U	9720 J	796	25.1 J	7.55 UJ
OCDF	19.3 U	3.88 U	2.95 U	2.24 U	21.5 U	3 U	2.86 U	8.96 U	5.68 U	5.54 U	4.99 U	1130 J	63.7 J	2.14 U	4.73 U
Dioxin/Furan TEQ[a][2]	2.35 JT	1.24 JT	1.13 JT	16.8 JT	2.05 UT	1.23 UJT	0.832 JT	1.87 UT	2.68 UT	2.62 UT	2.15 UT	45.5 JT	2.99 JT	2.21 JT	1.29 UJT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-24-30	RP-24-60	RP-24-60	RP-24-60	RP-24-60	RP-24-60	RP-24-73	RP-24-73	RP-24-73	RP-24-73	RP-24-73	RP-24-73	RP-24-73	RP-24-73	RP-24-73
Sample_Date:	9/6/2007	11/20/2006	5/21/2007	6/4/2019	9/12/2017	9/7/2007	11/21/2006	12/11/2017	3/19/2018	3/19/2018	5/21/2007	6/1/2009	6/11/2018	9/13/2017	9/13/2017
Collection Depth (ft bgs):	25-30	55-60	55-60	55-60	55-60	55-60	68-73	68-73	68-73	68-73	68-73	68-73	68-73	68-73	68-73
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	54.9	2.83 U	3.03 U	1.32 U	2.48 U	2.92 U	3.61 J	1.06 U	0.488 U	1.03 U	3.01 U	6.46 U	1.34 U	2.51 U	0.899 U
1,2,3,4,6,7,8-HpCDF	14.2 U	2.82 U	3.02 U	0.794 U	0.77 U	2.91 U	2.72 U	0.999 U	0.353 U	1.25 U	3 U	2.52 U	1.1 U	0.815 U	0.945 U
1,2,3,4,7,8,9-HpCDF	3.3 U	3.02 U	3.24 U	1.31 U	1.26 U	3.11 U	2.92 U	0.989 U	0.512 U	1.24 U	3.21 U	2.12 U	1.12 U	1.38 U	0.939 U
1,2,3,4,7,8-HxCDD	2.62 U	2.39 U	2.56 U	0.908 U	0.973 U	2.46 U	2.31 U	1.04 U	0.59 U	0.949 U	2.54 U	5.04 U	1.05 U	1.25 U	0.949 U
1,2,3,4,7,8-HxCDF	1.09 U	0.993 U	1.06 U	0.565 U	0.766 U	1.02 U	0.96 U	1.07 U	0.588 UJK	1.22 U	1.06 U	5.23 U	0.947 U	1.01 U	1 U
1,2,3,6,7,8-HxCDD	1.57 U	1.43 U	1.54 U	0.855 U	0.967 U	1.48 U	1.38 U	1.06 U	0.57 U	1.01 U	1.52 U	3.65 U	1.06 U	1.17 U	1 U
1,2,3,6,7,8-HxCDF	1.41 U	1.29 U	1.38 U	0.574 U	0.81 U	1.33 U	1.25 U	1.08 U	0.392 UJ	1.29 U	1.37 U	5.16 U	1 U	1.01 U	1.03 U
1,2,3,7,8,9-HxCDD	1.71 U	1.56 U	1.68 U	0.887 U	0.994 U	1.61 U	1.51 U	1.03 U	0.596 U	0.978 U	1.66 U	3.41 U	1.11 U	1.24 U	0.922 U
1,2,3,7,8,9-HxCDF	2.68 U	2.45 U	2.63 U	0.846 UJ	1.19 U	2.53 U	2.37 U	1.01 UJ	0.921 UJ	1.27 U	2.61 U	4.44 U	0.997 U	1.4 U	1.03 U
1,2,3,7,8-PeCDD	2.08 U	1.9 U	2.04 U	0.794 U	1.05 U	1.96 U	1.84 U	1.12 U	0.361 U	1.45 U	2.02 U	2.73 U	1.05 U	1.35 U	0.829 U
1,2,3,7,8-PeCDF	2.72 U	2.49 U	2.67 U	0.524 U	1.03 U	2.57 U	2.4 U	1.13 U	0.627 UJ	1.4 U	2.65 U	3.21 U	0.859 U	1.3 U	0.919 U
2,3,4,6,7,8-HxCDF	2.13 U	1.94 U	2.08 U	0.595 UJ	0.847 U	2 U	1.88 U	0.998 U	0.355 U	1.2 U	2.06 U	6.4 U	0.926 U	1.16 U	0.965 U
2,3,4,7,8-PeCDF	2.29 U	2.09 U	2.24 U	0.471 U	0.878 U	2.15 U	2.02 U	1.12 U	0.314 UJ	1.35 U	2.22 U	3.79 U	0.759 U	1.17 U	0.897 U
2,3,7,8-TCDD	0.951 UJ	0.868 U	0.931 U	0.501 U	1.42 U	0.896 U	0.839 U	0.977 U	0.586 U	1.36 U	0.923 U	0.912 U	1.04 U	2.68 U	0.996 U
2,3,7,8-TCDF	0.922 U	0.842 U	0.903 U	0.565 U	2.3 U	0.869 U	0.814 U	1.02 U	0.376 U	1.16 U	0.895 U	1.63 U	0.846 U	2.09 U	0.888 U
OCDD	645 J	16.2 U	17.4 U	3.02 U	3.05 U	16.8 U	19.1 J	94.3 U	1.53 UJ	1.24 U	17.3 U	7 U	1.76	4.22 U	1.19 U
OCDF	39.4 J	2.04 U	2.18 U	4 U	3.73 U	2.1 U	3.8 J	94.3 U	0.792 U	1.08 U	2.16 U	5.77 U	1.62 U	4.22 U	0.916 U
Dioxin/Furan TEQ[a][2]	2.83 JT	1.9 UT	2.04 UT	0.794 UJT	1.42 UT	1.96 UT	1.88 JT	1.12 UJT	0.586 UJT	1.45 UT	2.02 UT	2.73 UT	1.05 T	2.68 UT	0.996 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-24-73	RP-24-85	RP-24-85	RP-24-85	RP-24-85	RP-24-85	RP-24-85	RP-24-85	RP-24-85	RP-25-113	RP-25-113	RP-25-113	RP-25-113	RP-25-30	RP-25-30
Sample_Date:	9/7/2007	11/21/2006	11/21/2006	3/19/2018	5/21/2007	6/1/2009	9/13/2017	9/13/2017	9/7/2007	4/24/2019	6/30/2009	9/14/2017	9/14/2017	5/15/2019	6/30/2009
Collection Depth (ft bgs):	68-73	80-85	80-85	80-85	80-85	80-85	80-85	80-85	80-85	116-121	116-121	116-121	116-121	10-30	10-30
Sample Type	N-P	N-P	FD	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	2.9 U	2.72 U	5.05 J	0.693 U	2.94 U	6.48 U	2.08 U	1.22 U	3.08 U	4.54 U	6.46 U	2.96 U	0.882 U	3.35 U	6.18 U
1,2,3,4,6,7,8-HpCDF	2.89 U	2.71 U	2.87 U	0.453 U	2.94 U	2.53 U	0.738 U	0.734 U	3.07 U	1.94 U	2.52 U	1.38 U	1.11 U	1.64 U	2.41 U
1,2,3,4,7,8,9-HpCDF	3.09 U	2.9 U	3.07 U	0.602 U	3.14 U	2.13 U	1.16 U	0.729 U	3.29 U	3.21 U	2.12 U	2.4 U	1.1 U	2.48 U	2.03 U
1,2,3,4,7,8-HxCDD	2.45 U	2.3 U	2.43 U	0.602 U	2.49 U	5.06 U	1.49 U	0.983 U	2.6 U	2.24 U	5.04 U	2.26 U	1.12 U	2.09 U	4.83 U
1,2,3,4,7,8-HxCDF	1.02 U	0.956 U	1.01 U	0.362 U	1.03 U	5.26 U	1.05 U	0.941 U	1.08 U	1.32 U	5.23 U	1.57 U	1.16 U	0.673 U	5.01 U
1,2,3,6,7,8-HxCDD	1.47 U	1.38 U	1.46 U	0.573 U	1.49 U	3.66 U	1.45 U	1.04 U	1.56 U	2.06 U	3.65 U	2.14 U	1.18 U	2 U	3.49 U
1,2,3,6,7,8-HxCDF	1.32 U	1.24 U	1.31 U	0.378 U	1.34 U	5.19 U	1.08 U	0.973 U	1.41 U	1.31 U	5.16 U	1.49 U	1.2 U	0.671 UJ	4.94 U
1,2,3,7,8,9-HxCDD	1.6 U	1.5 U	1.59 U	0.604 U	1.63 U	3.42 U	1.51 U	0.955 U	1.7 U	2.18 U	3.41 U	2.24 U	1.09 U	2.06 U	3.26 U
1,2,3,7,8,9-HxCDF	2.51 U	2.36 U	2.49 U	0.826 UJ	2.55 U	4.46 U	1.42 U	0.966 U	2.67 U	2.2 U	4.44 U	2.07 U	1.19 U	1.43 U	4.25 U
1,2,3,7,8-PeCDD	1.95 U	1.83 U	1.94 U	0.472 U	1.98 U	2.74 U	1.09 U	1.1 U	2.08 U	1.75 U	2.73 U	1.79 U	1.05 U	1.05 U	2.61 U
1,2,3,7,8-PeCDF	2.55 U	2.4 U	2.53 U	0.531 UJ	2.59 U	3.22 UJ	0.803 U	0.89 U	2.71 U	1.26 U	3.21 U	1.72 U	1.04 U	0.642 U	3.07 U
2,3,4,6,7,8-HxCDF	1.99 U	1.87 U	1.97 U	0.378 U	2.02 U	6.43 U	1.03 U	0.908 U	2.12 U	1.5 U	6.4 U	1.56 U	1.12 U	1.02 U	6.13 U
2,3,4,7,8-PeCDF	2.14 U	2.01 U	2.12 U	0.264 U	2.37 J	3.81 U	0.726 U	0.868 U	2.28 U	1.13 U	3.79 U	1.61 U	1.01 U	0.544 U	3.63 U
2,3,7,8-TCDD	0.89 U	0.836 U	0.883 U	0.789 U	0.904 U	0.916 U	2.22 U	1.16 U	22.4	1.69 U	0.912 U	2.3 U	1.17 U	0.708 U	0.873 U
2,3,7,8-TCDF	0.864 U	0.811 U	0.857 U	0.543 U	0.877 U	1.64 U	1.84 U	1.26 U	0.918 U	1.95 U	1.63 U	3.7 U	0.801 U	0.809 U	1.56 U
OCDD	16.7 U	37 J	34.9 J	1.3 UJ	16.9 U	7.03 U	3.77 U	0.974 U	21.9 J	8.05 U	7 U	5.67 U	110 U	4.03 U	6.7 U
OCDF	2.09 U	7.15 J	6.07 J	0.939 U	2.12 U	5.8 U	3.45 U	1.12 U	2.22 U	7.55 U	5.77 U	6.3 U	1 U	5.39 U	5.53 U
Dioxin/Furan TEQ[a][2]	1.95 UT	1.84 JT	2 JT	0.789 UJT	2.69 JT	2.74 UJT	2.22 UT	1.16 UT	24.5 JT	1.75 UT	2.73 UT	2.3 UT	1.17 UT	1.05 UJT	2.61 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	RP-25-30	RP-25-86	RP-25-86	RP-25-86	SIL-03	SIL-03	SIL-03	SIL-04	SIL-04	SIL-04	WS-48-76	WS-48-76	WS-48-76	WS-49-107	WS-49-107
Sample_Date:	8/15/2019	6/3/2019	6/30/2009	8/15/2019	11/16/2005	11/16/2005	12/6/2005	11/16/2005	11/21/2005	12/9/2005	4/19/2019	8/8/2019	8/8/2019	4/17/2019	8/9/2019
Collection Depth (ft bgs):	10-30	75.5-85.5	75.5-85.5	75.5-85.5	31-35	95-99	110-130	26-30	70-74	80-89	65-75	65-75	65-75	86-106	86-106
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	FD	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.19 U	2.44 U	6.03 U	1.91 UJ	1.56 J	105	7.01 J	582	19.3 J	1.35 U	2.89 U	2.88 U	5.44 U	2.95 U	2.1 U
1,2,3,4,6,7,8-HpCDF	0.601 U	1.01 U	2.35 U	0.91 U	0.586 U	3.9 J	1.51 J	169	4.19 J	1.49 U	1.99 U	3.96 U	2.41 U	1.41 U	1.02 U
1,2,3,4,7,8,9-HpCDF	0.9 U	1.61 U	1.98 U	1.33 U	1.01 U	0.78 J	0.938 U	16.8 J	0.7 J	1.01 U	3.01 U	6.06 U	3.72 U	1.95 U	1.69 U
1,2,3,4,7,8-HxCDD	0.759 U	1.44 U	4.71 U	0.949 U	0.857 U	2.33 U	0.857 U	3.82 J	0.865 U	0.857 U	2.25 U	1.98 U	3.59 U	1.77 U	1.69 U
1,2,3,4,7,8-HxCDF	0.484 U	0.905 U	4.89 U	0.706 U	0.554 J	3.22 J	0.751 J	45.1 J	1.34 J	1.41 U	1.18 U	1.33 U	2.06 U	1.18 U	0.866 U
1,2,3,6,7,8-HxCDD	0.749 U	1.45 U	3.41 U	0.897 U	1.7 U	5.48 J	0.698 J	22.6 J	0.95 J	1.7 U	2.01 U	1.79 U	3.33 U	1.7 U	1.57 U
1,2,3,6,7,8-HxCDF	0.497 U	0.914 U	4.82 U	0.726 U	1.31 U	1.36 U	1.31 U	15.3 J	0.596 U	1.31 U	1.17 U	1.32 U	2.17 U	1.22 U	0.9 U
1,2,3,7,8,9-HxCDD	0.771 U	1.46 U	3.18 U	0.942 U	1.96 U	13.3 J	0.632 U	11.1 J	1.1 U	1.96 U	2.17 U	1.9 U	3.5 U	1.78 U	1.65 U
1,2,3,7,8,9-HxCDF	0.678 U	1.35 U	4.15 U	0.981 U	1.05 U	1.05 U	1.05 U	1.19 U	1.06 U	1.05 U	1.68 U	1.91 U	3.18 U	1.62 U	1.37 U
1,2,3,7,8-PeCDD	0.672 U	1.33 U	2.55 U	0.94 U	0.761 U	2.4 U	0.761 U	2.78 U	0.769 U	0.761 U	1.28 U	1.89 U	2.71 U	1.33 U	1.34 U
1,2,3,7,8-PeCDF	0.428 U	0.862 U	3 U	1.23 UJ	0.5 J	1.34 J	0.789 U	17.3 J	0.909 U	1.38 U	1.23 J	1.25 U	2.19 U	1.01 U	0.949 U
2,3,4,6,7,8-HxCDF	0.511 U	0.926 U	5.98 U	0.726 U	1.27 U	0.551 U	1.27 U	4.57 J	1.28 U	1.27 U	1.25 U	1.34 U	2.26 U	1.26 U	0.858 U
2,3,4,7,8-PeCDF	0.383 U	0.757 U	3.54 U	0.63 U	0.584 U	0.843 U	0.832 U	10.5 J	0.575 J	1.3 U	0.966 U	1.16 U	2.07 U	0.914 U	0.848 U
2,3,7,8-TCDD	0.686 U	1.33 U	0.852 U	0.906 U	0.544 U	5.55 J	0.63 U	2.08 U	0.78 U	0.457 U	1.47 U	1.19 U	2.26 U	1.72 U	0.799 U
2,3,7,8-TCDF	0.955 U	1.56 U	1.52 U	1.23 U	0.428 U	0.428 U	0.676 U	14.4	0.432 U	0.428 U	2.25 U	1.32 U	2.15 U	2.42 U	0.881 U
OCDD	1.81 U	4.3 UJ	6.54 U	2.56 U	9.31 U	836	75.1 J	7430	222	6 J	4.48 U	5.02 U	7.42 U	8.44 UJK	3.13 U
OCDF	2.24 U	5.31 U	5.39 U	3.18 U	0.805 U	4.56 U	3.41 U	451	9.55 J	0.578 U	3.72 U	7.35 U	12.6 U	3.67 U	4.96 U
Dioxin/Furan TEQ[a][2]	0.686 UT	1.33 UJT	2.55 UT	0.94 UJT	0.847 JT	11.5 JT	1.01 JT	28.2 JT	1.49 JT	0.763 JT	1.51 JT	1.89 UT	2.71 UT	1.72 UJT	1.34 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU														
Location:	WS-49-37	WS-49-37	WS-49-76	WS-49-76	WS-50-32	WS-50-86	WS-50-86	WS-51-64	WS-51-64	WS-52-55	WS-52-55	WS-52-94	WS-52-94	WS-53-144	WS-53-144
Sample_Date:	5/13/2019	8/5/2019	5/13/2019	8/5/2019	8/22/2019	5/7/2019	8/7/2019	5/20/2019	8/29/2019	5/21/2019	9/3/2019	4/18/2019	8/27/2019	4/16/2019	8/23/2019
Collection Depth (ft bgs):	27-37	27-37	65-75	65-75	21.5-31.5	75-85	75-85	53-63	53-63	34-54	34-54	83-93	83-93	133-143	133-143
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)															
1,2,3,4,6,7,8-HpCDD	1.54 U	1.89 U	2.08 U	2.42 U	1.12 U	2.87 U	2.15 U	4.43 U	1.9 U	4.6 U	1.39 U	2.78 U	0.808 U	3.16 U	1.47 U
1,2,3,4,6,7,8-HpCDF	0.833 U	0.868 U	1.02 U	1.03 U	0.431 U	1.17 U	1.02 U	2 U	0.953 U	1.83 U	0.727 U	1.25 U	0.416 U	1.53 U	0.626 U
1,2,3,4,7,8,9-HpCDF	1.18 U	1.38 U	1.51 U	1.62 U	0.687 U	1.68 U	1.53 U	3.29 U	1.28 U	3.07 U	1.03 U	1.81 U	0.656 U	2.32 U	0.996 U
1,2,3,4,7,8-HxCDD	0.887 U	1.2 U	1.31 U	1.39 U	0.685 U	1.88 U	1.34 U	2.35 U	1.25 U	2.02 U	0.787 U	1.79 U	0.433 U	1.74 U	0.814 U
1,2,3,4,7,8-HxCDF	0.461 U	0.764 U	0.885 U	0.796 U	0.419 U	1.22 U	0.703 U	1.79 U	0.744 U	1.55 U	0.63 U	0.999 U	0.355 U	1.2 U	0.487 U
1,2,3,6,7,8-HxCDD	0.871 U	1.19 U	1.26 U	1.34 U	0.634 U	1.71 U	1.3 U	2.08 U	1.26 U	1.77 U	0.735 U	1.76 U	0.416 U	1.66 U	0.798 U
1,2,3,6,7,8-HxCDF	0.463 U	0.706 U	0.889 U	0.798 U	0.423 U	1.21 U	0.721 U	1.64 U	0.799 U	1.47 U	0.656 U	1.04 U	0.367 U	1.23 U	0.496 U
1,2,3,7,8,9-HxCDD	0.887 U	1.22 U	1.29 U	1.39 U	0.67 U	1.8 U	1.35 U	2.21 U	1.28 U	1.88 U	0.779 U	1.82 U	0.433 U	1.74 U	0.823 U
1,2,3,7,8,9-HxCDF	0.658 U	1.18 U	1.21 U	1.19 U	0.666 UJ	1.75 U	1.11 U	2.72 U	1.09 U	2.36 U	0.88 U	1.43 U	0.676 UJ	1.71 U	0.785 U
1,2,3,7,8-PeCDD	0.804 U	0.874 U	1.03 U	1.06 U	0.589 U	1.36 U	1.08 U	2.1 U	1.01 U	2.15 U	0.693 U	1.43 U	0.551 U	1.35 U	0.798 U
1,2,3,7,8-PeCDF	0.57 U	0.646 U	0.766 U	0.771 U	0.419 U	1.07 U	0.797 U	1.58 U	0.714 U	1.38 U	0.604 U	1.35 U	0.418 U	1.15 U	0.48 U
2,3,4,6,7,8-HxCDF	0.49 U	0.774 U	0.868 U	0.834 U	0.454 U	1.27 U	0.745 U	1.68 U	0.822 U	1.64 U	0.66 U	1.08 U	0.363 U	1.29 U	0.518 U
2,3,4,7,8-PeCDF	0.5 U	0.573 U	0.657 U	0.679 U	0.38 U	0.969 U	0.719 U	1.35 U	0.613 U	1.13 U	0.537 U	1.19 U	0.375 U	1 U	0.426 U
2,3,7,8-TCDD	0.648 U	1.02 U	0.902 U	1.07 U	0.536 U	1.18 U	1.1 U	2.21 U	1.21 U	1.76 U	0.864 U	1.78 U	0.404 U	1.82 U	0.556 U
2,3,7,8-TCDF	0.698 U	1.45 U	1.11 U	1.53 U	0.64 U	1.5 U	1.22 U	2.92 U	1.62 U	2.19 U	1.18 U	2.09 U	0.512 U	2.47 U	0.841 U
OCDD	5 UJ	7.41 J	33.7 J	12.8 J	2.17 U	4.5 J	7.4 J	7.23 U	4.08 J	41.8 J	2.01 U	3.86 U	1.74 U	4.54 U	3.05 U
OCDF	1.94 U	3.99 U	2.71 U	4.93 U	2.84 U	4.72 U	4.03 U	12.4 U	3.28 U	8.88 U	2.42 U	4.62 U	1.79 U	4.28 U	3.05 U
Dioxin/Furan TEQ[a][2]	0.804 UJT	1.02 JT	1.04 JT	1.07 JT	0.589 UJT	1.36 JT	1.1 JT	2.21 UT	1.21 JT	2.16 JT	0.864 UT	1.78 UT	0.551 UJT	1.82 UT	0.798 UT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Property[1]:	SOU					
Location:	WS-53-73	WS-53-73	WS-6-24	WS-6-24	WS-7-25	WS-7-25
Sample_Date:	5/22/2019	8/28/2019	5/17/2019	8/7/2019	5/20/2019	8/6/2019
Collection Depth (ft bgs):	62-72	62-72	9-24	9-24	10-25	10-25
Sample Type	N-P	N-P	N-P	N-P	N-P	N-P
Dioxins/Furans (pg/L)						
1,2,3,4,6,7,8-HpCDD	4.05 U	2.08 U	3.7 U	2.04 U	2.81 U	2.03 U
1,2,3,4,6,7,8-HpCDF	1.8 U	1.06 U	1.53 U	0.86 U	1.45 U	0.96 U
1,2,3,4,7,8,9-HpCDF	2.87 U	1.48 U	2.54 U	1.31 U	2.52 U	1.49 U
1,2,3,4,7,8-HxCDD	2.15 U	1.24 U	1.96 U	1.16 U	1.71 U	1.26 U
1,2,3,4,7,8-HxCDF	1.56 U	1.04 U	1.36 U	0.65 U	1.19 U	0.69 U
1,2,3,6,7,8-HxCDD	1.79 U	1.28 U	1.69 U	1.06 U	1.52 U	1.17 U
1,2,3,6,7,8-HxCDF	1.45 U	1.12 U	1.3 U	0.634 U	1.14 U	0.701 U
1,2,3,7,8,9-HxCDD	1.95 U	1.29 U	1.81 U	1.13 U	1.61 U	1.24 U
1,2,3,7,8,9-HxCDF	2.43 U	1.45 U	2.17 U	0.955 U	1.73 U	1.04 U
1,2,3,7,8-PeCDD	1.89 U	1.27 U	1.94 U	1.03 U	1.52 U	0.956 U
1,2,3,7,8-PeCDF	1.36 U	0.812 U	1.3 U	0.715 U	1.19 U	0.676 U
2,3,4,6,7,8-HxCDF	1.6 U	1.1 U	1.48 U	0.675 U	1.22 U	0.699 U
2,3,4,7,8-PeCDF	1.16 U	0.741 U	1.01 U	0.648 U	0.996 U	0.64 U
2,3,7,8-TCDD	1.61 U	1.32 U	1.41 U	0.952 U	1.57 U	0.973 U
2,3,7,8-TCDF	2.23 U	1.75 U	2 U	1.19 U	2.23 U	1.33 U
OCDD	13.4 J	5.94 J	5.31 U	11.6 J	4.42 U	12.5 J
OCDF	8.16 U	3.85 U	8.53 U	3.97 U	7.3 U	3.87 U
Dioxin/Furan TEQ[(a)(2)]	1.89 JT	1.32 JT	1.94 UT	1.03 JT	1.57 UT	0.977 JT

Table 3
Summary of Groundwater Dioxin/Furan Analytical Results
MGP Dioxin/Furan Evaluation

Notes

-- = no data or not analyzed.
AT = TEQ calculated with incomplete set of dioxin and furan congener results.
FD = field duplicate sample.
J = result is estimated.
JT = result is estimated and calculated.
K = result is an estimated maximum potential concentration.
MGP - manufactured gas plant.
N-P = field sample or parent field sample.
NJ = result is presumptively identified and an estimated value.
pg/L = picograms per liter.
R = resullt is rejected.
T = result is calculated.
TEF = toxic equivalence factor.
TEQ = toxicity equivalence.
U = result is non-detect at the estimated detection limit or method reporting limit.
UJ = result is non-detect with an estimated detection limit.
UJK = result is non-detect, estimated, and with an estimated detection limit.
UJT= result is non-detect, with an estimated detection limit, and calculated.
UK = result is non-detect and an estimated maximum potential concentration.
UT = result is non-detect and calculated.
[a]Dioxin/furan TEQs are calculated as the sum of each congener concentration multiplied by the corresponding TEF value. Non-detect congeners are also multiplied by one-half. When all of the congeners are non-detect in a given sample, the reported TEQ value is the highest product resulting from multiplying each congener detection limit by the corresponding TEF value.

References

[1]Sample information and results obtained from the following documents:

AMEC. 2010. *RI/SCE Report, RP - Portland Site, Portland, Oregon.* AMEC Earth & Environmental, Inc. November 19.

Anchor. 2019. Jen Mott, Anchor QEA, LLC. *Gasco: Groundwater Quality Database September/October 2018.* Email to Dana Bayuk, Oregon Department of Environmental Quality. February 8.

Golder. 2018. *Feasibility Study Data Gaps Report, Former Rhone-Poulenc Site, Portland, Oregon.* Golder Associates, Inc. December.

MFA. 2023. *Siltronic Operable Unit Remedial Investigation Data Summary Report.* Maul Foster Alongi, Inc. March 31.

Siltronic's monthly progress reports, prepared under the 2000 Joint Order. Samples collected between 2016 and 2019 by Maul Foster Alongi, Inc.

[2]Van den Berg, M. et al. 1998. "Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife." Environmental Health Perspectives. 106 (12):775–792.

Appendix A

Hall. E. L. 1941. “Aromatics, Gas and Coke from Heavy Petroleum Residues.” *Chemical & Metallurgical Engineering.* Volume 48, no. 9 (September): 100–105.

MAUL FOSTER ALONGI

Aromatics, Gas and Coke From Heavy Petroleum

E. L. HALL *Vice-President and Chief Engineer, Portland Gas & Coke Co., Portland, Ore.*

Chem. & Met. INTERPRETATION

Petroleum refineries are rarely well situated for the manufacture of aromatic chemicals by the cracking of heavy petroleum residues, since optimum cracking conditions yield large quantities of gas, tar and coke as well. On this account the author's company feels that a gas utility, being set up for gas making and marketing, is a logical place for such production. Portland Gas & Coke Co. has been a pioneer in this development and has experimented extensively with a variety of residuum cracking processes, one of which has been chosen for use in a $1,250,000 plant now under construction. Still another factor favoring this course is a rapidly expanding market for electrode pitch and coke in the Pacific Northwest.— *Editors.*

PRODUCTION of aromatics from petroleum is by no means a new art. As early as 1880 the Russians were familiar with the principles, and the working up of petroleum residues was even carried on industrially. However the processes then in use were crude and the operations of doubtful economic value. In more recent years, the carburetion of water-gas with gas oil, and later with heavy oil, has become a well-known source of aromatics.

There is an extensive literature dealing with the cracking of petroleum with the primary object of producing aromatics. The most notable investigation was that of W. F. Rittman who processed a light grade of petroleum in tubular apparatus (U. S. Bur. Mines Bul. 114). This operation was prompted by the World War shortage of toluol and was discontinued at the expiration of the emergency.

It is surprising, after such a long development period, during which time the chemical principles were thoroughly investigated, that the production of aromatics did not become more firmly established. Doubtless, the plentiful supplies of benzol and toluol from coal gas plants had much to do with this, which would seem to indicate that the manufacture of aromatics, except as byproducts of gas manufacture, has not been profitable. The production of aromatics from petroleum is accompanied by large quantities of gas, tar, and carbon and the disposal of these secondary products has placed too heavy a burden on any industry not having a market for the principal product, gas, and for tar and carbon as well.

Even the petroleum industry, which is a logical outlet for aromatics as motor fuel, has been similarly handicapped. Of recent years the oil industry has sought to produce aromatics by the catalytic cracking of selected hydrocarbons but such processes do not lend themselves to the employment of heavy residues.

Processing of petroleum for the production of aromatics is essentially a destructive distillation of high molecular weight hydrocarbons into new groupings of simpler structure, accompanied by side reactions and polymerization. Expressed simply, the cracking of petroleum (principally paraffines and naphthenes) follows somewhat this progression: High molecular weight paraffines→olefines→(such as acetylenes, naphthenes, polycyclic compounds)→benzol, toluol, xylol, and higher homologues.

It is also true that in any one group the higher molecular weight compounds tend to split into lower molecular weight compounds, with scission of a radical. For example, butylene→propylene→ethylene, or xylol→toluol→benzol. However this general trend is also accompanied by alkylation and/or polymerization to produce higher molecular weight compounds, i.e., benzol→naphthalene, or benzol→ethylbenzol.

The final products from cracking petroleum, therefore, are numerous and non-selective. These reactions are functions of four variables, namely, temperature, time, pressure and concentration. The character of charging stock, aside from yields, does not materially change the nature of the resulting products.

Temperature, the most important variable, affects the cracking velocity

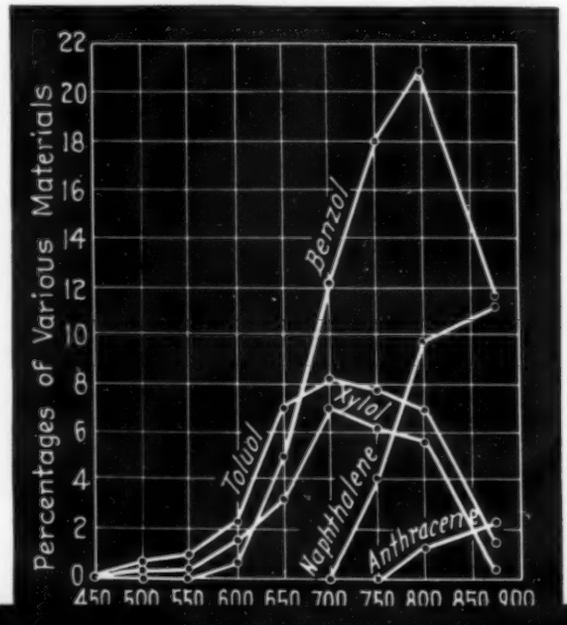


Fig. 1 — Production of aromatics at various temperatures, from data of Egloff and Twomey

Residues

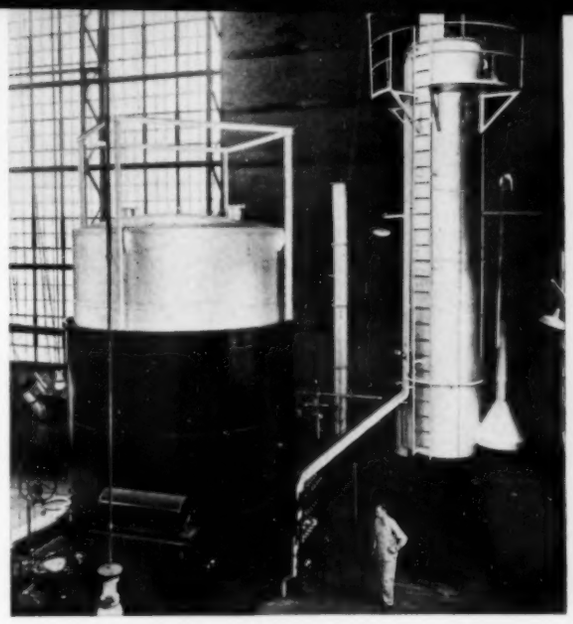


Fig. 3. Left—Oil gas generator pilot plant, for making rich oil gas, high in aromatics

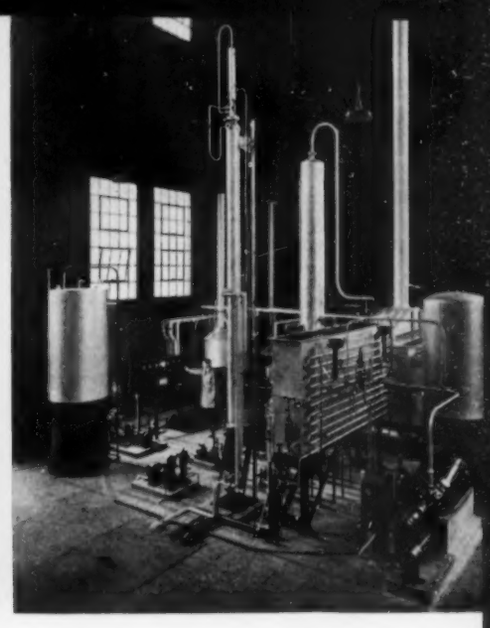


Fig. 5. Right—Semi-commercial tubular type oil cracking unit of 2,000 gal. per day light oil capacity

by doubling the rate for each increase of 10 deg. C. in the cracking temperature, within the range of reaction. (See "Chemistry and Technology of Cracking," Sachanen and Tilicheyev, p. 28.)

Time, more conveniently referred to as "space-velocity," increases the cracking effect with longer duration, and vice versa. This effect is complementary to the effect of temperature, i.e., higher temperature and less time giving results similar to lower temperature and more time.

One effect of pressure is that higher pressures, by decreasing the volume, lower the space-velocity and increase the time of reaction. This effect is of course applicable to the reactions under consideration. However, the purely pressure effect, which is important in cracking for gasoline, does not favor the production of aromatics.

The cracking of petroleum to produce products in the range of olefines and naphthenes is endothermic, while the further cracking of these products into aromatics is exothermic. This is a very important consideration since "runaway" reactions may result from lack of proper time-temperature control.

PRODUCTS OF CRACKING

Finally, economic considerations of the relative values of the components in the resulting mixture of hydrocarbon products will dictate the cracking conditions, which naturally represents a compromise. The chart of Fig. 1 (from data of Egloff and Twomey, *Chem. & Met.*, Vol. 15, 1916) gives a general picture of the proportion of various aromatics resulting from the cracking of petroleum at various temperatures. Where the object of cracking is primarily the production of gas, as in gas works, much higher temperatures are employed than those shown in this chart, resulting in more gas and less aromatics. If the cracking is carried to the ultimate, the final products are carbon and hydrogen.

Oil Gas Manufacture—The manufacture of city gas from heavy petroleum is indigenous to the Pacific Coast, prompted initially by large and cheap supplies of petroleum from the California oil fields. Oil gas has been manufactured by Portland Gas & Coke Co., with which the writer is connected, since the year 1906. However, the usual process*, which is described in the accompanying footnote to facilitate an understanding of what follows, gives a relatively poor yield of aromatics, a fact which led to extensive research on aromatics production in which three different types of operation

* Oil of any desired specific gravity is cracked in cylindrical shells lined with firebrick and filled with checker-work. (See flow diagram, Fig. 2.) The apparatus is fired intermittently with fuel oil, or by burning off the deposited carbon on the checker-work, with air supplied under forced blast. At the expiration of the heating period the air blast is discontinued, the stack valve closed and pre-heated oil is sprayed on to the checker-work which has been heated up to 1,800 to 2,000 deg. F. Gas making is discontinued after the temperature has been reduced several hundred degrees, whereupon the checker-work is purged out with steam and the apparatus is again heated up to the gas-making temperature.

The oil which has been pre-heated to a temperature of 200 deg. F. is progressively cracked as it passes down through the checker-work and finally issues from the base of the generator into a wash-box equipped with a water seal where a large amount of fluffy lampblack is deposited and removed by the water flowing in and out of the wash-box. The gas then passes into water scrubbers for the removal of tar and for further cooling. After passing through the usual relief holder, secondary coolers, exhausters, and gas purifiers, the gas is washed with an absorption oil for the removal of light oil (aromatics) together with all of the naphthalene and the larger portion of the organic sulphur.

Water coming from the wash-boxes is conveyed by flume to a Dorr thickener for concentration, and thence to an Oliver filter where the lampblack is recovered as a cake containing about 35 percent moisture. This cake is dried in rotary oil-fired dryers, similar to cement kilns, to about 12 to 15 percent moisture, and is then briquetted in a rotary press into pillow-shaped briquets which are coated with a starch solution, then dried and sacked. These briquets have a heating value on the dry basis of about 15,000 B.t.u. per lb. and command an excellent price as a domestic fuel.

Tar from the scrubbers and other parts of the plant is dehydrated and distilled to specification road-binder for paving purposes. For this purpose oil tar has been well accepted and has been widely used throughout Oregon.

After absorption the light oil is stripped from the wash-oil and refined into motor benzol, pure benzol and toluol. All of these materials are of exceptional purity. The motor benzol does not require acid washing and is only inhibited.

At the present time the heaviest type Dubbs cracked residuum from 6.5 to 8.5 deg. API is utilized. The use of such heavy residues was made possible by redesign of the oil gas generators in 1935, when the single generators were cross-connected in pairs at the bases, thereby making it possible to blast them in series; that is, alternately down one shell and up the other. In this manner it was possible to burn off the heavy deposits of carbon on the tops of the checkers resulting from this type of heavy oil, and at the same time do away with the use of heating oil.

Composition of the 570 B.t.u. oil gas is as shown in Table I, and the yield as in Table II.

Table I—Oil Gas Composition

Carbon dioxide	1.7
Benzol	0.1
Ethylene	3.4
Oxygen	0.3
Carbon monoxide	7.4
Hydrogen	51.5
Methane	31.7
Nitrogen	3.9
	100.0
Specific gravity	0.386
B.t.u. per cu. ft., gross	570

Table II—Yield of Products from 8.4 Deg. API Charging Stock

Feed, gal. per M cu. ft.	10.00
Gas, M cu. ft.	1.0
Lampblack, lb. per M cu. ft.	28.3
Tar, gal. per M cu. ft.	0.38
Light oil, gal. per M cu ft.	0.46

were worked out: cracking oil in gas generators of conventional design; in tubular equipment; and in Knowles ovens.

GENERATOR OPERATION

Prior to 1923 aromatics were not recovered by Portland Gas & Coke Co. although the gas was known to contain about a quarter of a gallon per M cu.ft. It is, of course, readily apparent from the fundamentals briefly set forth previously that the operating temperature of 1,800 deg. F. necessary to produce a 570 B.t.u. gas is much beyond the optimum point for the production of aromatics. This incidentally explains the high purity of the benzol.

With the object of producing larger quantities of benzol, sufficient to justify recovery, research was undertaken in 1920 and 1921. A process was devised whereby rich oil gas of over 1,300 B.t.u. was produced at the optimum temperature for the production of aromatics. This gas, after being stripped of the aromatics, was reformed to the regular 570 B.t.u. standard. During the reforming operation, additional benzol was produced.

A small gas works owned by the company in Vancouver, Wash., was converted into a pilot plant to study the process. Many data were gathered over a period of several months, resulting also in two different procedures for reducing the high B.t.u. gas to 570 B.t.u. standard: Procedure *A*, by reforming (Hall patent No. 1,409,709); and Procedure *B*, by blending the rich gas with a very low B.t.u. gas to accomplish the same result (Hall patent No. 1,466,648). The latter procedure, which may be operated by producing the low B.t.u. gas in another generator prior to blending, may also be accomplished in the same generator by making low B.t.u. gas at the beginning of the run and high B.t.u. gas at the end of the run.

Procedure *B* in practice produces less benzol than Procedure *A*, but was nevertheless adopted by the company because of the lesser capital investment required and constitutes the present operating method. Procedure *A* lay dormant until recently when it was revived as a part of the current research program.

The production of byproducts such as briquets, tar, benzol and toluol, has resulted in substantial revenues thereby giving Portland Gas & Coke Co. an extremely low cost for manufactured gas and has equipped the company to successfully meet the very severe electrical competition prevalent in the Northwest. It was natural, therefore, in the effort to offset losses of revenues due to rate reductions, to work for additional byproduct revenues. Of these, benzol, because of its high value per pound and available local market as motor fuel, offered the best opportunity.

After a survey of the available art, the most desirable procedure seemed to be the manufacture of high B.t.u. gas with reforming as outlined under Procedure *A* above.

During the year 1938, an oil gas generator pilot plant was built. This plant, illustrated in Fig. 3, consisted of a 4-ft. shell, 35 ft. high, built according to the same design as the large plant generators. A wash-box, scrubber, light-oil absorber and meter were provided together with a 2,000 cu. ft. storage holder. The plant was well instrumented, including a gas calorimeter and Ranarex specific gravity indicator. A still for distilling wash-oil was also installed.

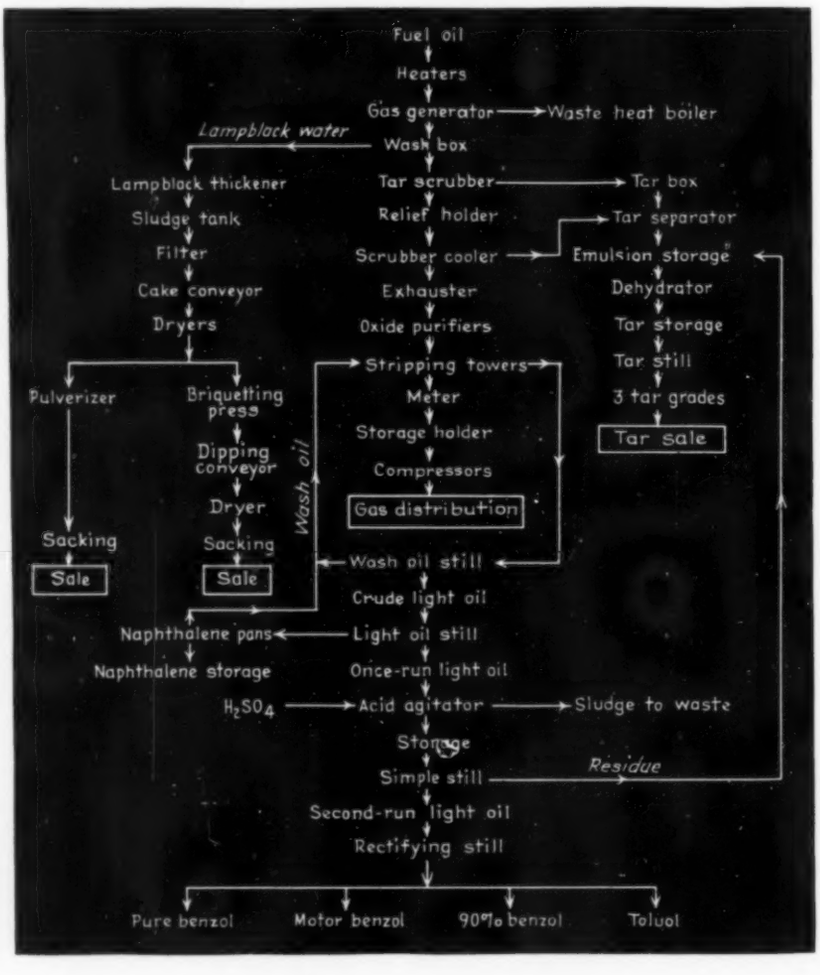
The pilot plant was first operated to produce the regular 570 B.t.u. gas in order to calibrate the plant in comparison with the large commercial generators. Thereafter the pilot plant was operated for about six months to produce various grades of high B.t.u. gas. This gas, after being stripped of light oils and stored in the 2,000 cu.ft. holder, was subsequently reformed in the same pilot plant generator. This was accomplished by taking the gas out of the holder with a small compressor and passing it through the pilot plant generator as in the gas-making operation. The reformed gas, after passing through the same auxiliary apparatus as before and being stripped of secondary light oil, was metered and sent to plant mains.

Various grades of heavy oil from 8 to 12 deg. API gravity were used; while cracking conditions were varied to produce high B.t.u. gas of from 950 to 1,350 B.t.u. per cubic foot.

The rates of flow were adjusted to give best space-velocity conditions. Such optimum conditions were obtained during each run by maintaining the gas issuing from the generator at constant specific gravity by means of the Ranarex indicator, there being a fixed relationship between the heat value of the gas and the specific gravity. There was also a constant relationship between the heat value of the gas and its benzol content, hence the production of aromatics could be controlled by the observation of specific gravity. This type of control is the subject of Hall patent No. 2,217,250.

An accompanying tabulation, Table III, summarizes the observations on

Fig. 2—Flow diagram of processes used by Portland Gas & Coke Co. in production of 570 B.t.u. gas, together with tar, briquets and aromatics



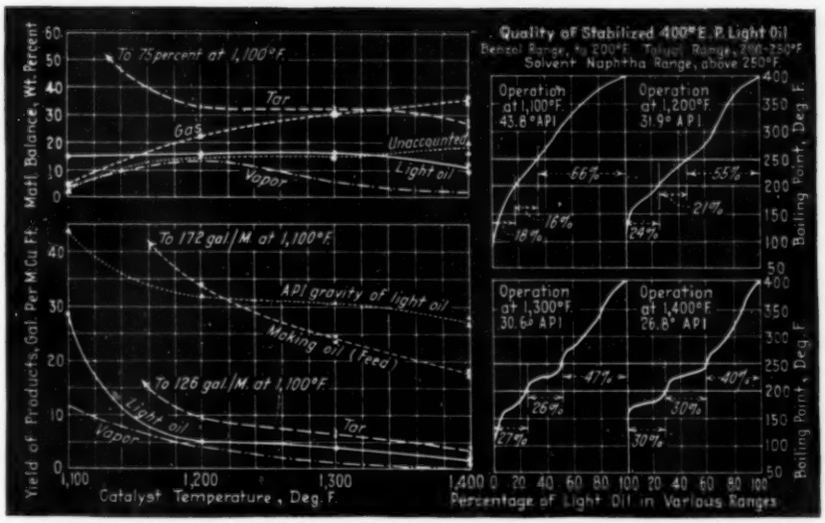


Fig. 4—Summary of cracking data obtained with tubular laboratory cracking unit, operating with a catalyst on a constant flow of 27.1 deg. API stock

12 deg. API oil, which is one of the conditions studied.

It was determined in various series of observations that space-velocity and temperatures were compensating, that is, results could be obtained with high temperatures and high space-velocities similar to those with low temperatures at low space-velocities.

After the completion of the pilot plant study, the operations were transferred to a pair of cross-connected generators for large scale experimentation. These generators were disconnected from the generator house mains and the wash-box and tar scrubbers were supplemented by a wash-oil absorber.

Instrumentation was provided to record oil quantity and rate of flow, with a Ranarex indicator for specific gravity of the gas and a calorimeter to give the heating value. Operation of the large scale apparatus gave substantially the same operating results as the pilot plant, although some difficulty was found in producing the tremendously high space-velocity utilized in the pilot plant because of the limitations in the oil piping system.

Reforming operations were not studied on a large scale since this operation is already a conventional one in the gas industry.

The quantities of tar produced in high B.t.u. operation are much in excess of the available market for road paving materials and the excess tar must be utilized for manufacturing 570 B.t.u. gas as a substitute for heavy oil in the regular generators. Hence, the gas-making value of the high B.t.u. tar was studied in pilot plant operation. In making 1,000 cu.ft. of 570 B.t.u. gas of 0.395 sp.gr., 18.30 gal. of making tar of 1.187 sp.gr. yielded 2.15 gal. of tar-gas tar of 1.195 sp.gr. and 0.50 gal. of light oils of 0.8849 sp.gr.

Table IV—Summary of Observed Data on Tubular Pilot Plant

Charging Stock

Gravity, deg. API at 60 deg. F.	27.9
Viscosity, SUS at 77 deg. F.	47.
Viscosity, SUS at 122 deg. F.	35.
Molecular weight	193.
Distillation range, 99%, deg. F	358–688

Operating Data

Test Number	59
Av. outlet temp., deg. F.	1,435
Av. sp. gr. gas	0.95
Heating value, B.t.u. per cu. ft., gross	1,418
Feed per M cu. ft., gal	22.5
Prebenzol per M cu. ft., gal	1.06
Light oil per M cu. ft., gal	3.01
Naphthas per M cu. ft., gal	3.78
Tar per M cu. ft., gals	4.93
Total liquid products per M cu. ft., gal	12.78

Gas Analysis (Vol. %)

O_2	0	C_2H_6	10.10
N_2	0	C_3H_8	15.60
CO_2	0.40	C_4	6.90
CO	9.40	C_5	2.80
H_2	10.70	C_6	0
CH_4	34.40	C_7	0
C_2H_4	19.10		
			100.00

TUBULAR EQUIPMENT

Concurrently with the investigations for producing aromatics in the internally fired checker-work type of apparatus, tubular equipment was also explored, with and without the use of catalysts.

In this procedure it is, for obvious reasons, necessary to use a petroleum with a relatively low Conradson residue, as exemplified by a diesel oil. The type of laboratory apparatus used in this investigation consists essentially of a cracking tube preceded by a small vaporizer and a constant feed device. The apparatus is electrically heated and equipped with thermocouples. The cracking tube is followed by a water-cooled condenser and a dry ice freeze-out apparatus. Observation of specific gravity is by a Ranarex indicator, and of heating value, by a calorimeter. The results of trials at various temperatures are shown in Fig. 4. It will be noted from the distillation range of the products boiling within the motor fuel range that satisfactory aromatic content, as indicated by the benzol and toluol plateaus, was not produced until temperatures between 1,300 and 1,400 deg. F. were reached.

About the time this investigation was completed it was learned that the General Fuel Co. of Detroit had been working along parallel lines and, after some negotiations, it was decided to combine forces to prevent duplication and to expedite results. As a result of this arrangement a semi-commercial tubular cracking unit was designed by the Bechtel-McCone-Parsons Co., petroleum refinery engineers, and built by Portland Gas & Coke Co. at the company's plant. This pilot plant is illustrated in Fig. 5. It had a capacity of 2,000 gal. of light grade oil per day and consisted of a gas-fired furnace

Table III—Pilot Plant Yields With High B.t.u. Operation of Oil Gas Generators

(Charging stock, 11.7 to 12.0 deg. API cracked residuum)

Date of Run	6/3	6/2	6/1	6/7	5/31	6/6	6/10	6/4	6/8	6/9
Sp. gr. of lean gas (Ranarex)	0.50	0.62	0.67	0.70	0.74	0.75	0.78	0.78	0.81	0.85
Oil used, gal. per M cu. ft	15.28	17.66	18.90	19.35	20.90	19.83	20.90	24.65	23.04	25.05
Light oil, gal. per M cu. ft	1.01	1.66	2.03	2.10	2.19	2.24	2.30	3.43	3.10	3.47
Tar, gal. per M cu. ft	4.54	7.41	5.20	7.13	8.90	8.40	8.34	11.10	8.44	11.28
Oil used, lb. per M cu. ft	125.4	145.5	155.2	158.8	170.0	163.0	171.6	203.0	189.0	205.5
Gas, lb. per M cu. ft	38.2	47.4	51.2	53.5	56.6	57.4	59.6	59.6	61.9	65.0
Light oil, lb. per M cu. ft	7.3	11.9	14.8	15.1	15.8	16.2	16.4	23.8	21.7	24.9
Tar, lb. per M cu. ft	40.8	66.7	47.1	64.2	80.1	75.6	75.0	99.9	76.0	101.6
Recovery, lb. per M cu. ft	86.3	126.0	113.1	132.8	152.5	149.2	151.0	183.3	159.6	191.5
Recovery, percent by weight	68.8	86.6	72.8	83.6	89.7	91.5	88.0	90.3	84.4	93.1
Light oil, vol. percent of making oil	6.6	9.4	10.7	10.9	10.6	11.3	11.0	13.9	13.5	13.9
Tar, vol. percent of making oil	29.7	42.0	27.5	36.8	42.9	42.3	39.9	45.0	36.6	45.0
Gas, weight percent of making oil	30.5	32.6	33.0	23.7	33.3	36.2	34.9	29.3	32.8	31.6
Light oil, deg. API gravity	30.8	29.9	30.1	31.9	31.7	30.9	33.8	37.0	35.6	39.2
Gas, B.t.u. per cu. ft. (gross)	946	1,075	1,125	1,194	1,208	1,254	1,295	1,308	1,318	1,362
Higher olefines in gas, vol. percent	3.4	5.1	8.0	9.6	12.6	11.1	13.6	13.2	15.0	16.5

containing alloy tubing, followed by a fractionating column for the separation of heavy residues from the gas and light oil. The overhead products, after cooling, were compressed to 650 lb. per sq.in. and the condensate was rectified in a stabilizer to separate the prebenzols from the light oil.

This plant was operated for about six months and produced an excellent grade of aromatics. The operation was quite critical on account of the production of carbon in the exit connections, but this mechanical difficulty was overcome by the installation of carbon removing devices. Operations were conducted with and without a catalyst, generally around 1,400 deg. F., and the results from a typical run are shown in Table IV. Control of the operation was principally by the specific gravity of the outcoming rich gas, since an excellent correlation between specific gravity and the degree of cracking was found to exist.

It was also found that the quality of light oil in regard to aromatic content was readily judged from the specific gravity of the fraction boiling below 422 deg. F., satisfactory aromatic content being obtained with light oil having an API gravity below 32. This quality was generally associated with a gas specific gravity of 0.9 or less. It will be noted that the percentage yield by volume of aromatics from the 27 deg. API charging stock was greater than the corresponding yields in the generator type of operation from 12 deg. oil. This comparison is, however, somewhat misleading since if the 12 deg. oil is evaluated for its diesel oil content, the results are surprisingly similar.

KNOWLES COKE OVEN

The manufacture of 570 B.t.u. oil gas in checker-work generators produces as a byproduct large quantities of lampblack. This material, when briquetted, produces a high type of domestic fuel, but is not well suited for electro-metallurgical purposes where petroleum coke finds its field. Portland has lately become the Mecca for electro-metallurgical and electrochemical processes because of the advent of cheap power from the Bonneville development on the Columbia River. The aluminum industry, represented by the plants of the Aluminum Co. of America and the Reynolds Metals Co., has located in the Portland area and requires large amounts of petroleum coke for the manufacture of electrodes. This material is not produced in the Northwest and must be imported.

Consideration was therefore given by Portland Gas & Coke Co. to the manufacture of electrode coke from petroleum. After considerable study of the available apparatus Knowles ovens were selected for this purpose, and an investigation was carried on jointly with the H. A. Brassert Co. of New York resulting in the building of a pilot coke oven.

This oven consisted of an insulated brick chamber approximately 3 ft. wide, 6 ft. long and 8 ft. high outside, with a hearth of silicon carbide, and walls about 1 ft. thick including the insulation. The oven was equipped with doors at either end for the removal of coke and was fired under the hearth by gas burners. A gas-fired silicon carbide muffle was provided in the upper part of the oven for superheating the gases from the distillation of oils, and a gas offtake communicating with the gas condensing and recovery apparatus already available in the generator type pilot plant. The investigation had two objectives: (1) to produce a type of coke suitable for the production of electrodes, and (2) to crack the overhead materials sufficiently to produce a satisfactory grade of aromatics. Trials demonstrated that both objectives could be achieved. An 8½ deg. API Dubbs cracked residuum was utilized for the investigation, the results of which are given below in Table V.

Knowles ovens have heretofore been used for the cracking of heavy petroleum residues in the oil industry, with the object of producing products in the range of gasoline and gas oil, and of getting rid of the carbon residue. The fractionation of aromatics in the Portland Gas & Coke Co.'s operation is a new objective and requires cracking at elevated temperatures and with modifications of the oven design.

Character of Aromatics—Consideration of the fundamentals set forth at the beginning of this paper makes it apparent that the yield and quality of aromatics produced by cracking are the result of the proper application of temperature and space-velocities. Therefore, the choice of charging stock and of apparatus are merely matters of economics.

Portland Gas & Coke Co.'s investigations were directed primarily to the production of aromatics of relatively high purity, susceptible to being refined into specification products. It was desired to produce a grade of light oil of such a quality as to minimize refining difficulties, that is, under conditions of cracking sufficiently severe to eliminate most of the gum-forming diolefines. The light oils produced from the three methods described were generally of the same character when produced under similar cracking conditions. It was found that the light oil responded in a satisfactory manner to the usual refining methods employed in making motor benzol, pure benzol, pure toluol and the various other specification products usually obtained from coal tar. As an instance of the satisfactory quality of these light oils, it may be said that nitration toluol free from paraffines is readily prepared. It may be generally stated that light oil manufactured from petroleum under proper cracking conditions is in every way equal to the light oil from coal gas or coke oven plants.*

Oil tar from the coke oven is quite similar to that produced from the generator type of operation and is equally suitable for the preparation of road binders, briquetting and electrode pitches. The oil coke from Knowles ovens can be processed either to metallurgical or foundry coke, or to the high density coke required for the manufacture of electrodes.

Olefines—The lean gas after stripping of aromatic contents has an analysis as shown in Table VI. It will be noted that substantial quantities of ethylene, propylene and butylene are present in this gas. These products can be readily recovered by a combination of absorption, compression and refrigeration and are pres-

Table V—Coke Oven Pilot Plant Yields

Run No.	67
Feed, deg. API	8.4
Feed, gal. per M cu. ft.	17.8
Gas, M cu. ft.	1.0
B.t.u. per cu. ft., gross	1,038
Specific gravity	0.64
Light oil, 422 deg. E. P., gal. per M cu. ft.	2.15
Tar, gal. per M cu. ft.	6.08
Coke, lb. per M cu. ft.	22.68

Table VI—Lean Gas Composition

	Volume Percent
Carbon dioxide	0.20
Carbon monoxide	1.54
Oxygen	0.58
Hydrogen	22.74
Methane	43.59
Nitrogen	4.46
Ethylene	10.44
Ethane	7.20
Propene	6.00
Butenes	2.08
Pentenes	0.63
Hexenes	0.54
	100.00
B.t.u. per cu. ft., gross	1,038
Specific gravity	0.6379

* There is one distinct difference between the light oils and tars produced from petroleum and those produced from coal, which is the practical absence of oxygenated and nitrogenous compounds such as phenols and pyridine bases, only traces of these materials being present. On the other hand, the higher boiling fraction of oil tar corresponding to the creosote oil fraction in coal tar is also an excellent wood preservative. An investigation of the merit of oil tar creosote prepared by Portland Gas & Coke Co. has been made by Prof. Glenn Voorhies of Oregon State College and the results of his investigation have been published in Oregon State College Engineering Experiment Station Bulletin No. 13, entitled "Oil Tar Creosote for Wood Preservation." This investigation indicates that phenols are not necessary to a good wood preserving creosote and in fact are generally removed from coal tar creosote; and that because of the volatility of phenols their preservative value is of short duration.

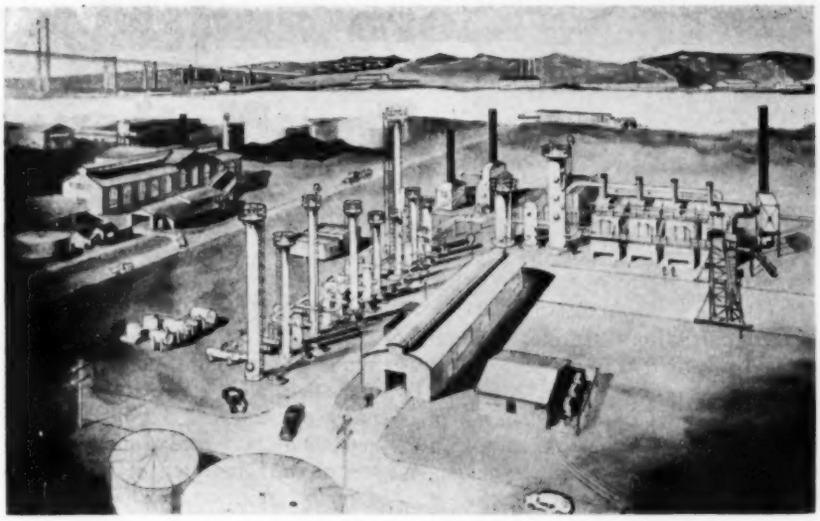


Fig. 6—Artist's drawing of new heavy-residuum cracking plant, using Knowles ovens, being built by Portland Gas & Coke Co. for byproduct production

ent in considerably larger amounts than in the cracking gases from oil refineries.

These olefines constitute a cheap and substantial supply of raw material for numerous synthetic organic chemicals. Availability of these hydrocarbons in the Northwest is particularly important in view of cheap electric power for the production of chlorine and caustic soda, which are generally the tools for converting the olefines into the numerous plasties and other products which have become so important to industry in the past few years. In a following section the utility of these products will be illustrated.

BYPRODUCT DEVELOPMENT

The research program briefly described above gave Portland Gas & Coke Co. the choice of several methods for the production of aromatics and the decision became a matter of economics. The Knowles coking oven method was finally chosen because, in addition to producing all of the byproducts given by the other methods, it also produces petroleum coke.

Therefore, we are now building four Knowles coke ovens for the processing of 8½ deg. API Dubbs cracked residuum. These ovens will be supplemented by light oil recovery apparatus together with additions to the existing light oil refinery which will permit the production of additional motor benzol and toluol, together with specification xylols and solvent naphthas. The tar will be processed to electrode pitch and road binder in existing tar distilling equipment.

Surplus tar will be used as a substitute for generator fuel in the existing oil gas generators, for which purpose tankage and piping connections will be provided. Lean gas after the removal of light oil is of approximately 1,100 B.t.u. and will be reformed in the existing oil gas generators to the required standard of 570 B.t.u., during which operation additional quantities of light oil and lampblack will be produced. It is expected that this plant, which will cost about $1,250,000, will be ready for operation in December of this year. An artist's drawing of the completed plant is shown in Fig. 6.

From this development, including existing facilities, Portland Gas & Coke Co. will produce annually byproducts including 3,350,000 gal. of benzol, 540,000 gal. of toluol, 320,000 gal. of xylol, 317,000 gal. of solvent naphtha and 2,500,000 gal. of road tar; in addition, 42,000 tons of briquetted lampblack, 21,000 tons of electrode coke and 15,000 tons of electrode pitch. Not initially recovered but available for future production annually will be 3,000,000 gal. of creosote oil and 14,000,000 lb. of ethylene, 12,000,000 lb. of propylene and 6,000,000 lb. of butylene.

The gas industry is a logical collaborator of the oil refining industry for the most advantageous and economic processing of petroleum, a fact which is true principally for two reasons: (1) The gas industry can process petroleum advantageously at operating temperatures suitable for the production of aromatics, since the production of large quantities of gas does not constitute a limitation. (2) The petroleum industry, however, can process petroleum advantageously only to a point where the residues are sufficiently fluid for transportation. If the oil is processed to coke, the local market must be depended upon in view of freight limitations. Only in favored locations are the local markets large enough to absorb the quantities involved.

GAS INDUSTRY OPPORTUNITY

Thus it seems apparent that the gas industry can with advantage carry on the processing of petroleum from a point where the oil industry leaves off. To be sure, the petroleum industry can produce aromatics by selective extraction of materials containing small quantities of aromatics or by the catalytic cracking of selected hydrocarbons, but it is not believed that such methods can compete with aromatics produced by the gas industry from the heaviest petroleum residues.

There is a real opportunity for the gas industry to take its place in the sun as a purveyor of hydrocarbons to the chemical industry. There are few industrial organic chemicals that can not be synthesized directly or indirectly from either olefines or oromatics. To mention only a few of these, motor fuels, phenol, amines, styrene, lacquer solvents and explosives can be derived from the aromatics produced. With the recovery of methane and ethane, in addition to the olefines mentioned, alcohols, esters, resins, high anti-knock motor fuels and other organics such as glycols can be made. From the tar, road and roofing materials, pitches, paints and wood preservatives are all recoverable, and from the carbon, all types of coke and carbon products, as well as carbon derivatives such as CaC_2. In fact the future of the manufactured gas industry in its intense competition with other fuels may well depend upon the capitalizing of these opportunities.

Acknowledgment—For their valuable contributions to the above investigations the writer extends his grateful acknowledgments to his associates in Portland Gas & Coke Co., Norman H. Wardale, S. C. Schwarz, J. K. Lehman, and the laboratory staff; as well as to C. T. Draney of Bechtel-McCone-Parsons Co., U. H. Stallings of H. A. Brassert Co., and Profs. George H. Gleeson and Glenn Voorhies of Oregon State College. This project is indebted to Paul B. McKee, president of Portland Gas & Coke Co., for his constructive vision and sympathetic support.

Attachment B

SOU Boundary Documentation

MAUL FOSTER ALONGI

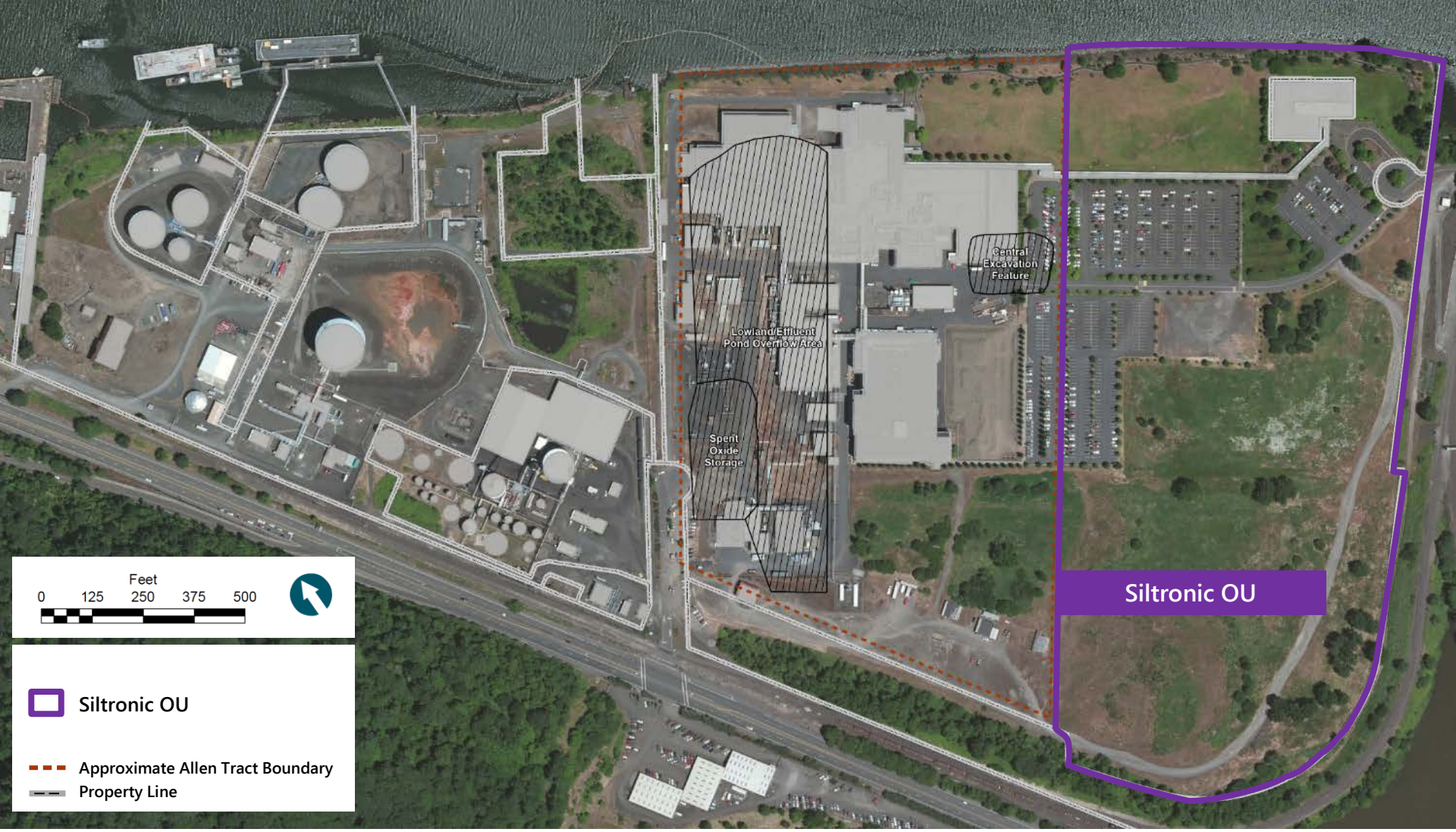
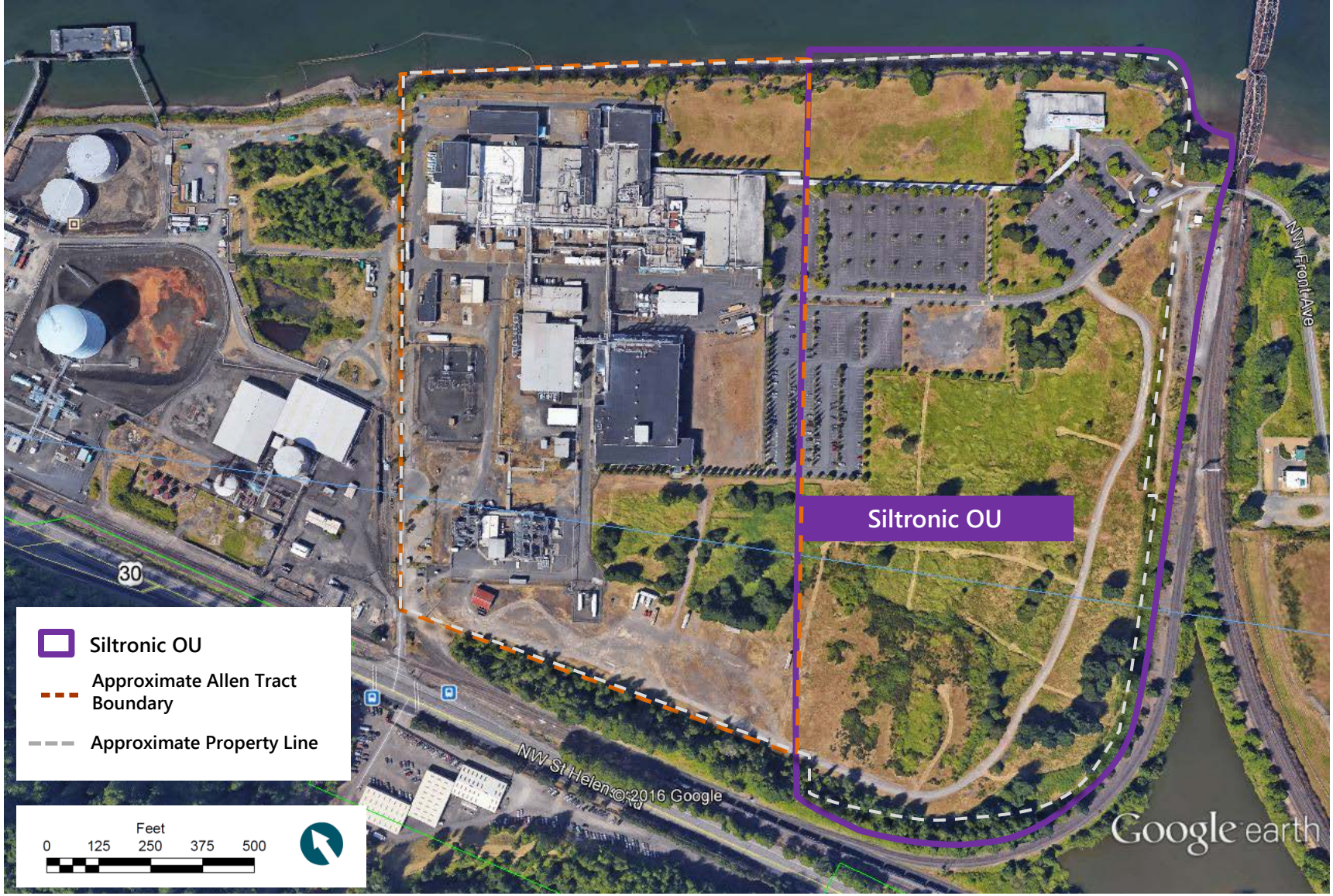


Exhibit A

Southern Siltronic Site Operable Unit (Siltronic OU)

(boundary is approximate)

DEQ Order No. OPSR-NWR-16-02



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