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Environment

Subject:
Data Report for Offshore Sediment Sampling

Date:
March 3, 2008

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B0066111.0000.00006

Dear Ms. Cook:

This letter data report has been prepared, on behalf of Georgia-Pacific LLC (Georgia-Pacific), to provide data collected pursuant to the Work Plan for Offshore Sediment Sampling (Offshore Work Plan; ARCADIS BBL, 2007a) at the Former Georgia-Pacific Wood Products Facility, Fort Bragg, California (site) (Figure 1). The work plan was submitted to the California Department of Toxic Substances Control (DTSC) on June 26, 2007, and the studies were implemented between July 7 and August 8, 2007. This letter report presents the results and conclusions of the offshore study.

The offshore environment is defined as the area west of the property boundary and below the mean high-tide line (ARCADIS BBL, 2007a). The offshore environment has not been designated as an Operable Unit (OU), and is not formally considered as part of any of the defined OUs for the site.

Summary of Offshore Study Findings

To support the offshore study presented herein, 22 intertidal sediment samples from 12 locations within Soldier Bay, three sediment samples from three subtidal zone locations in Soldier Bay, and 14 sediment samples from 6 reference locations were collected and submitted for laboratory chemical analysis. Additionally three samples of scrap metal were collected from shoreline areas and used to conduct a laboratory metals leaching study, and historic relevant groundwater and surface water data were considered to assess the potential for offshore impacts associated with on-site and/or historic sources. Based on this information and the evaluation presented in this letter report, the following findings have been developed and are further discussed and substantiated in the sections that follow:

1. Concentrations of constituents in offshore sediments are generally lower than conservative sediment screening levels (Effect Range Low [ER-L] values; Long et al., 1995). Only antimony, chromium, copper, lead, and zinc were observed at concentrations greater than ER-Ls at a few sampling locations (primarily location SP-4.1) and only zinc near the Pond 8 discharge was detected above the effects range median (ER-M; Long et al., 1995).
2. As sediment concentrations greater than ER-Ls are isolated and do not appear to be indicative of a general or larger contamination issue, and the spatial area associated with the elevated concentration of zinc in sediment in the area of the Pond 8 discharge is limited, it is reasonable to conclude that site-related constituents in sediments do not occur in concentrations that would be expected to adversely affect the offshore environment.
3. Based on an evaluation of available groundwater and surface water data, and the results of the laboratory metals leaching study, with the exception of zinc (which likely comes from storm water associated with the Pond 8 discharge and not metal debris), there do not appear to be any current site-related sources consistent with the elevated metal concentrations detected in offshore (intertidal) sediment.
4. Surface water discharges from Pond 8 (which include significant inputs of storm water from the City of Fort Bragg) may represent a current source of zinc to sediment in a very limited area (i.e., the specific drainage path of Pond 8 discharge through the intertidal area). Due to dilution, however, the discharge is not expected to have a significant effect on the surface water in Soldier Bay.
5. Although under laboratory leaching test conditions certain metals may leach into seawater, metal debris is not the likely source of the limited elevated metal concentrations observed in sediment at location SP-4.1 as those metals elevated in sediment do not correspond with those found to be leachable. If some leaching from metal debris is occurring, the sediment data collected show that it is not likely to result in elevated levels of those same metals in an area of any significant size or magnitude in surface or subsurface sediment.
6. Based on the results obtained from the offshore study, it can be concluded that there is no evidence that significant effects have occurred or are occurring in the offshore environment in the vicinity of the site due to site-related sources, and additional investigation of sediment is not needed.

Objectives of Study and Discussion of Offshore Conceptual Site Model (CSM)

As stated in the Offshore Work Plan (ARCADIS BBL, 2007a), data were collected to address two general objectives:

1) To determine if current conditions in the offshore environment of Soldier Bay have been affected by historical releases from the site

2) To evaluate the potential for soluble and potentially bioavailable metals to leach from metal debris along the coastline into the offshore environment.

These general objectives and the specific elements of the offshore study design were developed based on consideration of the CSM for the offshore environment. In the Offshore Work Plan (ARCADIS BBL, 2007a) a preliminary conceptual site model was developed and used to assess potential sources of contamination and transport pathways to the offshore environment and implications for current conditions. As indicated in the CSM (Figure 2), the following potential sources and release mechanisms were identified:

- Release of potentially contaminated groundwater (in the form of seeps and/or springs) from onsite to the marine environment

- Discharge of potentially contaminated surface runoff and stormwater/pond discharge to the marine environment

- Historical disposal of refuse to the bluffs, cliffs, and marine environment.

As discussed in the Offshore Work Plan (ARCADIS BBL, 2007a), it is unlikely that groundwater discharge to the marine environment represents a significant source to the offshore environment, as there are relatively few areas of groundwater discharge (relative to the length of shoreline associated with the site), groundwater and seep data from shoreline wells show very low levels of chemical constituents that are generally below screening levels, only a limited volume of water is discharged relative to the size/volume of the receiving system, and mixing/dilution is expected to be instantaneous and significant at points of discharge given the high-energy nature of the system. Surface water, including storm drain discharges, pond discharges, and

overland storm water runoff are also not expected to be a significant transport pathway to the offshore environment along most of the site for these same reasons.

The only area where direct groundwater and surface water discharge may potentially represent a significant transport pathway is in the vicinity of Soldier Bay. In Soldier Bay there are a number of groundwater and surface water inputs and conditions can be less turbulent (compared to open coastline) which likely results in less (although still significant) dilution at points of potential discharge. Soldier Bay also contains the largest contiguous beach and the greatest extent of intertidal habitat and sediments due to the relative gradual slope of the land at the ocean interface.

To directly evaluate the potential effects of the above groundwater and surface water sources to offshore sediments in Soldier Bay, Georgia-Pacific proposed to conduct offshore sediment sampling as a means of providing verification that current conditions in the offshore environment of Soldier Bay have not been affected by historical and/or ongoing releases. The resulting data is presented and discussed in this report together with relevant groundwater and surface water data, to support conclusions regarding the potential impact of potentially contaminated groundwater, stormwater runoff and pond discharges to the marine environment.

As discussed in the Offshore Work Plan (ARCADIS BBL, 2007a), portions of the site along the coastline were used as dumping grounds primarily for general refuse and debris (i.e., as a municipal dump), including various metallic items. Over time, the metal debris has weathered, and in some areas of the bluffs (below the mean high tide line) and along the shoreline and within some beach areas, scraps of metal and metal slag can be found. To evaluate the potential for metal debris to serve as a source of metals to the offshore environment, a laboratory metals leaching study was conducted. These results are also presented.

Sample Design, Collection, and Analysis

Sediment Sampling

To evaluate whether current conditions in the offshore environment of Soldier Bay have been affected by historical releases from the site, sediment samples were collected from the intertidal and subtidal area as well as from four reference locations (ARCADIS BBL, 2007a). At all locations, sediment was collected from 0 to 6 inches below sediment surface (bss), and if possible subsurface sediment was additionally collected from 6 inches to 3 feet bss (or refusal) at site locations.

The sample locations within Soldier Bay are presented in Figure 3, the reference sediment sample locations are presented in Figure 4, and the specific sampling design is discussed further below. Additional information on the sampling process, identification, analysis, and validation of the data is provided in Attachment A.

Intertidal Sediment Sampling

Sediment samples were collected from four locations associated with each of four outfalls (i.e., from north to south, Soldier Outfall North, Soldier Outfall South, Pond 6 Outfall, and Pond 8 Outfall). Samples were also collected from two additional locations at the north end of Soldier Bay beach to address potential impacts from two seeps/springs (unnamed seep and seep SP-4.1). The six locations provide coverage in the areas most likely to have been impacted by chemicals within pond overflows, stormwater, and direct groundwater discharges (i.e., seeps) to the marine environment. Based on an elevated detection of PCBs in surface soils within the former Scrap Yard, also identified as Geophysical Anomaly 3, sediment was also collected from an additional location in the north end of Soldier Bay at a small beach just below this area (Beach SED-1). Samples were collected at low tide and as close to shore as possible at locations where sediment (not rip-rap, cobble, or gravel) is present. To assess the spatial distribution of potential contamination, sediment samples were also collected from a second location 20 to 25 feet farther offshore from the first location when possible. Locations are referred to as high intertidal (1A locations on Figure 3) and low intertidal (1B locations on Figure 3), respectively.

Subtidal Sediment Sampling

In addition to the intertidal locations, samples were also collected from three subtidal locations in Soldier Bay. A location was selected in the southern portion of the bay to evaluate potential impacts from Pond 8 discharges. The remaining two locations (one in the northern portion of the bay and one as close as possible to the shore in the central portion of the bay) were selected to provide additional spatial coverage of the nearshore environment of the bay and to address potential sources in the center and the northern portion of the bay.

Reference Sediment Sampling

To support comparisons of site-associated sediment results with regional ambient or reference concentrations of chemical constituents, sediment samples were collected from four reference locations:

- REF 1 – north of Virgin Creek
- REF 2 – north of Pudding Creek
- REF 3 – in Noyo Bay
- REF 4 – near Hare Creek.

These locations were selected based on a review of the coastline in the vicinity of the site and a discussion with the agencies on April 20, 2007, to identify a range of relatively un-impacted coastal areas with habitat characteristics similar to the offshore area adjacent to the site, and which reflect chemical inputs from general coastal sources without influence of the site itself to serve as reference locations. From each of the areas listed above, a sediment sample was collected from an intertidal location close to shore and also from a second location 20 to 25 feet farther offshore from the first location when possible.

Sediment Sampling Summary

A tabular summary of the sediment sampling conducted, including sample location identifications (IDs), date and time of collection, sample depths, and analyses run on the samples is presented in Table 1. The following summarizes the sampling effort:

- A total of 22 intertidal samples were collected from 12 locations within Soldier Bay. Samples could not be collected farther offshore from SB Seep SED-1. For all other locations, samples were collected from a second location farther offshore. A subsurface sample could not be collected from location Soldier Outfall N SED-1B or Soldier Outfall S SED-1B due to the presence of a bedrock layer. Subsurface samples were collected from all other locations.

- A total of three samples were collected from three subtidal zone locations in Soldier Bay. Efforts to collect core samples from Bay-Sed-1 and Bay-Sed-3 were not successful; surface samples only were collected at each location. At Bay-Sed-2, one sample was collected from the 0- to 1.5-bss range.

- A total of 14 sediment samples were collected from 6 reference locations. Subsurface sediment could not be collected from Ref 1A-SED due to the highly saturated and unconsolidated nature of the sediments which prevented sediments from remaining intact, or from Ref 3A-SED due to the presence of rocky material. For all locations, samples were collected from the second location farther offshore.

Metal Debris Sampling

To evaluate the potential for metals to leach from metal debris along the coastline into the offshore environment, a total of three samples of scrap metal were collected from the Glass Beaches 1 and 2 and from the SP-4.1 discharge area at Soldier Bay. At SP-4.1, sediment sampling was also conducted and spring/seep data exists; thus allowing for an evaluation of likely sources of any elevated concentrations of constituents in sediment if discovered. Sample locations are presented in Figure 3. Ocean water was collected for use as extraction fluid just offshore from Glass Beach 2, near the location of the former explosives bunker (note that this bunker was only used to store explosives to break up log jams in the river; explosives were never used onsite). Water was collected by wading out into the water and filling a carboy. A tabular summary of the metal debris sampling methods, including sample IDs, date and time of collection, and analyses run on the samples is presented in Table 2.

As the purpose of this study was not to characterize scrap metal at the site from a hazardous waste perspective, a modified method was used to conservatively simulate the potential for metal leaching in a high-energy, saltwater environment. As described in Attachment A, the modified method involved using seawater collected from the site as the extraction fluid, a 20:1 liquid to solid ratio, and continuous agitation for 18 hrs at 21.0 degrees Celsius[1] at a rate of 29.7 revolutions per minute. It is important to emphasize that results obtained from these laboratory procedures do not and should not be considered to represent actual or estimated environmental concentrations of metals in the offshore environment (i.e., they do not represent environmental exposure) but only indicate the potential for leaching.

All samples were collected and analyzed for leaching potential in the laboratory in accordance with the Offshore Work Plan (ARCADIS BBL, 2007a) and the Quality Assurance Project Plan (ARCADIS BBL, 2007b). Details regarding the sampling process, sample identification, sample analysis, and data validation are provided in Attachment A.

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[1] Based on NOAA National Oceanographic data from nearby NOAA ocean monitoring stations in Mendocino & Blunts Reef (http://www.nodc.noaa.gov/dsdt/cwtg/cpac.html) ambient water temperature in Soldier Bay likely range from approximately 10 to 12 C. The difference in laboratory exposure and ambient ocean temperatures (i.e., 21 vs. 9 to 14 degrees C) would not likely have a significant effect on metals leaching potential.

Results

The results of the sediment sampling and analysis compared to sediment screening levels and the results of the metal debris leaching laboratory study results compared to seawater are discussed below.

Sediment

Tables B-1 through B-6 in Attachment B present the analytical results for sediment from the offshore sampling effort. The results for all samples including surface, subsurface, intertidal, subtidal and reference are presented. Concentrations higher than sediment screening levels and maximum detected concentrations in reference samples are indicated. Sediment screening levels selected for the sediment data evaluation include the effects range low (ER-L) and median (ER-M) (Long et al., 1995). There are no ER-L and ER-M values for dioxins. To assess the potential ecological impact of detected dioxin concentrations, data were compared to the Canadian Council of Ministers of the Environment (CCME) Sediment Quality Guidelines for the Protection of Aquatic Life (CCME, 2002), the National Oceanic and Atmospheric Administration (NOAA) apparent effects threshold for 2,3,7,8-TCDD in marine sediment (Buchman, 1999), and the Sediment Quality Guidelines from the Washington Dredged Material Management Plan (Wenning et al., 2004).

Concentrations of constituents in offshore (intertidal and subtidal) samples were generally detected at concentrations greater than at selected “clean” reference locations (i.e., individual sample results were observed to be greater than maximum detected reference concentrations). However, concentrations of constituents in offshore sediments were generally lower than the selected conservative sediment screening levels. Concentrations of only five metals (i.e., antimony, chromium, copper, lead, and zinc) were observed to be greater than conservative sediment screening levels, and were limited to three sampling locations (i.e., SP-4.1-Sed 1A, SP-4.1-Sed 1B, and Pond 8 Sed-1A).

At location SP-4.1-Sed-1A, detected concentrations of antimony, copper, and lead in subsurface sediment were greater than their respective ER-Ls, but were close to an order of magnitude lower than their respective ER-M in all cases (Attachment B). None of these metal concentrations were greater than their respective ER-Ls in surface sediment at this location, or in surface or subsurface sediment at location SP-4.1-Sed-1B, which is just down the beach and bounds location SP-4.1-Sed-1A to the west (towards the ocean). The only metal detected at a concentration greater

than the lowest screening level (I.e., the ER-L) was chromium in the surface sample at SP-4.1-Sed-1B. The detected concentration of chromium at this location was, however, lower than the ER-M.

Zinc was detected in the Pond 8 Sed-1A surface sediment sample at a concentration of 906 milligrams per kilogram (mg/kg), which is greater than both the ER-L and the ER-M. Concentrations in the subsurface sample from Pond 8 Sed-1A and in the samples collected farther offshore (i.e., Pond 8 Sed-1B) were not, however, greater than conservative sediment screening levels. It should be noted that Pond 8 receives 40% of the City of Fort Bragg's storm water and zinc is a common stormwater contaminant.

The remaining constituents (i.e., polychlorinated biphenyls [PCBs], dioxins/furans, semivolatile organic compounds [SVOCs], and polycyclic aromatic hydrocarbons [PAHs]) were not detected or were detected at concentrations well below screening levels in all of the subtidal and intertidal samples collected.

A summary of sediment screening-level comparisons is provided in Table 3, and the locations where detected concentrations were observed to be greater than applied sediment screening levels are presented on Figures 5 through 9. The implications of these results are discussed further in the discussion and conclusions sections below.

Metal Debris

Initial concentrations of metals in the seawater extraction fluid (collected just offshore of the site) and resulting concentrations for each of the 3 metal debris samples after the 18 hour laboratory agitation period are shown in Table 4. These results indicate that, under the given laboratory leaching test conditions (see Attachment A), certain metals can leach into the seawater. Metals with laboratory-derived leachate concentrations greater than initial seawater concentrations included antimony, barium, beryllium, cadmium, cobalt, copper, iron, lead, manganese, nickel, silver and zinc (Table 4).

Discussion

An evaluation of available relevant groundwater and surface water data (Attachment C), as well as the laboratory metals leaching data collected as part of this study, indicates that, with the exception of zinc (which likely comes from stormwater associated with the Pond 8 discharge and not metal debris), there are no current

sources consistent with the elevated metal concentrations detected in offshore sediment or metals found to be leachable from metal debris.

Data collected from seep SP-4.1, which discharges just above where sample SP-4.1-Sed-1A was collected, indicate that concentrations of all metals in this water are either non-detect or below Ocean Plan criteria (CalEPA, 2005), with the exception of copper. Antimony, chromium, and lead concentrations are generally very low – the metals have not been detected at concentrations greater than screening levels (i.e., Maximum Contaminant Level [MCL; CalEPA, 2007], Preliminary Remediation Goal [PRG; USEPA, 2004], Public Health Goal [PHG; CalEPA, 2007], Ocean Plan [CalEPA, 2005]). Copper concentrations are also generally low (< 3 micrograms per liter [µg/L]), with the exception of a concentration in the sample collected from March 2007 (5.2 µg/L), which was just slightly greater than the Ocean Plan criterion of 3 µg/L. As shown in Figures 5 through 8, antimony, chromium, and lead concentrations in other surface water and groundwater discharged to Soldier Bay were lower than screening levels. These data indicate that detected concentrations of antimony, chromium, copper and lead in sediment, which were only slightly greater than their respective ER-Ls and only in an isolated area, in the vicinity of SP-4.1 are not related to recent seep/groundwater sources.

The other elevated sediment concentration was zinc in the Pond 8 Sed-1A surface sediment sample. The detected concentration of 906 milligrams per kilogram (mg/kg) is greater than both the ER-L and ER-M. As indicated on Figure 9, zinc has been detected in Drainage B (Pond 8 Outfall) in water at concentrations above screening levels but not in other surface water or groundwater discharged to Soldier Bay. Zinc concentrations in the Pond 8 discharge water (Drainage-B [Pond 8 Outfall]) sample collected in March 2007 (24 µg/L) were slightly greater than the Ocean Plan criterion of 20 µg/L. Concentrations on other sample dates were below 4.9 µg/L. Given the low volume but steady discharge associated with Pond 8, surface water discharges from Pond 8, which as discussed above include significant inputs of stormwater from the City of Fort Bragg, may represent a current source of zinc to sediment in a very limited area (i.e., the specific drainage path of Pond 8 discharge through the intertidal area). Furthermore, due to dilution, the discharge is not expected to have significant impact on the surface water in Soldier Bay.

A comparison of the results for sediment sample SP-4.1-Sed1A and metal debris sample SP-4.1-METAL 1 (Table 4), both collected below the discharge point of seep/spring SP-4.1, indicates that the metals detected at elevated levels in sediment at SP-4.1 were not among the metals that were indicated as having leaching

potential, and none of the metals that were indicated as having leaching potential were among the metals that were detected at elevated levels in sediment. These results indicate that metal debris is not the likely source of the limited elevated metal concentrations observed in sediment at location SP-4.1, and even if some leaching from metal debris is occurring, it is not likely to result in elevated levels of those same metals in a localized area of any significant size or magnitude in surface or subsurface sediment. ,.

Summary and Conclusions

Table 3 presents a summary of offshore sediment results including identification of samples with detected concentrations observed to be greater than conservative screening levels (the actual data is presented in Attachment B). As discussed, five metals (i.e., antimony, chromium, copper, lead, and zinc) were detected at concentrations greater than conservative screening levels from a total of three locations. With the exception of zinc near the Pond 8 Drainage B Outfall (where one surface sediment sample had a zinc concentration that was greater than the ER-M) concentrations greater than the ER-L but less than the ER-M were observed. ER-Ls are commonly used as conservative screening levels (i.e., concentrations below which no effects are expected and, therefore, no additional investigation is warranted). NOAA states (in the document *Sediment Quality Guidelines Developed for the National Status and Trends Program*; NOAA, 1999): "The 10th percentile values were named the 'Effects Range-Low', indicative of concentrations below which adverse effects rarely occur." Included in NOAA's Screening Quick Reference Tables (SQuiRTs) is a similar statement: "Since the ERL is at the low end of a range of levels at which effects were observed in the studies compiled, it represents the value at which toxicity may begin to be observed in sensitive species." It is additionally important to remember that ER-Ls and ER-Ms are generic, they do not consider site-specific factors that may alter bioavailability and associated toxicity, and they reflect potential effects from multiple stressors as sediments used contained mixtures of contaminants.

It is also important to consider (as shown in Table 3) that the few instances where sediment concentrations were observed to be greater than ER-Ls, elevated levels of these chemicals in sediment were not observed to be consistent across high intertidal (1A) and low intertidal (1B) locations or across depth strata. In other words, concentrations greater than background and/or ER-Ls appear to be isolated and are not indicative of a general or larger contamination issue. Given the limited spatial area associated with the elevated concentration (i.e., greater than the ER-M) of zinc in sediment in the area of the Pond 8 discharge, it is reasonable to conclude that zinc is

not resulting in any significant or widespread effects to local communities and/or populations of organisms offshore of the site. It is therefore concluded that site-related constituents in sediments do not occur in concentrations that indicate impacts to the offshore environment and additional investigation of sediment is thus not needed.

Where elevated concentrations of constituents (other than zinc near the Pond 8 discharge) in sediment were detected (in the vicinity of SP-4.1), metals leaching from scrap metal, seeps, and surface water discharges are not indicated as sources. Although laboratory leaching studies indicate the potential for some leaching of metals from metal scrap, these results are laboratory derived and do not represent actual or estimated environmental concentrations of metals in the offshore environment but only indicate the potential for leaching. Actual leachate concentrations associated with metal debris in the environment are expected to be substantially lower than those observed in the laboratory study due to the limited contact time any particular volume of water may have with scrap metal debris and the limited distribution of metal in the environment compared to the size and dilution capacity of the receiving system (i.e., the intertidal and subtidal environment). Concentrations of metals in seawater collected at the site were similar to concentrations of metals in seawater collected at reference sites, indicating that leaching of scrap metal is not resulting in measurable differences in metal concentration in seawater near the site. Given the sediment results (which do not indicate impacts) and the nature of the surface water receiving system (i.e., it is a large high-energy system with tremendous capacity for dilution and therefore a high potential for assimilative capacity), metal leaching from scrap metal debris is not expected to affect the overall quality of ocean water or offshore sediments. Given the high-energy nature of the offshore environment, there is likely significant flushing that occurs in the offshore environment, including tide pool environments.

Based on the results obtained from the offshore study, it can be concluded that there is no evidence that significant effects have been or are occurring to the offshore environment in the vicinity of the site.

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Attachments

A Sampling Process, Identification, Analysis, and Data Validation
B Sediment Data Tables
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Sincerely,

ARCADIS

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TABLES

Table 1
Sediment Sample Matrix

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location	Date	Time	Sample ID	Sample Depth (ft bgs)		Analyses								Comments
				Start Depth	End Depth[a]	TPHd/TPHmo by 8015M modified[b]	SVOCs by 8270C	PAHs by 8270-SIM	PCB congeners by 8082	Title 22 Metals by USEPA Method 6010/6020/7470/ 7471	Dioxins/Furans by 8290	Grain size by ASTM Method D442	TOC by USEPA Method 9060	
Intertidal														
Beach Sed 1	07/17/07	1005	Beach Sed 1 0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Beach Sed 1	07/17/07	1010	Beach Sed 1 0.5-1.3	0.5	1.3	●	●	●	●	●	●	●	●	
Pond 6 SED-1A	07/02/07	0936	Pond 6 SED-1A-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Pond 6 SED-1A	07/02/07	0942	Pond 6 SED-1A-0.5-1	0.5	1	●	●	●	●	●	●	●	●	
Pond 6 SED-1B	07/02/07	0926	Pond 6 SED-1B-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Pond 6 SED-1B	07/02/07	0928	Pond 6 SED-1B-0.5-0.7	0.5	0.7	●	●	●	●	●	●	●	●	
Pond 8 SED-1A	07/02/07	1005	Pond 8 SED-1A-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Pond 8 SED-1A	07/02/07	1010	Pond 8 SED-1A-0.5-0.75	0.5	0.75	●	●	●	●	●	●	●	●	
Pond 8 SED-1B	07/02/07	0955	Pond 8 SED-1B-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Pond 8 SED-1B	07/02/07	1000	Pond 8 SED-1B-0.5-0.9	0.5	0.9	●	●	●	●	●	●	●	●	
Soldier Outfall N SED-1A	07/02/07	0812	Soldier Outfall N SED-1A-0-0.5	0	0.5						●			
Soldier Outfall N SED-1A	07/17/07	0805	Soldier Outfall N SED-1A-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
Soldier Outfall N SED-1A	07/02/07	0819	Soldier Outfall N SED-1A-0.5-2	0.5	2						●			
Soldier Outfall N SED-1A	07/17/07	0810	Soldier Outfall N SED-1A-0.5-1.75	0.5	1.75	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
Soldier Outfall N SED-1B	07/02/07	0759	Soldier Outfall N SED-1B-0-0.5	0	0.5						●			
Soldier Outfall N SED-1B	07/17/07	0752	Soldier Outfall N SED-1B-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled. Subsurface sample not collected due to presence of bedrock.
Soldier Outfall S SED-1A	07/02/07	0850	Soldier Outfall S SED-1A-0-0.5	0	0.5						●			
Soldier Outfall S SED-1A	07/17/07	0825	Soldier Outfall S SED-1A-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
Soldier Outfall S SED-1A	07/02/07	0900	Soldier Outfall S SED-1A-0.5-2	0.5	2						●			
Soldier Outfall S SED-1A	07/17/07	0835	Soldier Outfall S SED-1A-0.5-1.8	0.5	1.8	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
Soldier Outfall S SED-1B	07/02/07	0840	Soldier Outfall S SED-1B-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
SP-4.1 SED-1A	07/02/07	0727	SP-4.1 SED-1A-0-0.5	0	0.5						●			
SP-4.1 SED-1A	07/17/07	0720	SP-4.1 SED-1A-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
SP-4.1 SED-1A	07/02/07	0730	SP-4.1 SED-1A-0.5-1.1	0.5	1.1						●			
SP-4.1 SED-1A	07/17/07	0725	SP-4.1 SED-1A-0.5-1.3	0.5	1.3	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
SP-4.1 SED-1B	07/02/07	0720	SP-4.1 SED-1B-0-0.5	0	0.5						●			
SP-4.1 SED-1B	07/17/07	0738	SP-4.1 SED-1B-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
SP-4.1 SED-1B	07/02/07	0722	SP-4.1 SED-1B-0.5-1.2	0.5	1.2						●			
SP-4.1 SED-1B	07/17/07	0742	SP-4.1 SED-1B-0.5-1	0.5	1	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
SB Seep Sed-1	07/02/07	0738	SB Seep Sed-1-0-0.5	0	0.5						●			
SB Seep Sed-1	07/17/07	0652	SB Seep Sed-1-0-0.5	0	0.5	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
SB Seep Sed-1	07/02/07	0740	SB Seep Sed-1-0.5-1.2	0.5	1.2						●			
SB Seep Sed-1	07/17/07	0657	SB Seep Sed-1-0.5-1.1	0.5	1.1	●	●	●	●	●		●	●	07/02/07 shipment to CAS lost. Resampled.
Subtidal														
Bay Sed-1	08/08/07	1000	Bay Sed-1-0-0.5	0	0.5	●	●	●	●	●	●	●	●	Unable to get subsurface core sample.
Bay Sed-2	08/08/07	0938	Bay Sed-2-0-1.5	0	1.5	●	●	●	●	●	●	●	●	Surface core sample collected to 1.5 ft bgs.
Bay Sed-3	08/08/07	0924	Bay Sed-3-0-0.5	0	0.5	●	●	●	●	●	●	●	●	Unable to get subsurface core sample.
Reference														
Ref 1A-SED	07/03/07	0720	Ref 1A-SED-0-0.5	0	0.5	●	●	●	●	●	●	●	●	Subsurface sample not collected due to sloughing.
Ref 1B-SED	07/03/07	0730	Ref 1B-SED-0-0.5	0	0.5	o	o	o	o	o	o	o	o	Hold
Ref 1B-SED	07/03/07	0733	Ref 1B-SED-0.5-1.2	0.5	1.2	o	o	o	o	o	o	o	o	Hold
Ref 2A-SED	07/03/07	0815	Ref 2A-SED-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Ref 2A-SED	07/03/07	0818	Ref 2A-SED-0.5-1.75	0.5	1.75	●	●	●	●	●	●	●	●	
Ref 2B-SED	07/03/07	0820	Ref 2B-SED-0-0.5	0	0.5	o	o	o	o	o	o	o	o	Hold
Ref 2B-SED	07/03/07	0825	Ref 2B-SED-0.5-1	0.5	1	o	o	o	o	o	o	o	o	Hold
Ref 3A-SED	07/03/07	0900	Ref 3A-SED-0-0.5	0	0.5	●	●	●	●	●	●	●	●	No subsurface sample collected; too rocky.
Ref 3B-SED	07/03/07	0905	Ref 3B-SED-0-0.5	0	0.5	o	o	o	o	o	●	o	o	Hold
Ref 3B-SED	07/03/07	0912	Ref 3B-SED-0.5-1	0.5	1	o	o	o	o	o	o	o	o	Hold
Ref 4A-SED	07/03/07	0945	Ref 4A-SED-0-0.5	0	0.5	●	●	●	●	●	●	●	●	
Ref 4A-SED	07/03/07	0948	Ref 4A-SED-0.5-1.1	0.5	1.1	●	●	●	●	●	●	●	●	
Ref 4B-SED	07/03/07	0953	Ref 4B-SED-0-0.5	0	0.5	o	o	o	o	o	o	o	o	Hold
Ref 4B-SED	07/03/07	0955	Ref 4B-SED-0.5-1	0.5	1	o	o	o	o	o	o	o	o	Hold

Notes:

● = Submitted and analyzed
o = submitted but put on hold

a. Subsurface samples were taken to 3 ft bgs or refusal.
b. With gel clean-up.

ASTM = American Society for Testing and Materials
CAS = Columbia Analytical Services
ft bgs = feet below ground surface
PAH = polycyclic aromatic hydrocarbons
PCB = polchlorinated biphenyls

SVOC = semivolatile organic compound
TOC = total organic carbon
TPH = total petroleum hydrocarbons as diesel (TPHd) or motor oil (TPHmo)
USEPA = U.S. Environmental Protection Agency

Table 2
Metal Debris Sample Matrix

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Cluster	Location[a]	Date	Time	Sample ID[b]	Matrix	Container	Field Filter	Analyses		
								Title 22 Metals (Dissolved) - Preleaching[a]	Title 22 Metals (Dissolved) - Postleaching[a]	Leaching with Seawater (TCLP-like tumble)[b]
Metal debris	Soldier Bay near SP-4.1	07/03/07	1222	SP-4-1-Metal-1	metal	ziploc	--	--	--	●
Metal debris	Glass Beach 1	07/03/07	1245	GB1-Metal-1	metal	ziploc	--	--	--	●
Metal debris	Glass Beach 2	07/03/07	1310	GB2-Metal	metal	ziploc	--	--	--	●
Metal debris	Soldier Bay near SP-4.1	07/03/07	1220	SP-4-1-Metal-1	water	carboy	--	--	●	--
Metal debris	Glass Beach 1	07/03/07	1245	GB1-Metal-1	water	carboy	--	--	●	--
Metal debris	Glass Beach 2	07/03/07	1310	GB2-Metal	water	carboy	--	--	●	--
Metal debris	Explosive Beach	07/03/07	1300	EB-Seawater	water	carboy	n	●	--	--

Notes:

Leach tests were conducted on metal debris samples using the seawater collected from Explosive Beach (EB-Seawater). The EB-Seawater sample was filtered by CAS and analyzed for dissolved metals prior to and following the TCLP-like tumble with metal debris samples. Each leaching water sample was given the same name as the metal sample it was tumbled with.

● = Submitted and analyzed
-- = not analyzed or not applicable
n = no

a. Dissolved metals by USEPA Method 6010/6020/7470/ 7742
b. Modified leach test BBL following general US EPA guidelines for common leaching tests but using seawater as extraction fluid

CAS = Columbia Analytical Services
TCLP = Toxicity Characteristic Leaching Procedure

Table 3
Summary of Sediment Screening Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Analytical Group/Analyte	Metals[a]				
Location	**Antimony**	**Chromium**	**Copper**	**Lead**	**Zinc**
Intertidal					
Beach Sed1	--	--	--	--	--
Pond 6 Sed-1A	--	--	--	--	--
Pond 6 Sed-1B	--	--	--	--	--
Pond 8 Sed-1A	--	--	--	--	●
Pond 8 Sed-1B	--	--	--	--	--
SB-Seep-Sed-1	--	--	--	--	--
SO N Sed 1A	--	--	--	--	--
SO N Sed 1B	--	--	--	--	--
SO S Sed 1A	--	--	--	--	--
SO S Sed-1B	--	--	--	--	--
SP-4.1-Sed-1A	o	--	o	o	--
SP-4.1-Sed-1B	--	●	--	--	--
Subtidal					
Bay SED1	--	--	--	--	--
Bay SED2	--	--	--	--	--
Bay SED3	--	--	--	--	--

Notes:
a.. Effects range low (ERL) and median (ERM) (Long et al., 1995) used as screening levels.

● = Concentration in surface sediment sample exceeds ERL.
o = Concentration in subsurface sediment sample exceeds ERL.
-- = Data result did not exceed applied screening levels.
Shaded = Concentration also exceeds ERM.

Table 4
Summary of Metal Debris Leaching Study Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

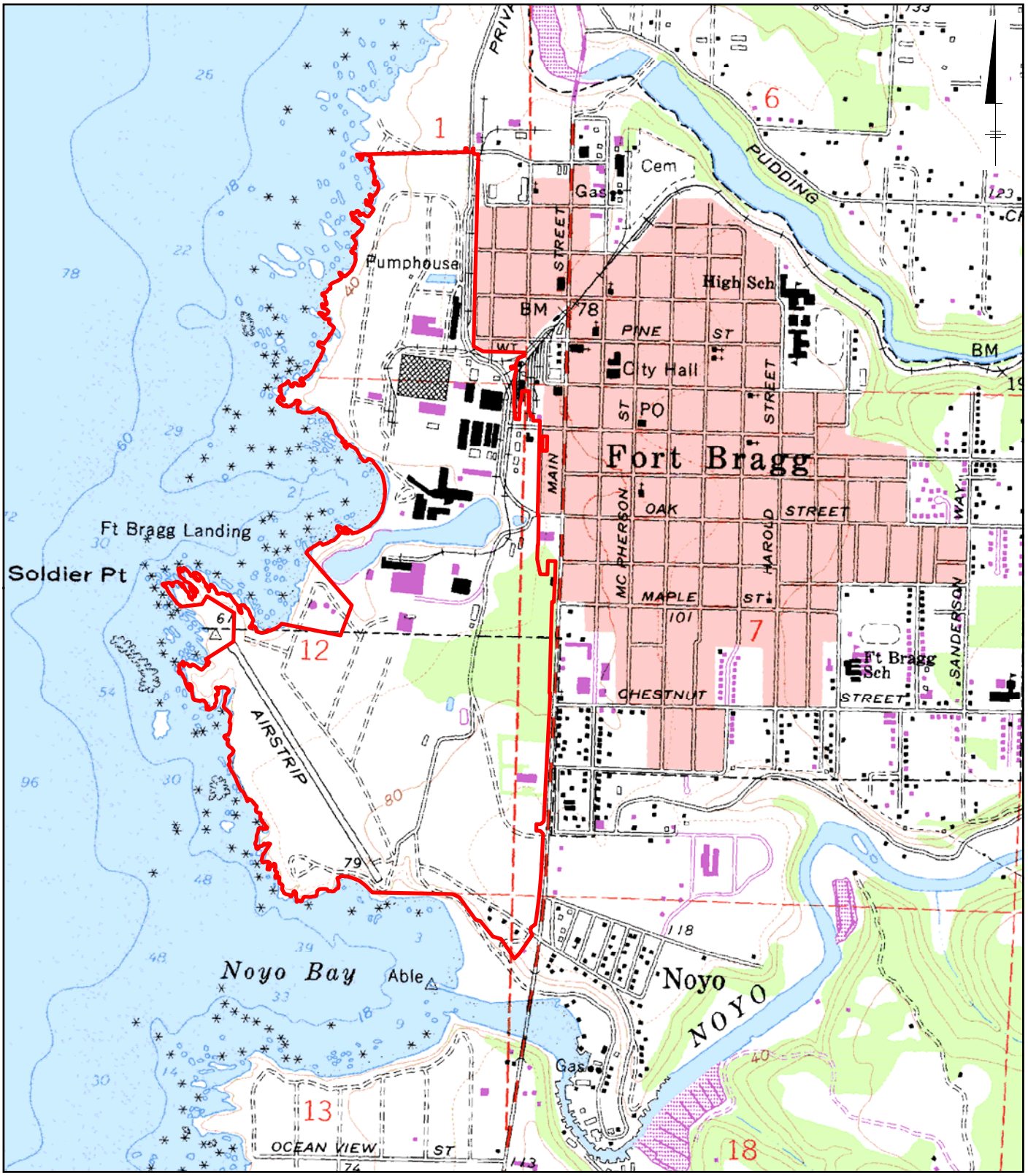
Analyte	EB - Seawater	SP-4.1-METAL-1	GB1-METAL-1	GB2-METAL
Aluminum	0.05 U	0.05 U	0.05 U	0.05 U
Antimony	0.00032 B	**0.00114**	0.00018 U	0.00018 U
Arsenic	0.00096	0.0016 U	0.0022 U	0.00002 U
Barium	0.0088	**0.087**	**0.142**	**0.036**
Beryllium	0.0000004 U	0.0000004 U	**0.0000054** B	0.0000004 U
Cadmium	0.000078	0.000011 B	**0.0076**	**0.029**
Chromium	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Cobalt	0.00026	**0.0053**	**0.114**	**0.0019**
Copper	0.002	0.00032	0.0	**0.0075**
Iron	0.044	**49.2**	**0.272**	**0.093**
Lead	0.000097	**0.000118**	**0.000198**	0.000047
Manganese	0.0044	**1.84**	**3.86**	**0.627**
Mercury	0.00003 U	0.00003 U	0.00003 U	0.00003 U
Nickel	0.00052	**0.0291**	**0.337**	**0.0078**
Selenium	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Silver	0.000004 B	0.000003 B	**0.000015** B	0.000003 B
Thallium	0.000017 B	0.000001 B	0.000 B	0.000008 B
Vanadium	0.0086 B	0.004 U	0.0057 B	0.0081 B
Zinc	0.0041	**0.059**	**33**	**1.22**

Notes:
Data presented for EB - Seawater reflect concentrations in ocean water prior to being used as extraction fluid in metal debris leaching experiment.
All values are shown in mg/L.
Bold values indicate that concentration is greater than ambient (EB) seawater.

B = indicates values with a blank contamination.
U = not detected above the indicated method detection limit.
mg/L = milligram(s) per liter

ARCADIS

FIGURES



LEGEND:

SITE BOUNDARY

0 800 1,600 Feet

GRAPHIC SCALE

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

SITE LOCATION MAP

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FIGURE 1

WC-85 ME [06/05/07 PET-85 EGH]
Project #66111.004
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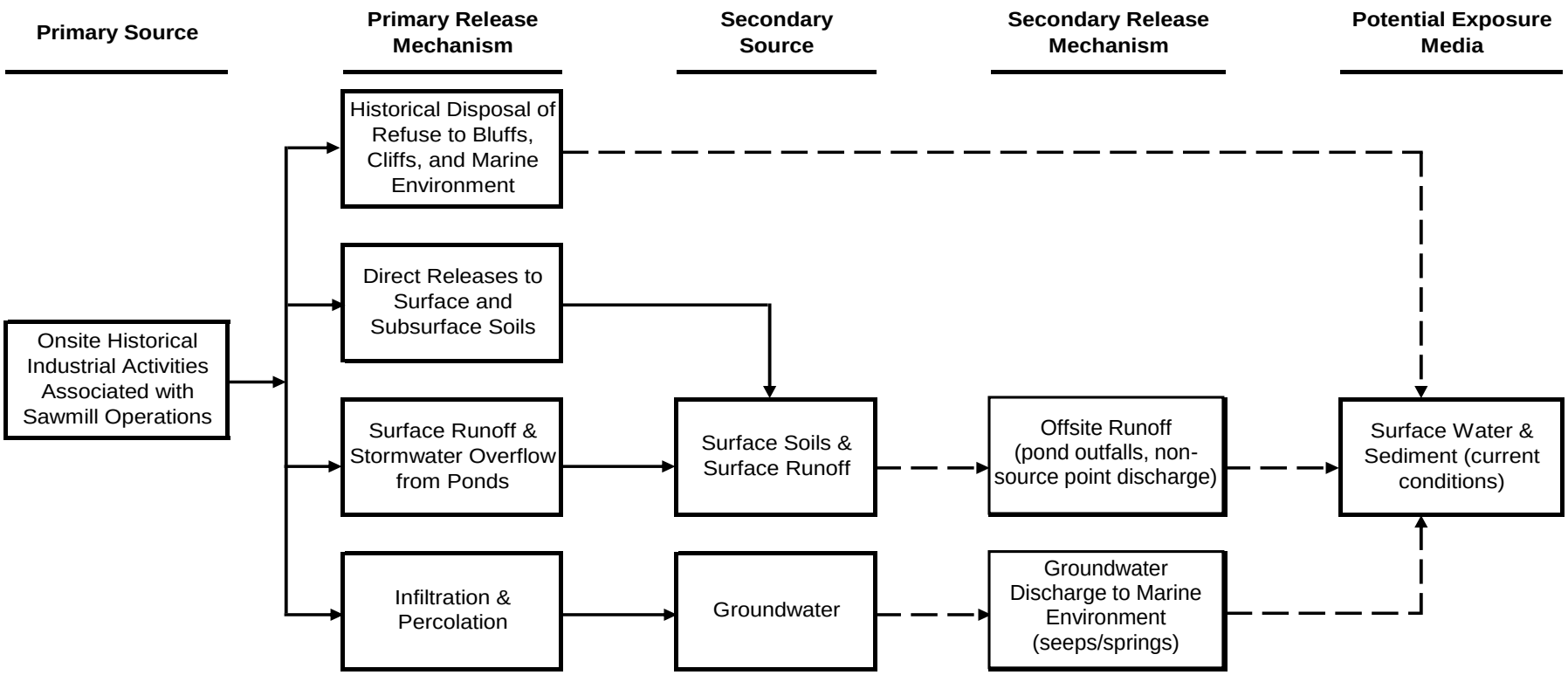


FORMER GEORGIA-PACIFIC WOOD PRODUCT FACILITY
FORT BRAGG, CALIFORNIA

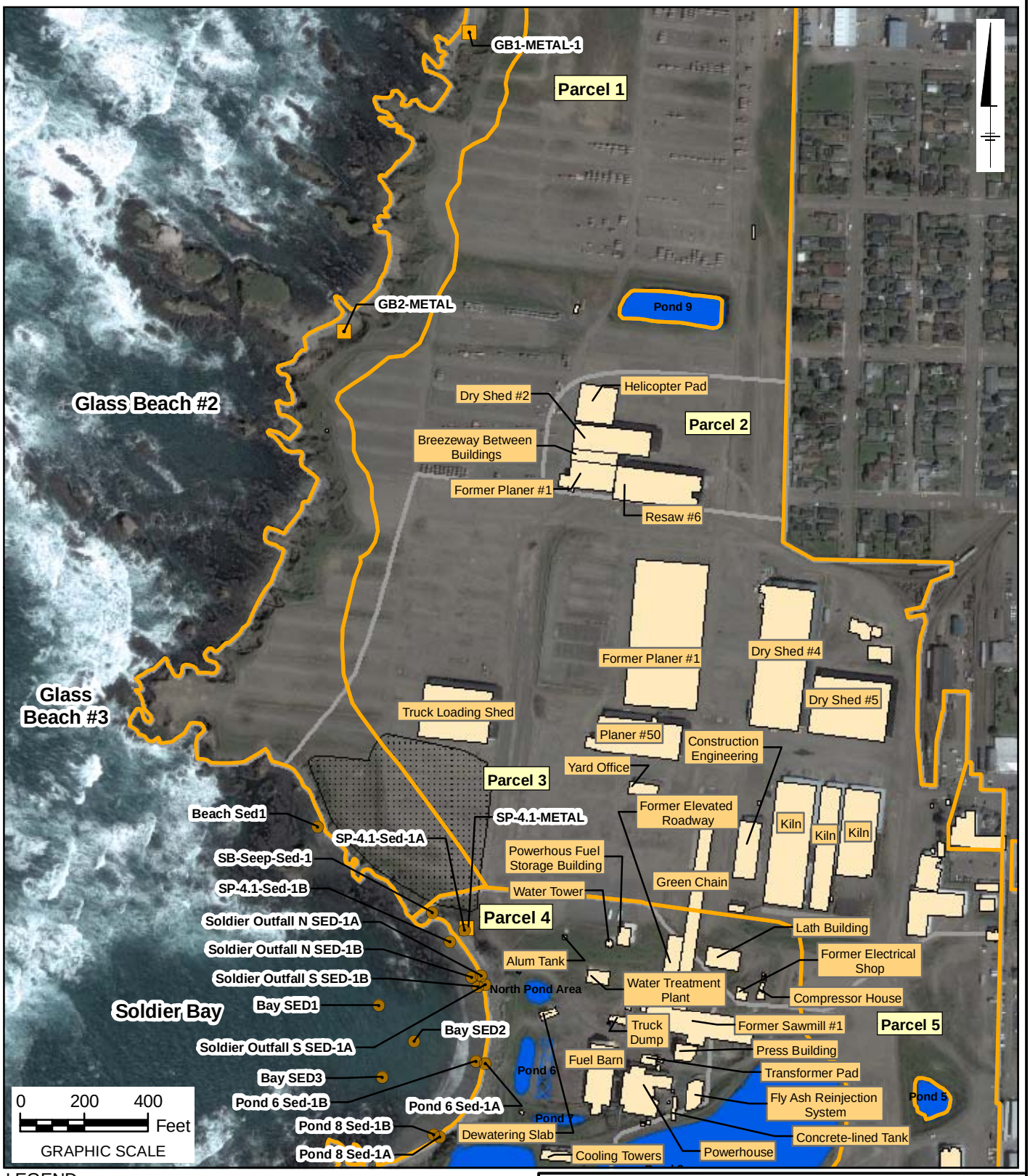
OFFSHORE DATA REPORT

OFFSHORE CONCEPTUAL SITE MODEL

ARCADIS
Infrastructure, environment, facilities

FIGURE 2

ms_073711266 Figure 2_Offshore CSM.xls_Figure 2_3/4/2008



LEGEND:

- SEDIMENT
- METAL
- OPERABLE UNITS BOUNDARY
- GEOPHYSICAL ANOMALY AREA
- STRUCTURE
- FACILITY PARCEL
- POND
- FORMER POND

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

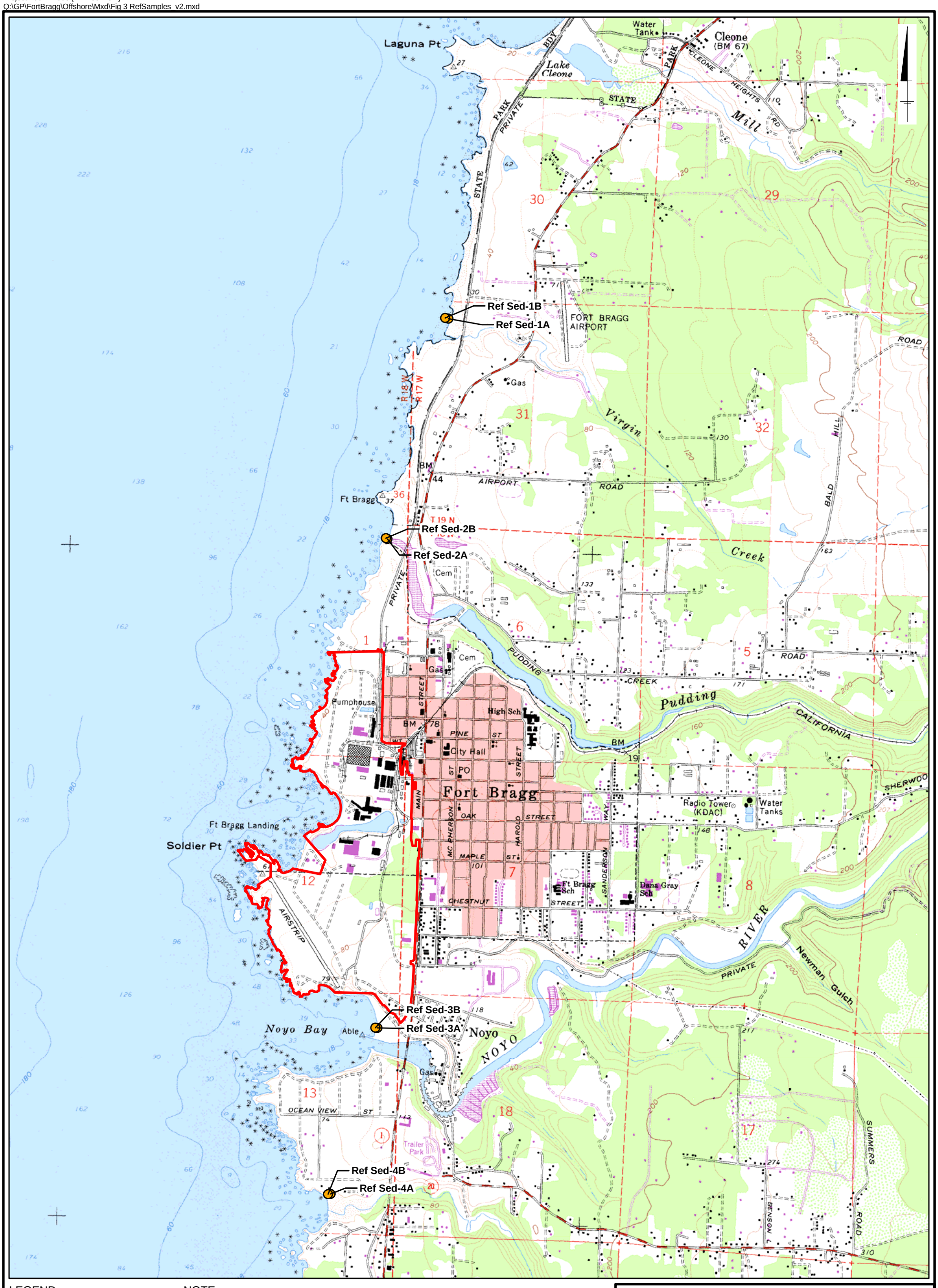
SEDIMENT/METAL DEBRIS SAMPLE LOCATION MAP

ARCADIS

FIGURE 3

SF-85 ME
Project #66111.003
O:\GP\FortBragg\Offshore\Mxd\Fig 3 SedMetalDebrisLocations.mxd - 1/7/2008 @ 11:00:59 AM

09/11/07 PET-85 EGH
Project #66111.003 [PET-85 EGH]
Q:\GP\FortBragg\Offshore\Mxd\Fig 3 RefSamples_v2.mxd



LEGEND:

- SAMPLE LOCATION
- SITE BOUNDARY

NOTE:

1. REF SED-1 – NORTH OF VIRGIN CREEK
   REF SED-2 – NORTH OF PUDDING CREEK
   REF SED-3 – NOYO BAY
   REF SED-4 – NEAR HARE CREEK

0 1,000 2,000 Feet
GRAPHIC SCALE

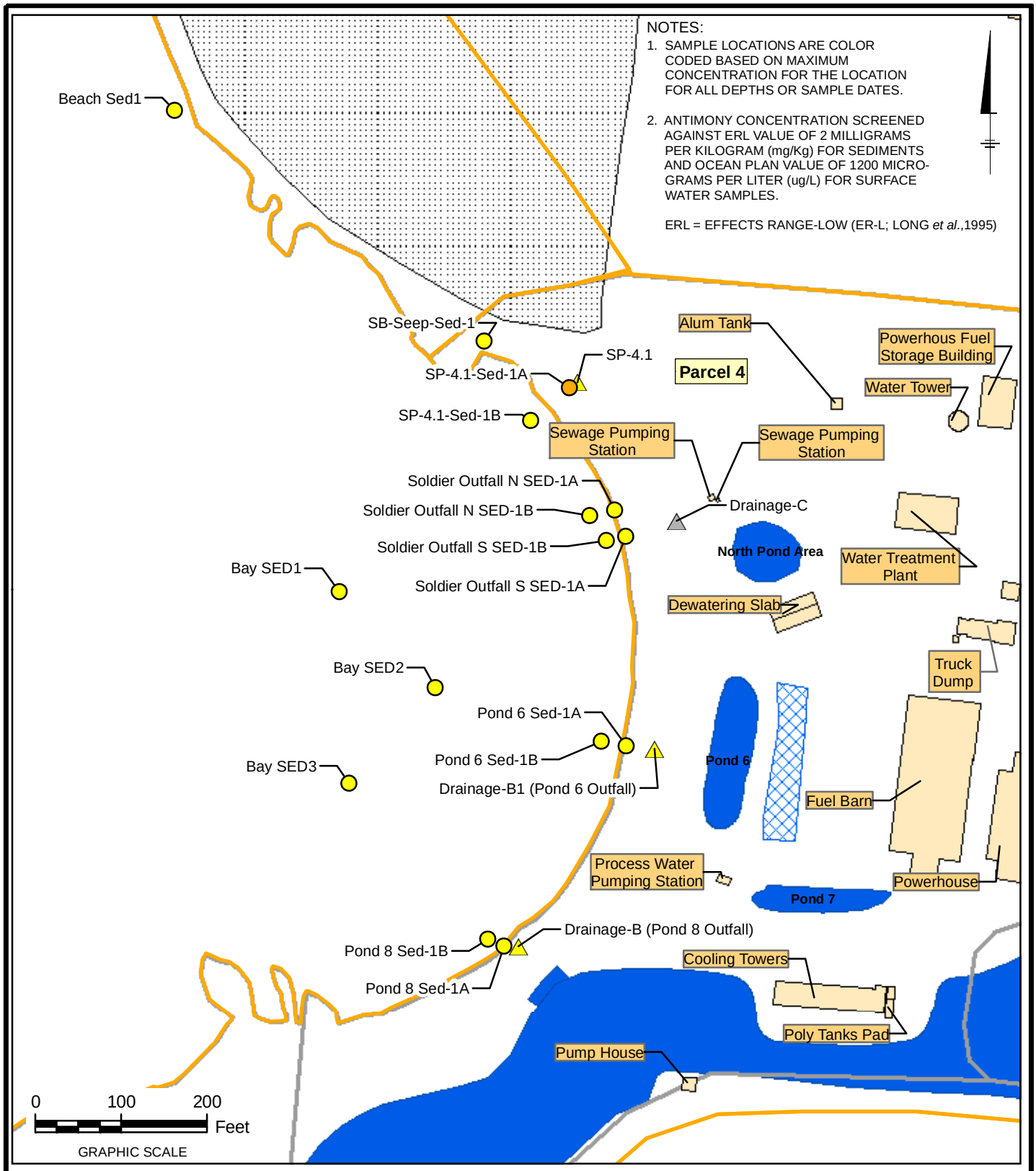
FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

REFERENCE SEDIMENT SAMPLING LOCATIONS

ARCADIS

FIGURE
4



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FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

ANTIMONY CONCENTRATIONS IN SEDIMENT/SURFACE WATER

ARCADIS

FIGURE 5

SF-85 ME
Project #66111.003
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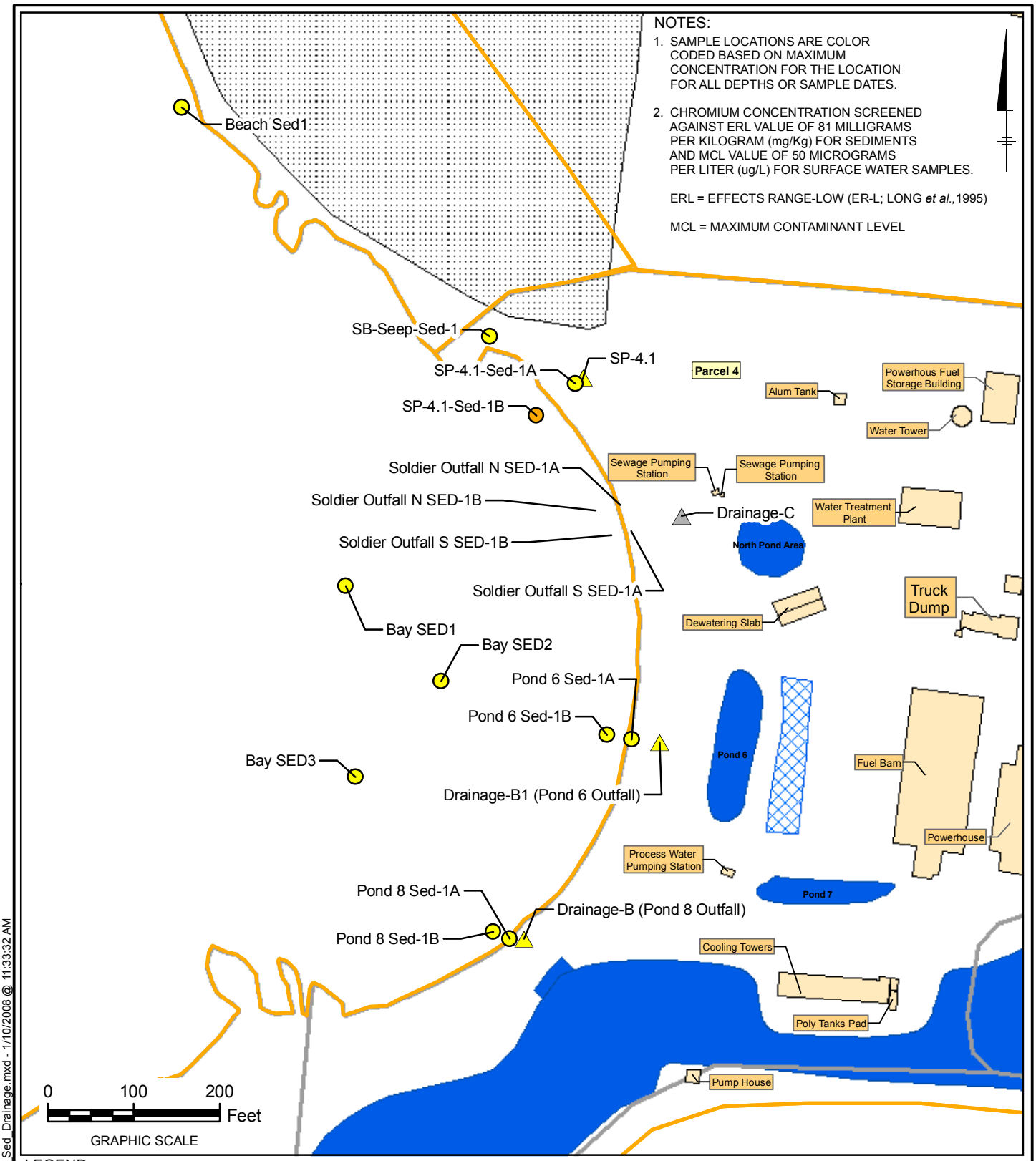

LEGEND:

SEDIMENT	SURFACE WATER
NOT ANALYZED	NOT ANALYZED
NOT DETECTED	NOT DETECTED
BELOW SCREENING LEVEL	BELOW SCREENING LEVEL
ABOVE SCREENING LEVEL	ABOVE SCREENING LEVEL
10 X ABOVE SCREENING LEVEL	10 X ABOVE SCREENING LEVEL

- OPERABLE UNITS BOUNDARY
- GEOPHYSICAL ANOMALY AREA
- STRUCTURE
- FACILITY PARCEL
- POND
- FORMER POND

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

CHROMIUM CONCENTRATIONS IN SEDIMENT/SURFACE WATER

ARCADIS

FIGURE 6

SF-85 ME
Project #66111.003
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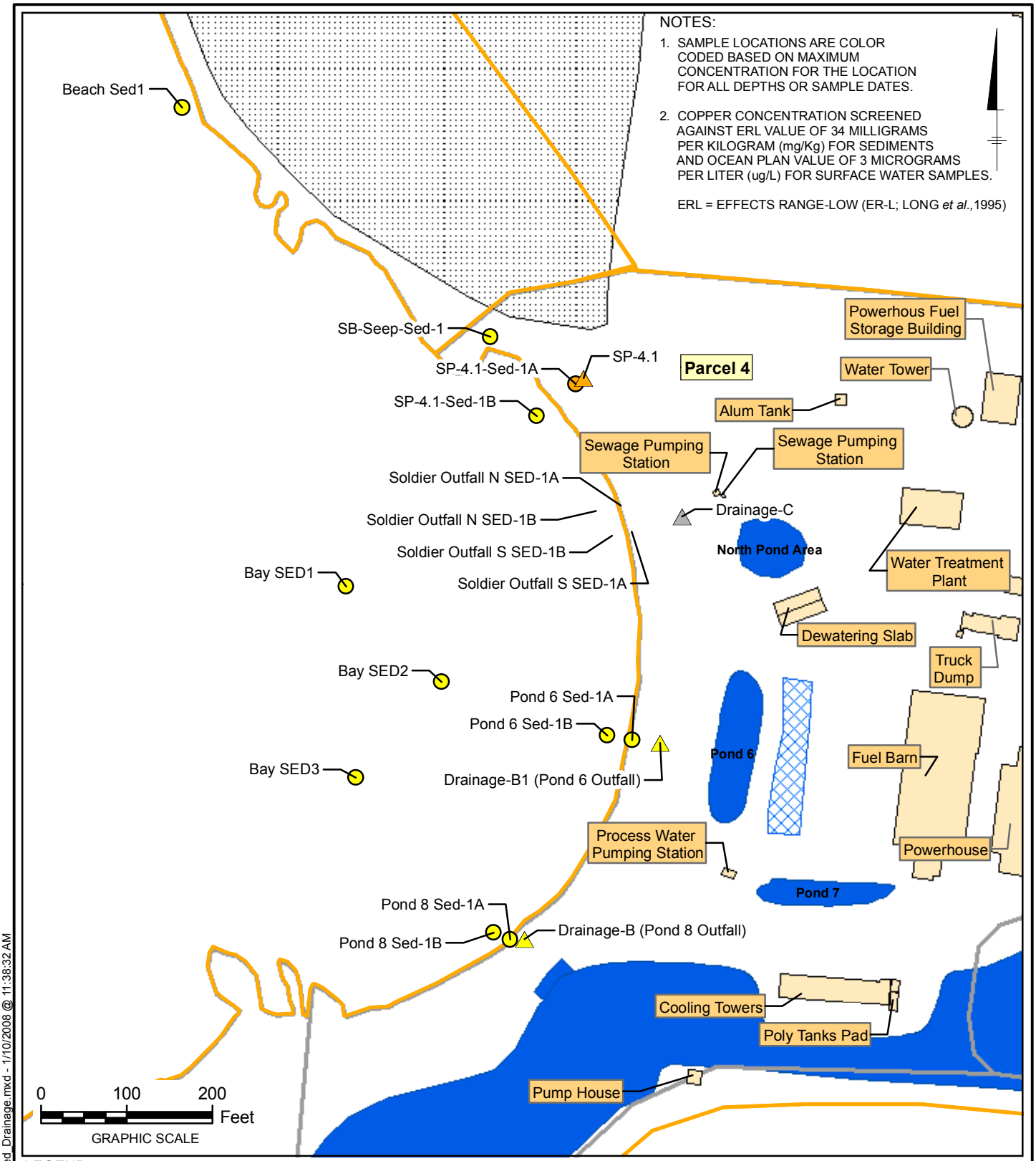

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

COPPER CONCENTRATIONS IN SEDIMENT/SURFACE WATER

ARCADIS

FIGURE 7

SF-85 ME
Project #66111.003
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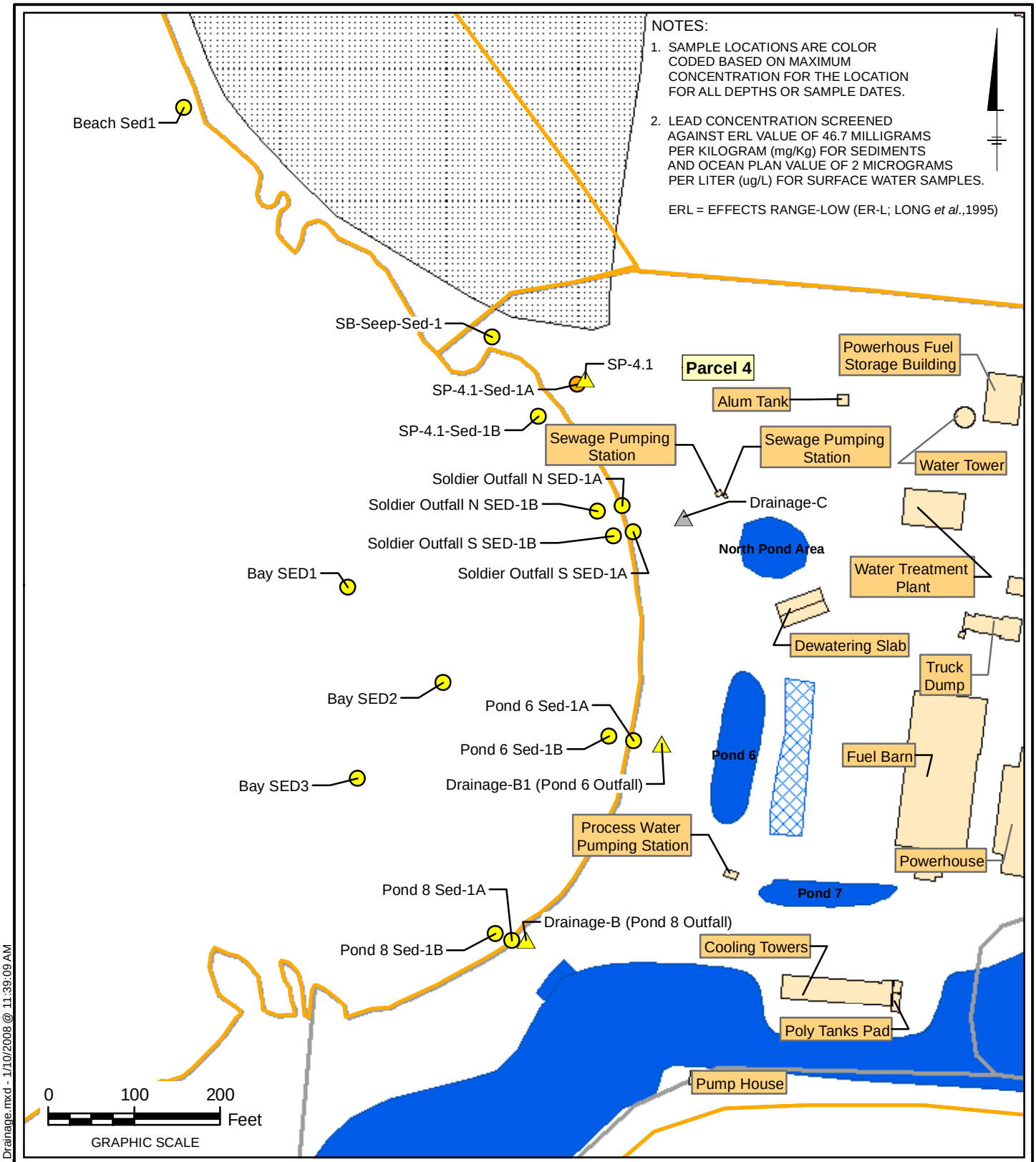

LEGEND:

SEDIMENT	SURFACE WATER
NOT ANALYZED	NOT ANALYZED
NOT DETECTED	NOT DETECTED
BELOW SCREENING LEVEL	BELOW SCREENING LEVEL
ABOVE SCREENING LEVEL	ABOVE SCREENING LEVEL
10 X ABOVE SCREENING LEVEL	10 X ABOVE SCREENING LEVEL

- OPERABLE UNITS BOUNDARY
- GEOPHYSICAL ANOMALY AREA
- STRUCTURE
- FACILITY PARCEL
- POND
- FORMER POND

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

LEAD CONCENTRATIONS IN SEDIMENT/SURFACE WATER

ARCADIS

FIGURE 8

SF-85 ME
Project #66111.003
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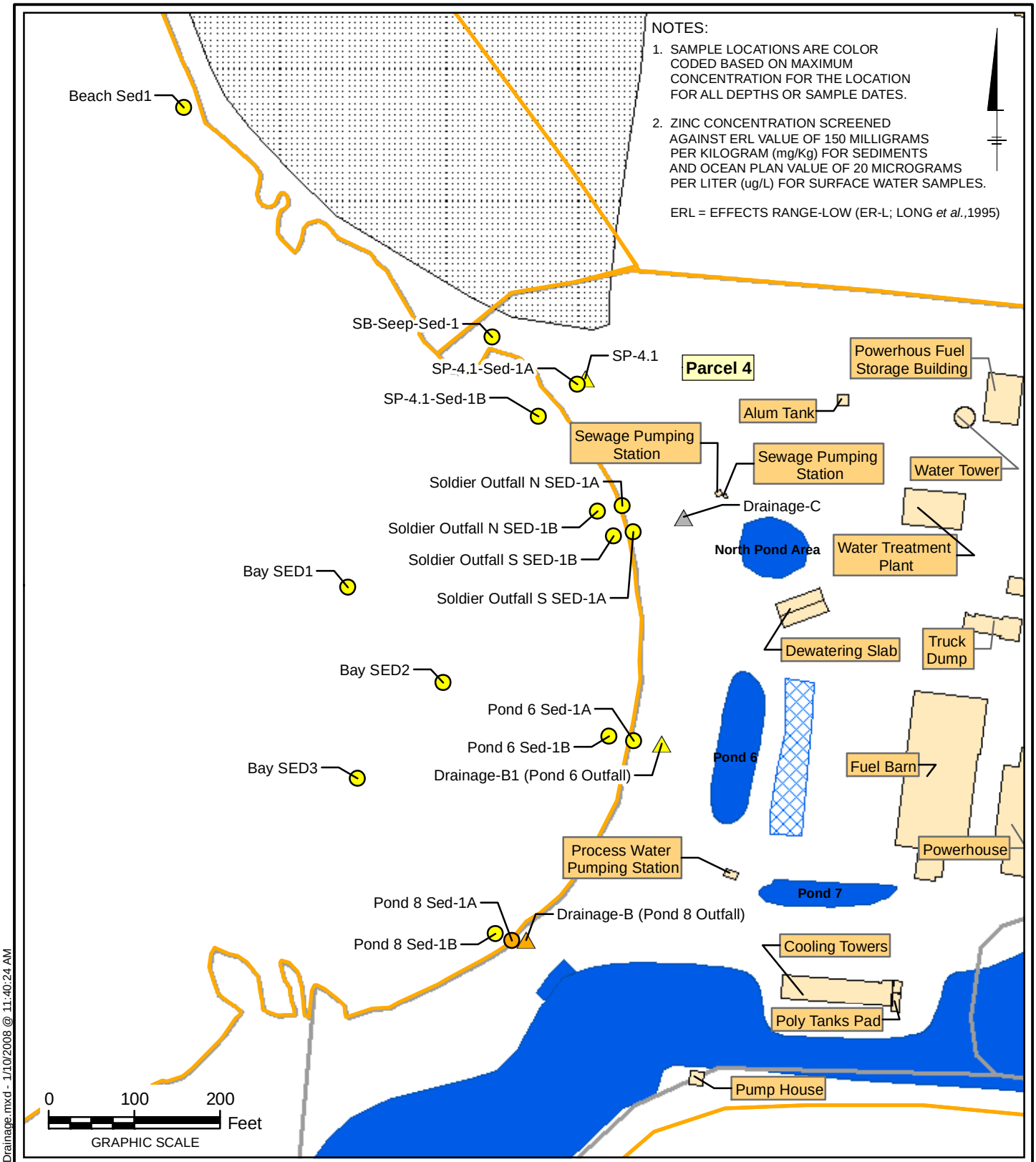

LEGEND:

SEDIMENT	SURFACE WATER
NOT ANALYZED	NOT ANALYZED
NOT DETECTED	NOT DETECTED
BELOW SCREENING LEVEL	BELOW SCREENING LEVEL
ABOVE SCREENING LEVEL	ABOVE SCREENING LEVEL
10 X ABOVE SCREENING LEVEL	10 X ABOVE SCREENING LEVEL

- OPERABLE UNITS BOUNDARY
- GEOPHYSICAL ANOMALY AREA
- STRUCTURE
- FACILITY PARCEL
- POND
- FORMER POND

FORMER GEORGIA-PACIFIC WOOD PRODUCTS FACILITY
FORT BRAGG, CALIFORNIA

OFFSHORE DATA REPORT

ZINC CONCENTRATIONS IN SEDIMENT/SURFACE WATER

ARCADIS

FIGURE 9

SF-85 ME
Project #66111.003
O:\GP\FortBragg\OffshoreMxd\Fig 9 Zinc_Sed_Drainage.mxd - 1/10/2008 @ 11:40:24 AM

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ATTACHMENTS

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Attachment A

Sampling Process, Identification, Analysis, and Data Validation

A.1. Sampling Process Detail

A.1.1 Introduction

This attachment describes the field sampling process employed during data collection pursuant to the Work Plan for Offshore Sediment Sampling (Offshore Work Plan; ARCADIS BBL, 2007a) at the Former Georgia-Pacific Wood Products Facility, Fort Bragg, California (site). Sample identification, laboratory analysis and data validation procedures are also discussed.

A.1.2 Sediment Sampling

Sample locations as proposed in the work plan (ARCADIS BBL, 2007a) were located using a Trimble GPS unit. Intertidal and reference sediment samples were collected using stainless steel spoons. Sediment was collected until the appropriate depth range had been reached or until refusal. For the subtidal sampling, sediment collection was initially attempted using a coring device. Due to the hardness of the sediment at locations Bay Sed-1 and Bay Sed-3, coring was unsuccessful and surface sediment was collected using an Eckman grab sampler.

Collected sediment was placed in a clearly labeled plastic bag and homogenized. During the sediment collection, observations were made of sediment texture and color, the presence of organic matter or oily sheen, and odor. Unusual characteristics were documented in the field notes (Attachment D). Samples were stored on ice and transported to the processing area, where the needed volume was transferred to the appropriate laboratory container as outlined in the QAPP (ARCADIS BBL, 2007b). Containers were then packaged in coolers with ice for transport to the laboratory.

Upon completion of sampling at each location, equipment was decontaminated as outlined in the standard operating procedures (SOP) for field sampling equipment decontamination (ARCADIS BBL, 2007b). In accordance with quality control procedures, an equipment blank was submitted to the laboratory for analysis.

Field notes documenting the sampling process are provided in Attachment D. Photographs are provided in Attachment E.

A.1.3 Metal Debris Sampling

On July 3, 2007, ARCADIS BBL collected three samples of scrap metal debris along the coastline near Fort Bragg, California, where historical dumping occurred. Samples were submitted to Columbia Analytical Services (CAS) under chain of custody. A modified leaching test was developed by ARCADIS BBL and performed by CAS staff to determine the potential for metals to leach into ocean water.

Metal debris was collected from the beach locations and placed in sturdy, labeled, clear plastic bags for transport to the processing area. A carboy was used to collect ocean water at Explosive Beach. The water and sediment samples were shipped in a cooler with ice to the laboratory for analysis.

Field notes documenting the sampling process are provided in Attachment D. Photographs are provided in Attachment E.

A.2. Sample Identification

The sample identification format for the intertidal and subtidal sediment samples was as follows:

m SED-xi-z

The sample identification format for the reference sediment samples was as follows:

m xi-SED-z

where:

m = for intertidal, the name of the associated seep or outfall. For subtidal, the moniker Bay, indicating collection in Soldier Bay. For reference locations, the moniker Ref (Reference).

SED = moniker SED indicating it is a sediment sample.

x = field number indicating the order that the sample falls, either within the range of sediment samples collected at that location and depth (intertidal and reference) or within the Soldier Bay area (subtidal).

i = letter A or B, indicating if the location was at the discharge point (A) or further offshore (B). This is not applicable to subtidal samples.

z = depth range in feet below sediment surface (bss) (e.g., 0 to 0.5).

The sample identification format for the metal debris samples was as follows:

j -Metal-z

where:

j = the name of the area it was collected (i.e., GB for Glass Beach and SP-4.1 for Seep/Spring 4.1).

Metal = moniker Metal indicating it is a metal debris sample.

z = field number indicating the order that the sample falls within the range of samples collected at that location.

A.3. Laboratory Analysis and Data Validation

A.3.1 Sediment Analysis

With the exception of dioxins/furans, analytical services were provided by Columbia Analytical Services (CAS), a laboratory accredited by the California Environmental Protection Agency, Department of Health Services Environmental Laboratory Accreditation Program (ELAP) and certified in the State of California to analyze the constituents of concern by the U.S. Environmental Protection Agency (USEPA) Methods listed in the QAPP (ARCADIS BBL, 2007b). Dioxins/furans, were analyzed by Frontier Analytical. All sediment samples collected were submitted under chain of custody to CAS and analyzed for the following:

- Semivolatile organic compounds (SVOCs) by USEPA Method 8270C
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270-SIM
- Total petroleum hydrocarbons in the diesel and motor oil ranges (TPHd and TPHmo) by USEPA Method 8015 Modified

- Title 22 Metals by USEPA Method 6010/6020/7470/7471, as applicable
- Dioxins/Furans by USEPA Method 8290
- Polychlorinated biphenyl (PCB) congeners by USEPA Method 8082
- Grain size by American Society for Testing and Materials (ASTM) Method D442
- Total organic carbon by USEPA Method 9060.

The laboratory was requested to hold and properly store samples collected from the farther offshore locations (Ref 1B, Ref 2B, Ref 3B and Ref 4B) for the purpose of potential future analysis. The decision to analyze archived sediments would be made on a location-by-location basis, depending on the screening value exceedances observed in the samples from the locations farther from the water line.

Laboratory narratives are provided in Attachment F.

A.3.2 Metal Debris Analysis

The USEPA has developed several methods to determine the leaching characteristics of solid wastes including: the Toxicity Characteristic Leaching Procedure (TCLP), the Synthetic Precipitation Leaching Procedure (SPLP), the Extraction Procedure for Toxicity (EP Toxicity), and the Multiple Extraction Procedure (MEP). The specific test that is required depends on the proposed disposal method for the waste and the anticipated conditions associated with future exposure of the waste. As the purpose of this study was not to characterize scrap metal at the site from a hazardous waste perspective, a modified method was proposed to simulate the potential leaching environment resulting from seawater contacting scrap metal at or below the high tide line (i.e., in the offshore and offsite environment). The modified leaching test proposed by ARCADIS BBL followed the general guidelines established by the USEPA common leaching tests, but used seawater collected from the site as the extraction fluid. A summary of the USEPA common leaching tests and the modified leaching test performed for this investigation are provided in Table A-1.

Following the modified procedure, samples were weighed into two-liter Teflon bottles, and the appropriate amount of seawater was added to the bottle to reach a 20:1 liquid to solid ratio. The samples were tumbled for 18 hours at 21.0 degrees Celsius at a rate of 29.7 revolutions per minute. The samples were then removed from the tumbler and

the extraction fluid was filtered using a 0.45 micrometer (µm) filter. The extraction fluid was analyzed for metals via Title 22 Metals by USEPA Method 6010/6020/7470/7471, as applicable. Laboratory narratives are provided in Attachment F.

A.3.3 Data Validation

Data validation was conducted in accordance with the QAPP (ARCADIS BBL, 2007b). Approximately 10 percent of the sample data was validated by a certified chemist using the USEPA (1999) *Contract Laboratory Program National Functional Guidelines for Organic Data Review* for organic analysis, USEPA (2005) *Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* for dioxin/furan analysis, and the USEPA (2004) *Contract Laboratory Program National Functional Guidelines for Inorganics Data Review* for inorganic compounds. Documentation of the data validation is provided in Attachment G.

A.4. References

ARCADIS BBL.2007a. Work Plan for Offshore Sediment Sampling. Former Georgia-Pacific Wood Products Facility, Fort Bragg, California. ARCADIS BBL. June.

ARCADIS BBL. 2007b. Quality Assurance Project Plan, Former Georgia-Pacific Wood Products Facility, Fort Bragg, California. ARCADIS BBL. March.

USEPA. 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review. OSWER 9240.1-05A-P. PB99-963506. EPA540/R-99/088. U.S. Environmental Protection Agency, Office of Emergency Response, Washington, DC. October.

USEPA. 2004. Contract Laboratory Program National Functional Guidelines for Inorganics Data Review. OSWER 9240.1-45. EPA-540-R-04-004. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation, Washington, DC. October.

USEPA. 2005. Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review. OSWER 9240.1-51. EPA-540-R-05-001. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation, Washington, DC. September.

Table A-1
Summary of Metal Leaching Test Methods

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Method	Typical Method Application	Method Summary/Comparison			
		Extraction Fluid Volume	pH	Shake Time (hours)	Filter Size (µm)
USEPA Method 1310B - EP Toxicity	USEPA Method 1310B was developed to determine the Toxicity Characteristic of Hazardous Wastes. This method has been replaced by the TCLP method.	20 times the weight of the solid material.	5	24	0.45
USEPA Method 1320 - Multiple Extraction Procedure	USEPA Method 1320 is designed to simulate multiple "washings" of a waste by acid rain in an improperly designed landfill. Combines USEPA Method 1310B (EP Toxicity) with multiple washings of the waste.	20 times the weight of the solid material.	3	24	0.45
USEPA Method 1311 - TCLP	TCLP is designed to simulate the leaching of a waste in a sanitary landfill. pH is controlled throughout test.	20 times the weight of the solid material.	3 to 5	18	0.6 to 0.8
USEPA Method 1312 - SPLP	SPLP is designed to determine the mobility of the specific analytes present in wastes. pH is not maintained and may change during the leaching test.	20 times the weight of the solid material.	site-specific (based on region)	18	0.6 to 0.8
Site-Specific Method	Project-specific to determine potential for leaching of soluble metals from metal scrap to offshore environment.	20 times the weight of the solid material.	not measured	18	0.45

Notes:
The seawater pH was not measured for the Site-Specific Method. Typical pH values for seawater are between 7.5 to 8.4.

EP = Extraction Procedure
SPLP = Synthetic Precipitation Leaching Procedure
TCLP = Toxicity Characteristic Leaching Procedure
µm = micrometer(s)
USEPA = U.S. Environmental Protection Agency

ARCADIS

Attachment B

Sediment Data Tables

Table B-1
Metal Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

	Analytes		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead
	Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening Levels	ERL	2	8.2	--	--	1.2	81	--	34	46.7
		ERM	25	70	--	--	9.6	370	--	270	218
	Reference	rMax	0.025	4.73	16.5	0.122	0.038	9.96	2.82	4.51	2.67
Location	**Sample Date**	**Sample Depth**									
Intertidal											
Beach Sed1	07/17/07	0 to 0.5 ft	0.05	5.12	32.9	0.349	0.058	21.2 N	6.13	14.4	6.58
	07/17/07	0.5 to 1.3 ft	0.09	3.9	30.4	0.343	0.043	20.9 N	5.45	13.1	5.91
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	0.06	1.95	36.1	0.073	0.018 B	4.85	1.48	6.05	6.48 *
	07/02/07	0.5 to 1 ft	0.07	1.98	40.5	0.071	0.022	4.78	1.5	6	3.35 *
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	0.04 B	2.12	51.4	0.082	0.022	5.46	1.65	6.53	3.43 *
	07/02/07	0.5 to 0.7 ft	0.09	2.26	43.9	0.088	0.027	6.73	1.79	6.5	5.45 *
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	0.05 B	2.63	43.8	0.109	0.03	7.4	2.21	11.2	3.87 *
	07/02/07	0.5 to 0.75 ft	0.07	2	47.4	0.089	0.034	6.11	1.8	6.49	3.45 *
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	0.07	2.66	66.7	0.101	0.024	6.93	2.1	7.9	4.74 *
	07/02/07	0.5 to 0.9 ft	0.08	2.13	102	0.087	0.026	6.05	1.87	8.03	4.56 *
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	0.47	2.22	33.2	0.12	0.02 B	9.17 N	2.1	8.22	3.87
	07/17/07	0.5 to 1.3 ft	2.07 [ERL]	4.02	118	0.161	0.037	10.5 N	3.56	67.9 [ERL]	49.6 [ERL]
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	0.1	4.48	169	0.185	0.036	199 N [ERL]	4.21	15.6	6.08
	07/17/07	0.5 to 1 ft	0.12	2.48	122	0.148	0.022	9.56 N	3.1	11.8	5.47
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	0.09	3.58	77	0.249	0.044	13.4 N	3.78	15.6	6.57
	07/17/07	0.5 to 1.1 ft	0.2	3.33	50	0.271	0.038	14.7 N	4.81	19.5	7.45
SO N Sed 1A	07/17/07	0 to 0.5 ft	0.14	2.13	54.8	0.139	0.022	7.07 N	2.62	12.5	4.81
	07/17/07	0.5 to 1.75 ft	0.51	2.22	39.9	0.151	0.028	9.9 N	2.6	21.1	5.62
SO N Sed 1B	07/17/07	0 to 0.5 ft	0.07	2.3	59.8	0.153	0.018 B	10.1 N	2.87	9.24	4.5
SO S Sed 1A	07/17/07	0 to 0.5 ft	0.08	2.33	35.7	0.091	0.025	6.04 N	1.62	7.62	4.58
	07/17/07	0.5 to 1.8 ft	0.11	2.17	42	0.091	0.024	6.4 N	1.75	12.7	20.5
SO S Sed-1B	07/02/07	0 to 0.5 ft	1.79	2.48	64.5	0.093	0.038	6.99	2.16	30.6	8.17 *
Subtidal											
Bay SED1	08/08/07	0 to 0.5 ft	0.39	3.2	146	0.224	0.154	14.9	4.72	15.5	4.63
Bay SED2	08/08/07	0 to 1.5 ft	0.24	3.07	92.3	0.434	0.413	16.6	1.71	5.5	5.99
Bay SED3	08/08/07	0 to 0.5 ft	0.14	2.31	208	0.118	<0.056 /U	7.39	2.45	8.9	3.7
Reference											
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.05	3.2	10.2	0.066	0.019 B	5.74	1.25	1.37	2.45 */J
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.05 /U	4.04	10.7	0.071	0.026	5.52	1.3	1.59	2.31 *
	07/03/07	0.5 to 1.75 ft	<0.06 /U	4.73	15	0.082	0.027	6.13	1.47	1.9	2.67 *
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.05	1.64	12.9	0.122	0.019 B	9.96	2.82	4.51	2.27 *
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.05	2.12	13.6	0.084	0.028	5.88	1.67	1.7	1.59 *
	07/03/07	0.5 to 1.1 ft	<0.06	2.27	16.5	0.089	0.038	5.71	1.71	2.17	1.7 *

Notes:
See separate notes page at the front of the appendix.

Table B-1
Metal Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

	Analytes		Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening Levels	ERL	0.15	--	20.9	--	1	--	--	150
		ERM	0.71	--	51.6	--	3.7	--	--	410
	Reference	rMax	0.01	0.1	8.86	0.6	0.046	0.043	14.3	18.2
Location	**Sample Date**	**Sample Depth**								
Intertidal										
Beach Sed1	07/17/07	0 to 0.5 ft	**0.039**	**0.25**	**20.2**	<1	**0.041**	**0.061**	**35.8 N**	**42.9**
	07/17/07	0.5 to 1.3 ft	**0.039**	**0.19**	**17.2**	**0.4 B**	**0.045**	**0.049**	**33.4 N**	**40.9**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	**0.007 B**	**0.11**	**5.14**	<1	**0.019 B**	**0.021**	**8.57**	**10.1**
	07/02/07	0.5 to 1 ft	**0.006 B**	**0.12**	**4.97**	<1.1	**0.018 B**	**0.022**	**8.92**	**10.3**
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	**0.009 B**	**0.12**	**5.97**	<1.1	**0.021**	**0.024**	**9.4**	**12.9**
	07/02/07	0.5 to 0.7 ft	**0.01 B**	**0.11**	**6.5**	<1.1	**0.023**	**0.025**	**10.1**	**13.3**
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	**0.008 B**	**0.22**	**6.86**	**0.4 B**	**0.021 B**	**0.033**	**11.3**	**906 [ERL] [ERM]**
	07/02/07	0.5 to 0.75 ft	**0.01 B**	**0.12**	**6.35**	<1.1	**0.021 B**	**0.027**	**10.1**	**12.7**
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	**0.012 B**	**0.16**	**13.5**	<1.1	**0.024**	**0.03**	**11.7**	**13.9**
	07/02/07	0.5 to 0.9 ft	**0.011 B**	**0.27**	**6.78**	<1.1	**0.036**	<0.023 /U	**10.2**	**12.7**
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	**0.038**	**0.09**	**7.14**	<1.1	<0.021 B/U	**0.021**	**13.1 N**	**16.2**
	07/17/07	0.5 to 1.3 ft	**0.019**	**0.55**	**17.9**	<1.1	**0.037**	**0.021 B**	**16.2 N**	**32.5**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	**0.021**	**1.8**	**14.4**	<1.1	**0.038**	**0.047**	**74.9 N**	**57.5**
	07/17/07	0.5 to 1 ft	**0.023**	**0.19**	**8.89**	<1.1	**0.024**	**0.021**	**17.7 N**	**20.9**
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	**0.022**	**0.21**	**12.5**	<1.1	**0.027**	**0.04**	**21.5 N**	**30.6**
	07/17/07	0.5 to 1.1 ft	**0.04**	**0.18**	**14**	<1.1	**0.053**	**0.044**	**24.7 N**	**33.4**
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.02	**0.11**	**6.85**	<1	**0.025**	**0.022**	**12 N**	**16.5**
	07/17/07	0.5 to 1.75 ft	**0.011 B**	**0.23**	**8.89**	<1.1	**0.211**	**0.02 B**	**15.6 N**	**16.5**
SO N Sed 1B	07/17/07	0 to 0.5 ft	**0.013 B**	**0.14**	**8.9**	<1.1	<0.022 B/U	**0.026**	**17.2 N**	**19.1**
SO S Sed 1A	07/17/07	0 to 0.5 ft	**0.011 B**	**0.12**	**5.82**	<1	**0.051**	**0.031**	**9.91 N**	**12.8**
	07/17/07	0.5 to 1.8 ft	**0.012 B**	**0.2**	**6.13**	<1.2	<0.024 B/U	**0.023**	**10.4 N**	**12.3**
SO S Sed-1B	07/02/07	0 to 0.5 ft	**0.009 B**	**0.24**	**8.28**	<1.1	**0.029**	**0.027**	**10.7**	**14.7**
Subtidal										
Bay SED1	08/08/07	0 to 0.5 ft	**0.021**	**0.2 N**	**15.4 N**	**0.2 B**	**0.025**	**0.034**	**26.2**	**36.7**
Bay SED2	08/08/07	0 to 1.5 ft	**0.051**	**0.46 N**	**7.33 N**	**1 B**	**0.075**	**0.151**	**26.7**	**10.8**
Bay SED3	08/08/07	0 to 0.5 ft	**0.011 B**	**0.22 N**	**8.13 N**	<1.1	**0.02 B**	**0.027**	**12.8**	**17.1**
Reference										
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.019	**0.06 /J**	**6.36**	<1.1	**0.015 B**	<0.021 /U	**7.03**	**8.6**
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.02	**0.08**	**7.17**	<1	**0.046**	<0.02 /U	**6.74**	**7.6**
	07/03/07	0.5 to 1.75 ft	<0.017	**0.1**	**8.47**	<1.2	**0.011 B**	<0.023 /U	**7.26**	**8.3**
Ref Sed-3A	07/03/07	0 to 0.5 ft	**0.009 B**	**0.08**	**8.86**	<1	**0.014 B**	<0.02 /U	**14.3**	**18.2**
Ref Sed-4A	07/03/07	0 to 0.5 ft	**0.006 B**	<0.05 /U	**7.3**	<1.1	**0.011 B**	**0.036**	**7.6**	**9.3**
	07/03/07	0.5 to 1.1 ft	<0.019	**0.06**	**8.2**	<1.2	**0.012 B**	**0.043**	**7.55**	**9.6**

Notes:
See separate notes page at the front of the appendix.

Table B-2
Total Petroleum Hydrocarbon Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	Diesel (C10-C24)	Motor Oil (C24 - C36)
		Units	mg/kg	mg/kg
	Screening	ERL	--	--
	Levels	ERM	--	--
	Reference	rMax	15.5	15.5
Location	Sample Date	Sample Depth		
Intertidal				
Beach Sed1	07/17/07	0 to 0.5 ft	<27 J/U	<27
Beach Sed1	07/17/07	0.5 to 1.3 ft	<26 J/U	**4.9 J**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<26 /U	<26 /U
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<27 /U	<27 /U
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<32 /U	<32 /U
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<33 /U	<33 /U
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<34 /U	<34 /U
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<34 /U	<34 /U
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<32 /U	<32 /U
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<34	<34 /U
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	<27 J/U	**4.2 J**
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<28	**3.8 J**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<27 J/U	**5.1 J**
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<28	<28
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<29 J/U	**5.6 J**
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<29 J/U	**5.0 J**
SO N Sed 1A	07/17/07	0 to 0.5 ft	<26	<26
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<30 J/U	<30
SO N Sed 1B	07/17/07	0 to 0.5 ft	<28	<28
SO S Sed 1A	07/17/07	0 to 0.5 ft	<27 J/U	<27
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<32	<32
SO S Sed-1B	07/02/07	0 to 0.5 ft	<28 /U	<28 /U
Subtidal				
Bay SED1	08/08/07	0 to 0.5 ft	<29 /U	<29
Bay SED2	08/08/07	0 to 1.5 ft	<57 /U	**83 Z**
Bay SED3	08/08/07	0 to 0.5 ft	<30 /U	**3.6 J**
Reference				
Ref Sed-1A	07/03/07	0 to 0.5 ft	<33 /U	<33 /U
Ref Sed-2A	07/03/07	0 to 0.5 ft	<26 /U	<26 /U
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<29 /U	<29 /U
Ref Sed-3A	07/03/07	0 to 0.5 ft	<26 /U	<26 /U
Ref Sed-4A	07/03/07	0 to 0.5 ft	<27	<27
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<31 /U	<31 /U

Notes:
See separate notes page at the front of the appendix.

Table B-3
Polycylic Aromatic Hydrocarbon Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location	Analytes		Sum PAHs	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene
	Units		µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
	Screening Levels	ERL	4022	70	16	44	85_3	261	430
		ERM	33792	670	500	640	1100	1600	1600
	Reference	rMax	7.19	1	2.5	2.5	2.5	2.5	2.5
	Sample Date	Sample Depth							
Intertidal									
Beach Sed1	07/17/07	0 to 0.5 ft	**57.65**	**2.0 J**	**0.52 J**	<2.5	<2.5	**3.7**	**1.1 J**
	07/17/07	0.5 to 1.3 ft	**58.57**	**2.0 J**	**0.44 J**	<2.5	<2.5	**3.8**	**1.2 J**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	**48.6**	**1.6 J**	**1.1 J**	<4.9 /U	**2.1 J**	<4.9 /U	<4.9 /U
	07/02/07	0.5 to 1 ft	**3.45**	**0.93 J**	**0.33 J**	<5.0 /U	**0.60 J**	<5.0 /U	<5.0
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	**2.72**	**0.95 J**	<5.0	<5.0	**0.82 J**	<5.0 /U	<5.0
	07/02/07	0.5 to 0.7 ft	**0.67**	**0.67 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	**1.54**	**0.81 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
	07/02/07	0.5 to 0.75 ft	**29.32**	**0.68 J**	**0.54 J**	<5.0 /U	**3.0 J**	<5.0 /U	<5.0 /U
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	**0.54**	**0.54 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
	07/02/07	0.5 to 0.9 ft	ND	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	**7.03**	**0.52 J**	<2.5	<2.5	<2.5	**0.52 J**	**0.21 J**
	07/17/07	0.5 to 1.3 ft	**14.69**	**1.1 J**	<2.6	<2.6	<2.6	**0.88 J**	**0.29 J**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	**18.92**	**0.88 J**	**0.26 J**	<2.5	<2.5	**1.1 J**	**0.39 J**
	07/17/07	0.5 to 1 ft	**3.84**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	**14.57**	**0.69 J**	<2.5	<2.5	<2.5	**1.0 J**	**0.40 J**
	07/17/07	0.5 to 1.1 ft	**24.46**	**0.74 J**	**0.43 J**	<2.5	<2.5	**1.6 J**	**0.57 J**
SO N Sed 1A	07/17/07	0 to 0.5 ft	**2.21**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	07/17/07	0.5 to 1.75 ft	**2.05**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO N Sed 1B	07/17/07	0 to 0.5 ft	**7.31**	<2.5	**0.27 J**	**0.29 J**	<2.5	**0.54 J**	<2.5
SO S Sed 1A	07/17/07	0 to 0.5 ft	**7.05**	<2.5	<2.5	<2.5	<2.5	**0.69 J**	<2.5
	07/17/07	0.5 to 1.8 ft	**2.68**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed-1B	07/02/07	0 to 0.5 ft	**12.32**	**1.1 J**	**0.72 J**	<5.0 /U	**1.3 J**	<5.0 /U	<5.0
Subtidal									
Bay SED1	08/08/07	0 to 0.5 ft	**6.17**	**0.46 J**	<2.5	<2.5	<2.5	<2.5	**0.24 J**
Bay SED2	08/08/07	0 to 1.5 ft	**17.05**	<2.9	<2.9	<2.9	<2.9	<2.9	**0.75 J**
Bay SED3	08/08/07	0 to 0.5 ft	**2.1**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Reference									
Ref Sed-1A	07/03/07	0 to 0.5 ft	**1.28**	**0.54 J**	<4.9	<4.9	**0.74 J**	<4.9 /U	<4.9
Ref Sed-2A	07/03/07	0 to 0.5 ft	**0.44**	**0.44 J**	<4.9	<4.9	<4.9	<4.9 /U	<4.9 /U
	07/03/07	0.5 to 1.75 ft	**0.53**	**0.53 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
Ref Sed-3A	07/03/07	0 to 0.5 ft	**7.19**	**1.0 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
Ref Sed-4A	07/03/07	0 to 0.5 ft	**0.81**	**0.81 J**	<5.0	<5.0	<5.0	<5.0 /U	<5.0
	07/03/07	0.5 to 1.1 ft	**0.79**	**0.79 J**	<4.9	<4.9	<4.9	<4.9 /U	<4.9

Notes:
See separate notes page at the front of the appendix.

Table B-3
Polycyclic Aromatic Hydrocarbon Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location		Analytes	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene
		Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
	Screening	ERL	--	--	--	384	63_4	--	600
	Levels	ERM	--	--	--	2800	260	--	5100
	Reference	rMax	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	Sample Date	Sample Depth							
Intertidal									
Beach Sed1	07/17/07	0 to 0.5 ft	**2.2 J**	**1.3 J**	<2.5	**7.3**	**0.41 J**	**0.97 J**	**5**
	07/17/07	0.5 to 1.3 ft	**2.4 J**	**1.3 J**	**0.47 J**	**7.7**	**0.40 J**	**0.90 J**	**5.4**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<4.9 /U	<4.9	<4.9	<4.9 /U	<4.9	**2.0 J**	**12**
	07/02/07	0.5 to 1 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	**0.72 J**	<5.0 /U
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<5.0 /U	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
	07/02/07	0.5 to 0.7 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<5.0 /U	<5.0	<5.0 /U	<5.0 /U	<5.0	<5.0	<5.0 /U
	07/02/07	0.5 to 0.75 ft	<5.0 /U	<5.0 /U	<5.0 /U	<5.0 /U	<5.0	<5.0	**6**
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
	07/02/07	0.5 to 0.9 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	**0.34 J**	<2.5	<2.5	**0.71 J**	<2.5	<2.5	<2.5
	07/17/07	0.5 to 1.3 ft	**0.57 J**	<2.6	<2.6	**1.6 J**	<2.6	<2.6	**1.3 J**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	**0.87 J**	**0.77 J**	**0.19 J**	**2.3 J**	**0.36 J**	<2.5	**1.8 J**
	07/17/07	0.5 to 1 ft	**0.32 J**	<2.5	<2.5	**0.77 J**	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	**0.82 J**	<2.5	<2.5	**2.1 J**	<2.5	<2.5	**1.4 J**
	07/17/07	0.5 to 1.1 ft	**0.91 J**	**0.81 J**	<2.5	**2.6**	<2.5	<2.5	**2.3 J**
SO N Sed 1A	07/17/07	0 to 0.5 ft	<2.5	<2.5	<2.5	**0.45 J**	<2.5	<2.5	<2.5
	07/17/07	0.5 to 1.75 ft	<2.5	<2.5	<2.5	**0.34 J**	<2.5	<2.5	<2.5
SO N Sed 1B	07/17/07	0 to 0.5 ft	<2.5	<2.5	<2.5	**0.58 J**	<2.5	**0.78 J**	**1.2 J**
SO S Sed 1A	07/17/07	0 to 0.5 ft	**0.36 J**	<2.5	<2.5	**0.74 J**	<2.5	<2.5	**1.1 J**
	07/17/07	0.5 to 1.8 ft	<2.5	<2.5	<2.5	**0.42 J**	<2.5	<2.5	<2.5
SO S Sed-1B	07/02/07	0 to 0.5 ft	<5.0 /U	<5.0	<5.0	<5.0 /U	<5.0	**1.5 J**	<5.0 /U
Subtidal									
Bay SED1	08/08/07	0 to 0.5 ft	**0.41 J**	<2.5	<2.5	**0.56 J**	<2.5	<2.5	**0.69 J**
Bay SED2	08/08/07	0 to 1.5 ft	**1.9 J**	<2.9	<2.9	**1.1 J**	<2.9	<2.9	**3.5**
Bay SED3	08/08/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Reference									
Ref Sed-1A	07/03/07	0 to 0.5 ft	<4.9 /U	<4.9	<4.9	<4.9 /U	<4.9	<4.9	<4.9 /U
Ref Sed-2A	07/03/07	0 to 0.5 ft	<4.9 /U	<4.9 /U	<4.9 /U	<4.9 /U	<4.9 /U	<4.9	<4.9 /U
	07/03/07	0.5 to 1.75 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
Ref Sed-3A	07/03/07	0 to 0.5 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
Ref Sed-4A	07/03/07	0 to 0.5 ft	<5.0	<5.0	<5.0	<5.0 /U	<5.0	<5.0	<5.0 /U
	07/03/07	0.5 to 1.1 ft	<4.9	<4.9	<4.9	<4.9 /U	<4.9	<4.9	<4.9 /U

Notes:
See separate notes page at the front of the appendix.

Table B-3
Polycylic Aromatic Hydrocarbon Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location		Analytes	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	USEPA B(a)P TEQa
		Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg
	Screening	ERL	19	--	160	240	665	--
	Levels	ERM	540	--	2100	1500	2600	--
	Reference	rMax	0.59	2.5	2.5	5.6	2.5	ND
	Sample Date	Sample Depth						
Intertidal								
Beach Sed1	07/17/07	0 to 0.5 ft	**2.9**	**0.43 J**	**0.92 J**	**23**	**5.9**	**2.1503**
	07/17/07	0.5 to 1.3 ft	**2.4 J**	**0.46 J**	**1.2 J**	**22**	**6.5**	**2.2784**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	**3.8 J**	<4.9	<4.9 /U	**17**	**9**	ND
	07/02/07	0.5 to 1 ft	**0.87 J**	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	**0.95 J**	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
	07/02/07	0.5 to 0.7 ft	<5.0	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	**0.73 J**	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
	07/02/07	0.5 to 0.75 ft	**1.7 J**	<5.0 /U	<5.0 /U	**11**	**6.4**	ND
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<5.0	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
	07/02/07	0.5 to 0.9 ft	<5.0	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	**0.55 J**	<2.5	**0.79 J**	**2.7**	**0.69 J**	**0.29671**
	07/17/07	0.5 to 1.3 ft	**0.73 J**	<2.6	**0.72 J**	**6.2**	**1.3 J**	**0.4366**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	**0.75 J**	**0.45 J**	**1.0 J**	**6.2**	**1.6 J**	**0.9962**
	07/17/07	0.5 to 1 ft	<2.5	<2.5	**0.54 J**	**1.7 J**	**0.51 J**	**0.03277**
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	**0.63 J**	**0.36 J**	**0.67 J**	**5.0**	**1.5 J**	**0.6201**
	07/17/07	0.5 to 1.1 ft	**1.3 J**	<2.5	**0.70 J**	**10**	**2.5 J**	**0.8236**
SO N Sed 1A	07/17/07	0 to 0.5 ft	<2.5	<2.5	**0.56 J**	**1.2 J**	<2.5	**0.00045**
	07/17/07	0.5 to 1.75 ft	<2.5	<2.5	**0.51 J**	**1.2 J**	<2.5	**0.00034**
SO N Sed 1B	07/17/07	0 to 0.5 ft	<2.5	<2.5	**0.65 J**	**2.0 J**	**1.0 J**	**0.05458**
SO S Sed 1A	07/17/07	0 to 0.5 ft	<2.5	<2.5	**0.80 J**	**2.5 J**	**0.86 J**	**0.10574**
	07/17/07	0.5 to 1.8 ft	<2.5	<2.5	**0.65 J**	**1.1 J**	**0.51 J**	**0.00042**
SO S Sed-1B	07/02/07	0 to 0.5 ft	**1.8 J**	<5.0	<5.0 /U	**5.9**	<5.0 /U	ND
Subtidal								
Bay SED1	08/08/07	0 to 0.5 ft	<2.5	<2.5	**0.70 J**	**2.4 J**	**0.71 J**	**0.28156**
Bay SED2	08/08/07	0 to 1.5 ft	<2.9	<2.9 /U	**1.9 J**	**3.6**	**4.3**	**0.9411**
Bay SED3	08/08/07	0 to 0.5 ft	<2.5	<2.5	**0.60 J**	**1.5 J**	<2.5	ND
Reference								
Ref Sed-1A	07/03/07	0 to 0.5 ft	<4.9	<4.9 /U	<4.9 /U	<4.9 /U	<4.9 /U	ND
Ref Sed-2A	07/03/07	0 to 0.5 ft	<4.9	<4.9 /U	<4.9 /U	<4.9 /U	<4.9 /U	ND
	07/03/07	0.5 to 1.75 ft	<5.0	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
Ref Sed-3A	07/03/07	0 to 0.5 ft	**0.59 J**	<5.0	<5.0 /U	**5.6**	<5.0 /U	ND
Ref Sed-4A	07/03/07	0 to 0.5 ft	<5.0	<5.0	<5.0 /U	<5.0 /U	<5.0 /U	ND
	07/03/07	0.5 to 1.1 ft	<4.9	<4.9	<4.9 /U	<4.9 /U	<4.9 /U	ND

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,4,5-Trichlorophenol
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--
	Levels	ERM	--	--	--	--	--
	Reference	rMax	0.005	0.005	0.005	0.005	0.005
Location	**Sample Date**	**Sample Depth**					
Intertidal							
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.01	<0.01
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.01	<0.01	<0.01	<0.01
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009	<0.009	<0.009	<0.009
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.01	<0.01
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.011	<0.011	<0.011	<0.011
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.01	<0.01
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.01	<0.01	<0.01	<0.01
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.01	<0.01	<0.01
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083
Subtidal							
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.01	<0.01
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.012	<0.012	<0.012
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.01	<0.01
Reference							
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.01	<0.01	<0.01	<0.01

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--
	Reference	rMax	0.005	0.005	0.025	0.1	0.005	0.005
Location	Sample Date	Sample Depth						
Intertidal								
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009	<0.045	<0.18	<0.009	<0.009
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.0097	<0.049	<0.2	<0.0097	<0.0097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098	<0.049	<0.2	<0.0098	<0.0098
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096	<0.048	<0.2	<0.0096	<0.0096
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.049	<0.2	<0.0098	<0.0098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.011	<0.051	<0.21	<0.011	<0.011
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.049	<0.2	<0.0098	<0.0098
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083	<0.042	<0.17	<0.0083	<0.0083
Subtidal								
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.057	<0.23	<0.012	<0.012
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01
Reference								
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.049	<0.2	<0.0098	<0.0098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.049	<0.2	<0.0098	<0.0098
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.05	<0.2	<0.0099	<0.0099
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.01	<0.05	<0.2	<0.01	<0.01

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	2-Chloronaphthalene	2-Chlorophenol	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--	--
	Reference	rMax	0.005	0.005	0.005	0.01	0.005	0.05	0.01
Location	**Sample Date**	**Sample Depth**							
Intertidal									
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	**0.0021 J**	<0.02	<0.0099	<0.099	<0.02
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009	<0.009	<0.018	<0.009	<0.09	<0.018
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.0097	<0.0097	<0.02	<0.0097	<0.097	<0.02
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.098	<0.02
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096	<0.0096	<0.02	<0.0096	<0.096	<0.02
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.098	<0.02
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.011	<0.011	<0.021	<0.011	<0.11	<0.021
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.098	<0.02
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083	<0.0083	<0.017	<0.0083	<0.083	<0.017
Subtidal									
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.012	<0.023	<0.012	<0.12	<0.023
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02
Reference									
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.098	<0.02
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.098	<0.02
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02	<0.0099	<0.099	<0.02
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<0.02

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	4,6-Dinitro-2-methylphenol	4-Bromophenyl-phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline
		Units	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--
	Levels	ERM	--	--	--	--
	Reference	rMax	0.05	0.005	0.005	0.005
Location	Sample Date	Sample Depth				
Intertidal						
Beach Sed1	07/17/07	0 to 0.5 ft	<0.1	<0.01	<0.01	<0.01
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.1	<0.01	<0.01	<0.01
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.09	<0.009	<0.009	<0.009
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.1	<0.01	<0.01	<0.01
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.099	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.097	<0.0097	<0.0097	<0.0097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.098	<0.0098	<0.0098	<0.0098
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.096	<0.0096	<0.0096	<0.0096
h	07/17/07	0 to 0.5 ft	<0.098	<0.0098	<0.0098	<0.0098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.11	<0.011	<0.011	<0.011
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.099	<0.0099	<0.0099	<0.0099
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.098	<0.0098	<0.0098	<0.0098
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.099	<0.0099	<0.0099	<0.0099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.1	<0.01	<0.01	<0.01
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.1	<0.01	<0.01	<0.01
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.1	<0.01	<0.01	<0.01
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.083	<0.0083	<0.0083	<0.0083
Subtidal						
Bay SED1	08/08/07	0 to 0.5 ft	<0.1	<0.01	<0.01	<0.010 /U
Bay SED2	08/08/07	0 to 1.5 ft	<0.12	<0.012	<0.012	<0.012
Bay SED3	08/08/07	0 to 0.5 ft	<0.1	<0.01	<0.01	<0.01
Reference						
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.098	<0.0098	<0.0098	<0.0098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.099	<0.0099	<0.0099	<0.0099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.098	<0.0098	<0.0098	<0.0098
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.099	<0.0099	<0.0099	<0.0099
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.1	<0.01	<0.01	<0.01

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	4-Chlorophenyl-phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol	Benzoic Acid	Benzyl Alcohol
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--
	Reference	rMax	0.005	0.005	0.01	0.05	0.1	0.01
Location	Sample Date	Sample Depth						
Intertidal								
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02 J/U
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02 J/U
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009	<0.018	<0.09	<0.18	<0.018 /U
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.020 /U
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	**0.0079 J**	<0.02	<0.097	<0.2	<0.020 /U
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098	<0.02	<0.098	<0.2	<0.020 /U
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096	<0.02	<0.096	<0.2	<0.020 /U
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.02	<0.098	<0.2	<0.02 J/U
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.011	<0.021	<0.11	<0.21	<0.021 J/U
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.02 J/U
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.02 J/U
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.02	<0.098	<0.2	<0.02 J/U
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.02 J/U
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02 J/U
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02 J/U
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.02 J/U
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.02 J/U
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083	<0.017	<0.083	<0.17	<0.017 /U
Subtidal								
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.023	<0.12	<0.23	**0.021 J**
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.02
Reference								
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.02	<0.098	<0.2	<0.020 /U
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.02	<0.098	<0.2	<0.020 /U
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.02	<0.099	<0.2	<0.020 /U
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.01	<0.02	<0.1	<0.2	<0.020 /U

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl)ether	bis(2-Chloroisopropyl)ether	bis(2-Ethylhexyl)phthalate
		Units	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--
	Levels	ERM	--	--	--	--
	Reference	rMax	0.005	0.005	0.005	0.0495
Location	**Sample Date**	**Sample Depth**				
Intertidal						
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	**0.015 J**
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.01	<0.01	**0.0097 J**
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009	<0.009	<0.09
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.1
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.0099	<0.099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.0097	<0.0097	<0.097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.098 /U
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096	<0.0096	<0.096 /U
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.011	<0.011	**0.02 J**
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	**0.0092 J**
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.0099	<0.0099	**0.034 J**
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	**0.0089 J**
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.0099	<0.099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.01	<0.01	**0.017 J**
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.01	<0.01	<0.1
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	**0.0097 J**
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.01	**0.017 J**
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083	<0.0083	<0.083 /U
Subtidal						
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.1
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.012	<0.12
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.01	<0.01	<0.1
Reference						
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.0099	<0.099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.098 /U
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.0099 /U
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.01	<0.01	<0.1 /U

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	Butylbenzylphthalate	Diethylphthalate	Dimethylphthalate	Di-n-Butylphthalate	Di-n-Octylphthalate	Hexachlorobenzene
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--
	Reference	rMax	0.0057	0.00495	0.005	0.016	0.005	0.005
Location	Sample Date	Sample Depth						
Intertidal								
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	**0.0026 J**	<0.01	<0.02 B/UB	<0.01	<0.01
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	**0.032**	<0.01	<0.02 B/UB	<0.01	<0.01
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099 /U	<0.0099	<0.041 B/U	<0.0099	<0.0099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.009 /U	<0.009	<0.032 B/U	<0.009	<0.009
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.010 /U	<0.01	<0.033 B/U	<0.01	<0.01
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.0099	<0.0099	<0.034 B/U	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.0099 /U	<0.0099	<0.039 B/U	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.0097 /U	**0.0017 J**	<0.049 B /U	<0.0097	<0.0097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.0098 /U	<0.0098	<0.037 B/U	<0.0098	<0.0098
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.0096 /U	<0.0096	<0.034 B/U	<0.0096	<0.0096
h	07/17/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.02 BJ/UB	<0.0098	<0.0098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	**0.0046 J**	<0.011	<0.011	<0.021 B/UB	<0.011	<0.011
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	**0.0018 J**	<0.0099	<0.02 B/UB	<0.0099	<0.0099
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	**0.0021 J**	<0.0099	<0.02 B/UB	<0.0099	<0.0099
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	**0.002 J**	<0.0098	<0.02 B/UB	<0.0098	<0.0098
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.0099	<0.0099	<0.02 BJ/UB	<0.0099	<0.0099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	**0.0018 J**	<0.01	<0.02 B/UB	<0.01	<0.01
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	**0.0018 J**	<0.01	<0.02 B/UB	<0.01	<0.01
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	**0.0019 J**	<0.0099	<0.02 B/UB	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.0099	<0.0099	<0.02 B/UB	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.01	<0.01	<0.02 B/UB	<0.01	<0.01
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.0083 /U	<0.0083	<0.034 B/U	<0.0083	<0.0083
Subtidal								
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	**0.0019 J**	<0.01	<0.016 /U	<0.01	<0.01
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.012	<0.012	<0.029 /U	<0.012	<0.012
Bay SED3	08/08/07	0 to 0.5 ft	**0.005 J**	**0.0017 J**	<0.01	<0.023 /U	<0.01	<0.01
Reference								
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098	<0.0098	<0.023 B/U	<0.0098	<0.0098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.0099 /U	<0.0099	<0.031 B/U	<0.0099	<0.0099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.0099	<0.0099	<0.022 B/U	<0.0099	<0.0099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.0098 /U	<0.0098	<0.033 B/U	<0.0098	<0.0098
Ref Sed-4A	07/03/07	0 to 0.5 ft	**0.0057 J**	<0.0099 /U	<0.0099	<0.047 B/U	<0.0099	<0.0099
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.010 /U	<0.01	<0.032 B/U	<0.01	<0.01

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	Nitrobenzene
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--
	Levels	ERM	--	--	--	--	--
	Reference	rMax	0.005	0.025	0.005	0.005	0.005
Location	Sample Date	Sample Depth					
Intertidal							
Beach Sed1	07/17/07	0 to 0.5 ft	<0.01	<0.05	<0.01	<0.01	<0.01
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.01	<0.05	<0.01	<0.01	<0.01
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.009	<0.045	<0.009	<0.009	<0.009
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.01	<0.05	<0.01	<0.01	<0.01
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0097	<0.049	<0.0097	<0.0097	<0.0097
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0098	<0.049	<0.0098	<0.0098	<0.0098
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0096	<0.096	<0.0096	<0.0096	<0.0096
h	07/17/07	0 to 0.5 ft	<0.0098	<0.049	<0.0098	<0.0098	<0.0098
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.011	<0.051	<0.011	<0.011	<0.011
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0098	<0.049	<0.0098	<0.0098	<0.0098
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.01	<0.05	<0.01	<0.01	<0.01
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.01	<0.05	<0.01	<0.01	<0.01
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.01	<0.05	<0.01	<0.01	<0.01
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0083	<0.042	<0.0083	<0.0083	<0.0083
Subtidal							
Bay SED1	08/08/07	0 to 0.5 ft	<0.01	<0.05	<0.01	<0.01	<0.01
Bay SED2	08/08/07	0 to 1.5 ft	<0.012	<0.067	<0.012	<0.012	<0.012
Bay SED3	08/08/07	0 to 0.5 ft	<0.01	<0.05	<0.01	<0.01	<0.01
Reference							
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0098	<0.049	<0.0098	<0.0098	<0.0098
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0098	<0.049	<0.0098	<0.0098	<0.0098
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0099	<0.05	<0.0099	<0.0099	<0.0099
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.01	<0.05	<0.01	<0.01	<0.01

Notes:
See separate notes page at the front of the appendix.

Table B-4
Semivolatile Organic Compound Sediment Results

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

	Analytes		N-Nitrosodimethylamine	N-Nitroso-di-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenol
	Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--
	Levels	ERM	--	--	--	--	--
	Reference	rMax	0.025	0.005	0.005	0.05	0.015
Location	**Sample Date**	**Sample Depth**					
Intertidal							
Beach Sed1	07/17/07	0 to 0.5 ft	<0.05	<0.01	<0.01	<0.1	<0.03 J/U
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.05	<0.01	<0.01	<0.1	<0.03 J/U
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.045	<0.009	<0.009	<0.09	<0.027 /U
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.05	<0.01	<0.01	<0.1	<0.030 /U
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.049	<0.0097	<0.0097	<0.097	<0.029 /U
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.049	<0.0098	<0.0098	<0.098	<0.030 /U
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.048	<0.0096	<0.0096	<0.096	<0.029 /U
h	07/17/07	0 to 0.5 ft	<0.049	<0.0098	<0.0098	<0.098	<0.03 J/U
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.051	<0.011	<0.011	<0.11	<0.031 J/U
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.03 J/U
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.05	<0.0099	<0.0099	<0.099	<0.03 J/U
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.049	<0.0098	<0.0098	<0.098	<0.03 J/U
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.05	<0.0099	<0.0099	<0.099	<0.03 J/U
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.05	<0.01	<0.01	<0.1	<0.03 J/U
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.05	<0.01	<0.01	<0.1	<0.03 J/U
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.03 J/U
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.03 J/U
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.05	<0.01	<0.01	<0.1	<0.03 J/U
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.042	<0.0083	<0.0083	<0.083	<0.025 /U
Subtidal							
Bay SED1	08/08/07	0 to 0.5 ft	<0.05	<0.01	<0.01	<0.1	<0.030 /U
Bay SED2	08/08/07	0 to 1.5 ft	<0.057	<0.012	<0.012	<0.12	<0.034 /U
Bay SED3	08/08/07	0 to 0.5 ft	<0.05	<0.01	<0.01	<0.1	<0.030 /U
Reference							
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.049	<0.0098	<0.0098	<0.098	<0.030 /U
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.049	<0.0098	<0.0098	<0.098	<0.030 /U
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.05	<0.0099	<0.0099	<0.099	<0.030 /U
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.05	<0.01	<0.01	<0.1	<0.030 /U

Notes:
See separate notes page at the front of the appendix.

Table B-5
Polychlorinated Biphenyl Congener Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	SUM PCB Congeners[b]	PCB 101	PCB 105	PCB 114	PCB 118	PCB 123	PCB 126	PCB 128	PCB 138	PCB 153
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	0.0227	--	--	--	--	--	--	--	--	--
	Levels	ERM	0.18	--	--	--	--	--	--	--	--	--
	Reference	rMax	0.00028	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025
Location	Sample Date	Sample Depth										
Intertidal												
Beach Sed1	07/17/07	0 to 0.5 ft	ND	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049
Beach Sed1	07/17/07	0.5 to 1.3 ft	**0.0003 J**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	ND	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	**0.00094 J**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	**0.002 P**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1A	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1B	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed-1B	07/02/07	0 to 0.5 ft	**0.0062**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Subtidal												
Bay SED1	08/08/07	0 to 0.5 ft	ND	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052
Bay SED2	08/08/07	0 to 1.5 ft	ND	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.00084	<0.0006	<0.0006	<0.0006
Bay SED3	08/08/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Reference												
Ref Sed-1A	07/03/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-2A	07/03/07	0 to 0.5 ft	**0.00028 J**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-3A	07/03/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-4A	07/03/07	0 to 0.5 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	ND	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Notes:
See separate notes page at the front of the appendix.

Table B-5
Polychlorinated Biphenyl Congener Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	PCB 156	PCB 157	PCB 167	PCB 169	PCB 170	PCB 18	PCB 180	PCB 187	PCB 189	PCB 195	PCB 206
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--	--	--	--	--	--
	Reference	rMax	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00055	0.00025	0.00025	0.00025
Location	Sample Date	Sample Depth											
Intertidal													
Beach Sed1	07/17/07	0 to 0.5 ft	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049	<0.00049
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047	<0.0009 Ui	<0.00047	<0.00047	<0.00047
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Subtidal													
Bay SED1	08/08/07	0 to 0.5 ft	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052
Bay SED2	08/08/07	0 to 1.5 ft	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.00065	<0.0006	<0.0006	<0.0006
Bay SED3	08/08/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Reference													
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0011 Ui	<0.0005	<0.0005	<0.0005
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Notes:
See separate notes page at the front of the appendix.

Table B-5
Polychlorinated Biphenyl Congener Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	PCB 209	PCB 28	PCB 44	PCB 52	PCB 66	PCB 77	PCB 8	PCB 81
		Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Screening	ERL	--	--	--	--	--	--	--	--
	Levels	ERM	--	--	--	--	--	--	--	--
	Reference	rMax	0.00025	0.00025	0.00025	0.00014	0.00025	0.00025	0.00025	0.00025
Location	Sample Date	Sample Depth								
Intertidal										
Beach Sed1	07/17/07	0 to 0.5 ft	<0.00049	<0.00049 Ui	<0.00049	<0.00049	<0.00049	<0.00049	<0.0006 Ui	<0.00049
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.0005	**0.00015 J**	<0.0005	<0.0005	<0.0005	<0.0005	<0.00065 Ui	<0.0005
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.00047	<0.00047 Ui	<0.00047 Ui	<0.00047	<0.00047	<0.00047	<0.00047	<0.00047
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.00047 J /J**	<0.0005
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.001 P /J**	<0.0005
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1A	07/17/07	0.5 to 1.3 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0 to 0.5 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SP-4.1-Sed-1B	07/17/07	0.5 to 1 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SB-Seep-Sed-1	07/17/07	0 to 0.5 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SB-Seep-Sed-1	07/17/07	0.5 to 1.1 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005
SO N Sed 1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1A	07/17/07	0.5 to 1.75 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO N Sed 1B	07/17/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0 to 0.5 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed 1A	07/17/07	0.5 to 1.8 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005 Ui	<0.0005 Ui	<0.0005	<0.0005	**0.0031 /J**	<0.0005
Subtidal										
Bay SED1	08/08/07	0 to 0.5 ft	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052	<0.00052
Bay SED2	08/08/07	0 to 1.5 ft	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bay SED3	08/08/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001 Ui	<0.0005
Reference										
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005 Ui	<0.0005
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	**0.00014 J**	<0.0005	<0.0005	<0.0005 Ui	<0.0005
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 Ui	<0.0005
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.0005	<0.0005 Ui	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Notes:
See separate notes page at the front of the appendix.

Table B-6
Dioxin Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	USEPA Dioxin TEQ[c]	2,3,7,8-TCDD	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF
		Units	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
	Screening Levels	CCME	0.85						
		NOAA	3.6	--	--	--	--	--	--
		Puget Sound	15	--	--	--	--	--	--
	Reference	rMax	0.0054	0.25	1.25	1.25	1.25	1.25	1.25
Location	Sample Date	Sample Depth							
Intertidal									
Beach Sed1	07/17/07	0 to 0.5 ft	**0.0002937**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Beach Sed1	07/17/07	0.5 to 1.3 ft	**0.000396**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	**0.044344**	<0.5	**0.356 J**	**0.41 J**	<2.5	<2.5	**0.144 J**
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	**0.0002205**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	**0.002834**	<0.5	**0.245 J**	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	**0.0017509**	<0.5	<2.5	**0.148 J**	<2.5	<2.5	<2.5
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	**0.01013**	<0.5	**0.334 J**	**0.634 J**	<2.5	<2.5	<2.5
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	**0.00692**	<0.5	**0.345 J**	**0.266 J**	<2.5	<2.5	<2.5
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	**0.000312**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	**0.004973**	<0.5	**0.449 J**	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1A	07/02/07	0 to 0.5 ft	**0.0002625**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1A	07/02/07	0.5 to 1.1 ft	**0.00355**	<0.5	**0.313 J**	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1B	07/02/07	0 to 0.5 ft	**0.006236**	<0.5	**0.265 J**	**0.322 J**	<2.5	<2.5	<2.5
SP-4.1-Sed-1B	07/02/07	0.5 to 1.2 ft	**0.004336**	<0.5	**0.281 J**	**0.122 J**	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/02/07	0 to 0.5 ft	**0.0002544**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/02/07	0.5 to 1.2 ft	**0.058489**	<0.5	**0.44 J**	**0.865 J**	<2.5	<2.5	**0.228 J**
SO N Sed 1A	07/02/07	0 to 0.5 ft	**0.0019183**	<0.5	<2.5	**0.169 J**	<2.5	<2.5	<2.5
SO N Sed 1A	07/02/07	0.5 to 2 ft	**0.0023981**	<0.5	<2.5	**0.212 J**	<2.5	<2.5	<2.5
SO N Sed 1B	07/02/07	0 to 0.5 ft	**0.000192**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed 1A	07/02/07	0 to 0.5 ft	**0.0002133**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed 1A	07/02/07	0.5 to 2 ft	**0.005988**	<0.5	**0.287 J**	**0.244 J**	<2.5	<2.5	<2.5
SO S Sed-1B	07/02/07	0 to 0.5 ft	**0.0034588**	<0.5	<2.5	**0.319 J**	<2.5	<2.5	<2.5
Subtidal									
Bay SED1	08/08/07	0 to 0.5 ft	ND	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bay SED2	08/08/07	0 to 1.5 ft	**0.093471**	<0.5	**1.53 J**	<2.5	<2.5	<2.5	<2.5
Bay SED3	08/08/07	0 to 0.5 ft	**0.0002385**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Reference									
Ref Sed-1A	07/03/07	0 to 0.5 ft	ND	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-2A	07/03/07	0 to 0.5 ft	**0.0001707**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	**0.0002091**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-3A	07/03/07	0 to 0.5 ft	ND	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-4A	07/03/07	0 to 0.5 ft	ND	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	**0.0001671**	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5

Notes:
See separate notes page at the front of the appendix.

Table B-6
Dioxin Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

		Analytes	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF
		Units	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
	Screening Levels	CCME								
		NOAA	--	--	--	--	--	--	--	--
		Puget Sound	--	--	--	--	--	--	--	--
	Reference	rMax	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Location	**Sample Date**	**Sample Depth**								
Intertidal										
Beach Sed1	07/17/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Beach Sed1	07/17/07	0.5 to 1.3 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<2.5	**0.113 J**	<2.5	<2.5	<2.5	<2.5	**0.106 J**	<2.5
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1A	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1A	07/02/07	0.5 to 1.1 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1B	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SP-4.1-Sed-1B	07/02/07	0.5 to 1.2 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SB-Seep-Sed-1	07/02/07	0.5 to 1.2 ft	<2.5	**0.223 J**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO N Sed 1A	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO N Sed 1A	07/02/07	0.5 to 2 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO N Sed 1B	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed 1A	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed 1A	07/02/07	0.5 to 2 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
SO S Sed-1B	07/02/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Subtidal										
Bay SED1	08/08/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bay SED2	08/08/07	0 to 1.5 ft	<2.5	<2.5	<2.5	**0.511 J**	<2.5	**0.182 J**	<2.5	<2.5
Bay SED3	08/08/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Reference										
Ref Sed-1A	07/03/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-2A	07/03/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-3A	07/03/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-4A	07/03/07	0 to 0.5 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5

Notes:
See separate notes page at the front of the appendix.

Table B-6
Dioxin Sediment Results and Comparison to Screening Levels

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
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	Analytes		2,3,7,8-TCDF	OCDD	OCDF	Total HpCDD	Total HpCDF	Total HxCDD	Total HxCDF	Total PeCDD	Total PeCDF	Total TCDD	Total TCDF
	Units		pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
	Screening Levels	CCME											
		NOAA	--	--	--	--	--	--	--	--	--	--	--
		Puget Sound	--	--	--	--	--	--	--	--	--	--	--
	Reference	rMax	0.25	2.5	2.5	--	--	--	--	--	--	--	--
Location	Sample Date	Sample Depth											
Intertidal													
Beach Sed1	07/17/07	0 to 0.5 ft	<0.5	**0.979 J**	<5	ND	ND	**0.675 J**	ND	ND	ND	ND	ND
Beach Sed1	07/17/07	0.5 to 1.3 ft	<0.5	**1.32 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Pond 6 Sed-1A	07/02/07	0 to 0.5 ft	<0.5	**1.28 J**	<5	**0.705 J**	**0.691 J**	ND	**1.12 J**	ND	ND	ND	**0.532**
Pond 6 Sed-1A	07/02/07	0.5 to 1 ft	<0.5	**0.735 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Pond 6 Sed-1B	07/02/07	0 to 0.5 ft	<0.5	**1.28 J**	<5	**0.598 J**	ND	ND	ND	ND	ND	ND	ND
Pond 6 Sed-1B	07/02/07	0.5 to 0.7 ft	<0.5	**0.903 J**	<5	ND	**0.148 J**	ND	ND	ND	**0.339 J**	ND	ND
Pond 8 Sed-1A	07/02/07	0 to 0.5 ft	<0.5	**1.5 J**	<5	**0.726 J**	**0.634 J**	ND	**0.318 J**	ND	ND	ND	**0.533 D,M**
Pond 8 Sed-1A	07/02/07	0.5 to 0.75 ft	<0.5	**2.7 J**	<5	**0.714 J**	**0.266 J**	ND	**0.283 J**	ND	**0.184 J**	ND	**0.856 D,M**
Pond 8 Sed-1B	07/02/07	0 to 0.5 ft	<0.5	**1.04 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Pond 8 Sed-1B	07/02/07	0.5 to 0.9 ft	<0.5	**1.61 J**	<5	**0.449 J**	ND	ND	ND	ND	ND	ND	ND
SP-4.1-Sed-1A	07/02/07	0 to 0.5 ft	<0.5	**0.875 J**	<5	ND	ND	ND	ND	ND	ND	**0.166 J**	ND
SP-4.1-Sed-1A	07/02/07	0.5 to 1.1 ft	<0.5	**1.4 J**	<5	**0.686 J**	ND	**1.34 J**	ND	**2.38 J**	ND	**6.78**	ND
SP-4.1-Sed-1B	07/02/07	0 to 0.5 ft	<0.5	**1.22 J**	<5	**0.695 J**	**0.322 J**	ND	**0.307 J**	ND	**0.673 J**	ND	**1.18**
SP-4.1-Sed-1B	07/02/07	0.5 to 1.2 ft	<0.5	**1.02 J**	<5	**0.529 J**	**0.122 J**	ND	ND	ND	ND	ND	ND
SB-Seep-Sed-1	07/02/07	0 to 0.5 ft	<0.5	**0.848 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
SB-Seep-Sed-1	07/02/07	0.5 to 1.2 ft	<0.5	**1.13 J**	<5	**0.939 J**	**0.865 J**	ND	**1.62 J**	ND	**1.1 J**	ND	**0.368 J**
SO N Sed 1A	07/02/07	0 to 0.5 ft	<0.5	**0.761 J**	<5	ND	**0.169 J**	ND	ND	ND	ND	ND	ND
SO N Sed 1A	07/02/07	0.5 to 2 ft	<0.5	**0.927 J**	<5	ND	**0.212 J**	ND	**0.146 J**	ND	ND	ND	**0.447 J**
SO N Sed 1B	07/02/07	0 to 0.5 ft	<0.5	**0.64 J**	<5	ND	ND	ND	ND	ND	ND	ND	**0.136 J,M/J**
SO S Sed 1A	07/02/07	0 to 0.5 ft	<0.5	**0.711 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
SO S Sed 1A	07/02/07	0.5 to 2 ft	<0.5	**2.26 J**	<5	**0.622 J**	**0.244 J**	ND	**0.198 J**	ND	ND	ND	ND
SO S Sed-1B	07/02/07	0 to 0.5 ft	<0.5	**0.896 J**	<5	ND	**0.319 J**	ND	**0.173 J**	ND	ND	ND	ND
Subtidal													
Bay SED1	08/08/07	0 to 0.5 ft	<0.5	<5	<5	ND	ND	ND	ND	ND	ND	**0.177 J**	ND
Bay SED2	08/08/07	0 to 1.5 ft	**0.188 J**	**9.37**	<5	**2.34 J**	ND U,*	**1.85 J**	**0.511 J**	**1.57 J,M**	**2.47 J,M**	**2.21**	**18.4 D,M**
Bay SED3	08/08/07	0 to 0.5 ft	<0.5	**0.795 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Reference													
Ref Sed-1A	07/03/07	0 to 0.5 ft	<0.5	<5	<5	ND	ND	ND	ND	ND	ND	ND	ND
Ref Sed-2A	07/03/07	0 to 0.5 ft	<0.5	**0.569 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Ref Sed-2A	07/03/07	0.5 to 1.75 ft	<0.5	**0.697 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND
Ref Sed-3A	07/03/07	0 to 0.5 ft	<0.5	<5	<5	ND	ND	ND	ND	ND	ND	ND	ND
Ref Sed-4A	07/03/07	0 to 0.5 ft	<0.5	<5	<5	ND	ND	ND	ND	ND	ND	ND	ND
Ref Sed-4A	07/03/07	0.5 to 1.1 ft	<0.5	**0.557 J**	<5	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
See separate notes page at the front of the appendix.

Attachment B
Notes for All Data Summary Tables in Attachment B

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Detects shown in bold

X/X after result = Data qualifiers. The first qualifier was added by the laboratory and the second during data validation. If there is only a laboratory qualifier, it is shown without a slash after, for example, J. If there is only a data validation qualifier, it is shown with a slash before, for example, /U.

a. Calculated using the toxicity equivalency factors (TEFs) presented in the Region 4 Guidance for PAH toxicity assessment (USEPA, 2000).
b. Sum PCB congeners is the total of the reported congeners, times two.
c. Calculated using WHO 2005 (Van den Berg, et al. 2006) TEFs. Non-detects excluded.

*	=	Duplicate analysis not within control limits.
[ ]	=	Detected concentration exceeds the screening level indicated within the brackets.
B	=	Analyte was found in associated method blank at a level that is significant relative to the sample result.
B(a)P	=	benzo(a)pyrene
CCME	=	Canadian Council of Ministers of the Environment (CCME) Sediment Quality Guidelines for the Protection of Aquatic Life (CCME, Update 2002)
D	=	possible diphenyl ether interference
ERL	=	effects range low (Long et al., 1995)
ERM	=	effects range median (Long et al., 1995)
ft	=	foot/feet
GC	=	gas chromatograph
HpCDD	=	heptachlorodibenzo-*p*-dioxin
HpCDF	=	heptachlorodibenzofuran
HxCDD	=	hexachlorodibenzo-*p*-dioxin
HxCDF	=	hexachlorodibenzofuran
HPLC	=	high performance liquid chromatography
i	=	MRL/MDL elevated due to matrix interference
J	=	estimated concentration
M	=	reported concentration is the estimated maximum
MRL/MDL	=	method reporting limit (MRL) / method detection limit (MDL)
mg/kg	=	milligram(s) per kilogram
N	=	matrix spike sample recovery is not within control limits
ND	=	not detected
NOAA	=	National Oceanic and Atmospheric Administration (NOAA) apparent effects threshold for 2,3,7,8-TCDD in marine sediment (Buchman, M.F. 1999) Updated February 2004. Available at: http://response.restoration.noaa.gov/book_shelf/122_squirt_cards.pdf
OCDD	=	octachlorodibenzo-*p*-dioxin
OCDF	=	octachlorodibenzofuran
P	=	The GC or HPLC confirmation criteria was exceeded. The RPD is greater than 40% between the two analytical results
PAH	=	polycyclic aromatic hydrocarbon

Attachment B
Notes for All Data Summary Tables in Attachment B

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

PCB	=	polychlorinated biphenyl
PeCDD	=	pentachlorodibenzo-*p*-dioxin
PeCDF	=	pentachlorodibenzofuran
pg/g	=	picogram(s) per gram
Puget Sound	=	Sediment Quality Guideline from the Washington Dredged Material Management Plan (Wenning et al., 2004)
rMax	=	Maximum detected concentration in reference dataset, using the average of one half the detection limit for non-detected analytes.
RPD	=	relative percent difference
TCDD	=	tetrachlorodibenzo-*p*-dioxin
TCDF	=	tetrachlorodibenzofuran
TEQ	=	toxic equivalent
U	=	Indicates values below the method detection limit.
µg/kg	=	microgram(s) per kilogram
USEPA	=	U.S. Environmental Protection Agency
Z	=	Chromatographic fingerprint does not resemble a petroleum product.

References:

Buchman, M.F. 1999. NOAA Screening Quick Reference Tables, NOAA HAZMAT Report 99-1, Seattle, WA, Coastal Protection and Restoration Division, National Oceanic Atmospheric Administration. Update 2004. Available at: http://response.restoration.noaa.gov/book

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Attachment C

Surface Water Data Tables

Table C-1
Dissolved Metals Detected in Seeps/Springs Discharging to Soldier Bay

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

	Date Collected	Antimony	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Vanadium	Zinc
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Screening Levels	MCL	6	10	1000	50	--	1000	15	100	50	--	5000
	PHG	20	0.004	2000	--	--	170	2	12	--	--	--
	PRGtw	15	0.0071	2600	55000	730	1500	--	730	180	36	11000
Location	OP	1200	8	--	190000	3.1	3	2	5	15	--	20
SP-4.1	05/16/06	<1	**1.6 [PHG] [PRGtw]**	**30**	**2.6**	**1.1**	**2.9**	<1	**1.5**	<1	**8.6**	**5.5**
	09/14/06	<1.0	**2.2 [PHG] [PRGtw]**	**29**	<1.0	**0.48 J/J**	**2.8**	**0.19 J/J**	**1.8**	**0.48 J/J**	**0.39 J/J**	<5.0
	12/06/06	**0.25 J**	<1.0	**30**	<1.0	**0.43 J**	**1.8**	<1.0	<1.0	<1.0	<1.0	<5.0 J
	03/07/07	<1.0 J	<1.0	**33**	<1.0 J	<1.0	**5.2 [OP]**	<1.0 J	<1.0 J	<1.0	**2.6**	**6.1**
	06/11/07	**0.10 J**	**0.69 J [PHG] [PRGtw]**	**38**	**0.68 J**	**0.91 J**	<1.0	**0.13 J**	**0.69 J**	<1.0	**0.83 J**	**5.8**

Table C-2
Dissolved Metals Detected in Drainages Discharging to Soldier Bay

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location	Date Collected	Antimony	Arsenic	Barium	Cadmium	Chromium	Cobalt	Copper	Lead
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
POND 8 OUTFALL									
Drainage-B	04/03/06	<1	<1	**32**	<1	<1	<1	**1.1**	<1
	03/09/07	**0.24 J**	**1.7**	**51**	<1.0	<1.0	**0.23 J**	<1.0	**0.14 J**
	06/13/07	**0.12 J [<1.0]**	**0.65 J [0.77 J]**	**45 [46]**	<1.0 [<1.0]	**0.25 J [0.33 J]**	**0.24 J [0.23 J]**	**0.41 J [0.51 J]**	**0.18 J [<1.0]**
POND 6 OUTFALL									
Drainage-B1	07/12/06	<1	<1	**530**	<1	<1	<1	<1	<1
	03/09/07	**0.37 J [0.27 J]**	**0.96 J [1.1]**	**130 [51]**	<1.0 [<1.0]	<1.0 [<1.0]	**0.24 J [0.24 J]**	<1.0 [<1.0]	<1.0 [<1.0]
	06/13/07	**0.19 J**	**1.3**	**400**	**0.071 J**	**0.39 J**	**0.29 J**	**0.84 J**	**0.29 J**

Table C-2
Dissolved Metals Detected in Drainages Discharging to Soldier Bay

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Location	Date Collected Unit	Molybdenum µg/L	Nickel µg/L	Selenium µg/L	Thallium µg/L	Vanadium µg/L	Zinc µg/L
POND 8 OUTFALL							
Drainage-B	04/03/06	**3.2**	<1	<1	<1	<1	**4.9**
	03/09/07	**3.6**	**0.98 J**	<1.0	<1.0	**2.8**	**24**
	06/13/07	**1.1 [1.1]**	**0.64 J [0.47 J]**	<1.0 [<1.0]	**0.056 J [0.034 J]**	**0.91 J [1.4]**	**3.1 J [7.1]**
POND 6 OUTFALL							
Drainage-B1	07/12/06	**3.6**	<1	<1	<1	<1	**12**
	03/09/07	**6.1 [3.6]**	**2.1 [0.97 J]**	<1.0 [<1.0]	<1.0 [<1.0]	**2.7 [2.0]**	**13 [19]**
	06/13/07	**3.1**	**1.6**	**0.18 J**	**0.022 J**	**2.4**	**12**

Attachment C
Notes for All Tables in Attachment C

Offshore Data Report
Former Georgia-Pacific Wood Products Facility
Fort Bragg, California

Notes:
Detects shown in **bold.**
^ = The spring in parcel 3 (SP-3.1) does not discharge to surface water. Therefore data from this location were not compared to OP screen criteria.
X/X after result = Data qualifiers. The first qualifier was added by the laboratory and the second during data validation. If there is only a laboratory qualifier, it is shown without a slash after, for example, J. If there is only a dta validation qualifier, it is shown with a slash before, for example, /U.
Results for duplicate samples are shown in parentheses "[ ]" next to the primary sample.
[ ] = Detected concentration exceeds the screening level indicated with the brackets.

J = estimated concentration
MCL = Maximum Contaminant Level
OP = Ocean Plan
PHG = Public Health Goal
PRGtw = Preliminary Remediation Goal - tap water
µg/L = microgram(s) per liter