# APPENDIX I-10

*2012 Groundwater Monitoring Report*

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February 8, 2013

Misty Kaltreider, PG, CEG
Solano County
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533

**Re: Transmittal of Quarterly Groundwater Monitoring Report**
**Leasehold Property, Former Flour Mill Facility**
**800 Derr Street, Vallejo**

Dear Ms. Kaltreider:

Attached is the *Fourth Quarter 2012 Groundwater Monitoring Report, Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California, February 2013*. Malcolm Pirnie, Inc. submits the attached report on behalf of General Mills Operations, Inc. (General Mills) for your review, in accordance with the requirements set forth in Solano County Department of Resource Management's June 18, 2009 and April 13, 2012 letters to General Mills.

If you have questions or comments regarding the attached report, you may reach me by phone at (925) 296-7856 or by email at todd.miller@arcadis-us.com.

Sincerely,

**MALCOLM PIRNIE, INC.**

Todd Miller, CHG
Project Manager

Attachment: Report

c: Larry Deeney, General Mills Operations, Inc.
Steve England, City of Vallejo
File (2626013/6400)

**General Mills Operations, Inc.**

Number One General Mills Boulevard • Golden Valley, Minnesota

# Fourth Quarter 2012 Groundwater Monitoring Report

## Leasehold Property
## Former Flour Mill Facility
## 800 Derr Street, Vallejo, California

February 2013


Report Prepared By:

**Malcolm Pirnie, Inc.**

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MALCOLM PIRNIE

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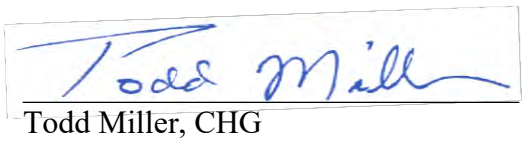
**800 DERR STREET**
**VALLEJO, CALIFORNIA**

**February 8, 2012**

Prepared by:



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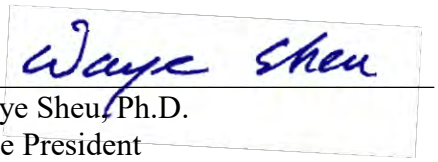

Waye Sheu, Ph.D.
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# 1. Introduction

This Fourth Quarter 2012 Groundwater Monitoring Report (Report) was prepared on behalf of General Mills Operations, Inc. (General Mills) for the Leasehold Property portion of the Former Flour Mill Facility (Site) located at 800 Derr Street in Vallejo, California (Figure 1). This Report is being submitted per the requirements of Solano County Department of Resources Management (SCDRM) as set forth in their June 18, 2009 and April 13, 2012, letters to General Mills, as well as the SCDRM's approval of the groundwater monitoring program changes described in Malcolm Pirnie's June 25, 2012 letter. This Report presents the field and laboratory results collected on the Leasehold Property during December 2012, and provides a summary of the monitoring results over the past 5 years. As the September and December 2012 sampling results are consistent with the historic information, Malcolm Pirnie, on behalf of General Mills, is requesting that a No Further Action determination be made for the Site, and the SCDRM approve closure of the existing wells.

This section of the Report presents a brief historical summary of the Site and Leasehold Property. Section 2 describes the methods and procedures used to collect the groundwater samples on December 20, 2012; and Section 3 summarizes the field and laboratory results. Sample results from prior historical monitoring events are summarized in the tables included in this report. Section 4 provides conclusions based on the results of the most recent and historic groundwater monitoring events at the Leasehold Property.

## 1.1. Site History

The Former Flour Mill Facility is a 38-acre site located within an industrial area of Vallejo, California that was used as a flour processing mill between 1869 and 2004. The Site is located along the southeast side of Mare Island Strait, a tributary to the San Pablo Bay, which is the northern extent of the San Francisco Bay. The Leasehold Property is a 10-acre parcel within the larger 38-acre site. Figures 1 and 2 provide a Site Location Map and Facility Plan, respectively. Operations historically conducted on-Site included receiving (via ship and rail) and storing raw grain and cleaning, processing, bleaching, and packaging flour and other General Mills products. General Mills ceased operations in October 2004, in preparation for divestiture of the Site.

The City of Vallejo was granted title to the Leasehold Property under a legislative grant from the State Lands Commission, and acts on their behalf as the executor of the property. The City of Vallejo formerly leased the 10-acre parcel to General Mills under a long-term lease agreement. In June 2007, the City of Vallejo re-assigned the lease to

Brooks Street as part of the overall purchase agreement with General Mills for the Former Flour Mill Facility. Malcolm Pirnie understands that the City has now entered into a long-term lease agreement with Vortex Marine Construction. Future land use for the Leasehold Property is currently restricted by the legislative grant to commercial/industrial and activities associated with maritime commerce, as well as shoreline access by the general public (e.g., open space). No other uses are permitted.

## 1.2. Historical Groundwater Monitoring

Malcolm Pirnie submitted a Well Installation and Groundwater Monitoring Plan (GWMP) to SCDRM on June 15, 2007 per the requirements as set forth in SCDRM's April 16, 2007, and May 16, 2007 letters to General Mills. The purpose of the GWMP was to establish the procedures to assess and monitor shallow groundwater quality beneath the Leasehold Property following the completion of the soil remediation activities. The 2010 Closure Action Plan Addendum, submitted by Malcolm Pirnie on September 9, 2011 and approved by the SCDRM in a letter dated September 12, 2011, identified constituents of concern (COCs) as total petroleum hydrocarbons (TPH) as diesel fuel (TPH-D) and motor oil (TPH-MO) and polycyclic aromatic hydrocarbons (PAHs), eliminating a number of analytes previously considered potential COCs (see Section 2.2). Water quality is to be evaluated relative to nuisance conditions (i.e. presence of sheen or free product) for petroleum products and relative to Site-specific screening levels (SSLs) previously developed for the leasehold property for PAHs.

Malcolm Pirnie implemented the GWMP in July 2007, and submitted the Well Installation and Third Quarter 2007 Groundwater Monitoring Report to the SCDRM on October 10, 2007. Since that time Malcolm Pirnie, on behalf of General Mills, has conducted 15 groundwater monitoring events at the Leasehold Property and the results are presented in this report as well as reports previously submitted to the SCDRM. The December 2012 sampling results indicate that the Site meets the verification monitoring requirements presented in 2010 Corrective Action Plan Addendum, dated September 9, 2011, and approved by the SCDRM in their September 12, 2011 letter (i.e. no nuisance conditions). In addition, an evaluation of current Site conditions and Site-specific water quality data indicates that the Site meets the definition of a low-threat site, in accordance with the State Water Resources Control Board's Low-Threat UST Closure Policies (adopted May 1, 2012).

In accordance with the SCDRM's request in their April 13, 2012 letter, Malcolm Pirnie conducted a one-day high vacuum extraction (HiVac) event on well MP-6R on August 28, 2012. Malcolm Pirnie collected groundwater samples from wells MP-1R, MP-6R and EW-1 on September 27, 2012, in accordance with the revised sampling plan presented in our letter dated June 25, 2012. Malcolm Pirnie conducted a similar groundwater monitoring event on December 20, 2012.

# 2. Field Activities and Methods

The following sections summarize the methods and procedures followed during the implementation of the groundwater monitoring event at the Leasehold Property in December 2012 and additional field work conducted to verify an absence of nuisance conditions. Activities were conducted in accordance with the SCDRM-approved GWMP and subsequent addenda, as described above.

## 2.1. Groundwater Sampling

Environmental Sampling Services (ESS) collected depth-to-water measurements on December 20, 2012 from 16 shallow wells (monitoring wells MP-1R, MP-2, MP-6R, MP-8, MP-9, MP-10, MP-11, MP-12, MP-13A, MP-13B, and MP-14; and pilot test extraction wells EW-1, EW-2, EW-3, EW-4 and EW-5). Well locations are presented in Figure 2. ESS then purged and collected groundwater samples from three of the Site wells (MP-1R, MP-6R, and EW-1) using low-flow sampling methodology. Low-flow groundwater purging and sampling is a standard method for collecting groundwater samples that are representative of the formation from which they are being withdrawn. Low-flow groundwater sampling requires traditional groundwater sampling equipment in addition to a multi-parameter water quality monitoring system (e.g., Horiba U-22 or equivalent) equipped with a flow through cell; a turbidity meter; an adjustable rate, positive displacement, groundwater pump (a peristaltic pump was used at the Site) capable of achieving low-flow pumping rates (i.e., 100 to 500 milliliters per minute [ml/min]); polyethylene tubing or equivalent; a flow measurement device (a graduated container and stop watch were used at the Site); and a water level probe or oil/water interface probe.

Disposable or "single use" groundwater sampling equipment and personal protective equipment was discarded as municipal solid waste. Dedicated equipment (i.e., purge tubing) does not require decontamination. The decontamination procedure for non-disposable and non-dedicated low-flow groundwater sampling equipment included: (1) pre-rinsing – flushing the equipment thoroughly with distilled water for approximately five minutes; (2) washing – flushing equipment thoroughly with Alconox or other non-phosphate detergent solution for approximately five minutes; and (3) rinsing – flushing equipment thoroughly with distilled water for approximately five minutes or until the detergent has been removed from the equipment (whichever is longer).

Groundwater monitoring well construction information is summarized in Table 1 and depth-to-water measurements and calculated groundwater elevations are summarized in

Table 2. Water quality parameters (dissolved oxygen [DO], pH, temperature, oxidation-reduction potential [ORP], specific conductance [SC], and turbidity) monitored during purging are summarized in Table 3, and included in the field activity report in Appendix A. Field and laboratory results are summarized in Section 3.

## 2.2. Laboratory Analyses

ESS submitted the samples collected from the 3 groundwater monitoring wells (EW-1, MP-1R and MP-6R) to Curtis & Tompkins, Ltd., a California-certified analytical laboratory located in Berkeley, CA, for analysis. Laboratory analyses performed on the samples collected included:

- TPH as gasoline (TPH-G) using USEPA Method 8015B.
- TPH-D and TPH-MO using USEPA Method 8015B. Samples were analyzed both prior to and following silica gel cleanup (USEPA Method 3630C). The silica gel cleanup method was requested to evaluate the occurrence of petroleum biodegradation as well as compared the results to historical data.
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and other volatile organic compounds (VOCs) using USEPA Method 8260.
- PAHs using USEPA Method 8270C-SIM.
- Total dissolved solids (TDS) using Standard Method SM2540C, which is equivalent to the USEPA Method 160.1.

Analysis of TPH-G and VOCs, including BTEX was discontinued beginning in December 2011 in accordance with the 2010 Closure Action Plan Addendum dated September 9, 2011, as approved by SCDRM in a September 12, 2011 letter. However, at the request of the SCDRM (telephone conversation June 26, 2012), the sample collected from MP-1R was analyzed for BTEX and VOCs; and the samples collected from MP-6R and EW-1 were analyzed for TPH-G. Laboratory results are presented in Section 3.

## 2.3. Groundwater Sampling Derived Waste

Decontamination and purge water were discharged to an on-Site sanitary sewer system under a temporary industrial discharge permit issued by the Vallejo Sanitation and Flood Control District.

## 2.4. Mare Island Strait Inspections

Inspections of the Site shoreline downgradient of, and cross-gradient to, the remediation area were conducted by ESS on December 20, 2012, to verify that a petroleum hydrocarbon sheen was not visible on the water surface.

# 3. Field and Laboratory Results

This section summarizes the field and laboratory results from the groundwater monitoring event. The field activity report and certified laboratory report from the December 2012 monitoring event are included as Appendices A and B, respectively.

## 3.1. Groundwater Flow

Depth-to-water measurements and calculated groundwater elevations collected from Leasehold Property wells since January 2006 are summarized in Table 2. In December 2012, shallow groundwater beneath the Leasehold Property was measured at elevations ranging from 5.06 feet above mean sea level (amsl) to 7.02 feet amsl.

Based on the depth-to-water measurements and calculated shallow groundwater surface elevations (Table 2), the groundwater flow direction beneath the Leasehold Property was assessed to be to the south to southwest. A shallow groundwater elevation contour map for the monitoring event is included as Figure 3.

## 3.2. Field Observations

Field staff noted a sulfide odor emanating from the water purged from well MP-1R, and suspended orange organic material was noted in water purged from well EW-1. No indications of a sheen or hydrocarbon odor were noted in wells MP-1R, EW-1 or MP-1R.

No evidence of a petroleum hydrocarbon sheen was observed on the surface of the water next to the shoreline at any time.

## 3.3. Field Groundwater Quality Measurement

Field water quality measurements collected during the December 2012 sampling event, as well as previous sampling events, are summarized in Table 3. The following summarizes the results of the field measurement collected from the monitoring wells in December 2012.

- DO was measured at concentrations ranging from 0.32 milligrams per liter (mg/L) to 1.25 mg/L.
- Purged groundwater was relatively neutral, with measurements ranging from pH 6.40 to pH 7.34.
- Temperature of the purged water varied from 19.46 degrees Celsius (°C) to 20.10 °C.
- ORP measurements ranged from -372.8 millivolts (mV) to 28.2 mV.

- SC was measured above 2,500 microSiemens (µS/cm) in two of the three wells (MP-1R and MP-6R).

## 3.4. Laboratory Results

Laboratory results of the groundwater samples collected from Site monitoring wells since 2006 are summarized in Table 4. The following briefly summarizes the laboratory results for samples collected during the December 2012 monitoring event. Concentrations of detectable constituents of concern for the December 2012 sampling are illustrated on Figure 4.

### 3.4.1. TDS

TDS concentrations were 1,040/1,060 mg/L and 3,870 mg/L, respectively for wells (MP-6R and EW-1) in the Inland Groundwater Zone and 10,800 mg/L for well MP-1R in the Buffer Zone.

### 3.4.2. TPH-G

Hydrocarbons in the TPH-G range were not reported above the laboratory method reporting limit (MRL) of 50 µg/L in the samples collected from wells MP-6R or EW-1. The sample collected from well MP-1R was not analyzed for TPH-G.

### 3.4.3. TPH-D

Hydrocarbons in the TPH-D range were reported in the sample collected from well MP-6R at a concentration of 290 µg/L when using the silica gel cleanup method (Table 4). TPH-D results for samples collected from wells MP-1R and EW-1 are below the laboratory MRL when using silica gel cleanup method. This result is below the SSL of 2,500 µg/L. Concentrations were reported to range from 460 µg/L to 4,100 µg/L when the silica gel cleanup method was not used (Table 5). The laboratory reported that the chromatogram resulting from pre-cleanup analysis of the MP-1R, MP-6R and EW-1 samples did not match the laboratory standard.

### 3.4.4. TPH-MO

After using the silica gel cleanup method, hydrocarbons in the TPH-MO range were not reported above the MRL of 290 µg/L in the samples collected from wells MP-1R, MP-6R and EW-1.

### 3.4.5. BTEX and VOCs

One VOC, cis-1,2-dichloroethene (cis-1,2-DCE) was reported in well MP-1R at a concentration of 1.0 µg/L, which is less than its SSL of 590 µg/L and is consistent with historical results for this well.

### 3.4.6. PAHs

Select PAHs were reported above their respective MRLs but below their respective Buffer Zone SSLs in the sample collected from well MP-1R, and below their respective Inland Groundwater Zone SSLs in the samples collected from wells MP-6R. PAH concentrations were not reported above their respective MRL in the sample collected from EW-1. Reported concentrations are summarized in Table 4 and include:

- Naphthalene at concentrations of 0.2 and 0.1 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL for naphthalene is 24 µg/L.
- Acenaphthylene at a concentration of 0.09 µg/L in the sample collected from MP-1R and at a concentration of 0.2 in the sample collected from MP-6R. The Buffer Zone and the Inland Groundwater Zone SSL for acenaphthylene is 30 µg/L.
- Acenaphthene at a concentration of 4.0 and 0.7 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL for acenaphthene is 23 µg/L.
- Fluorene at concentrations of 0.09 and 1.1 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone SSL is 3.9 µg/L and the Inland Groundwater Zone SSL is 950 µg/L.
- Phenanthrene at a concentration of 0.1 µg/L in the sample collected from MP-6R. The Inland Groundwater Zone SSL is 410 µg/L.
- Anthracene at concentrations of 0.2 µg/L and 0.4 µg/L in the samples collected from MP-1R and MP-6R, respectively. The SSL for anthracene in both the Inland Groundwater Zone and the Buffer Zone is 0.73 µg/L.
- Fluoranthene at concentrations of 0.3 and 0.1 µg/L from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL is 8.0 µg/L.
- Pyrene at a concentration of 0.2 µg/L in the samples collected from well MP-1R and MP-6R. The Buffer Zone and the Inland Groundwater Zone SSL is 2.0 µg/L.

# 4. Discussion

In general, the December 2012 water quality results are within the ranges recorded over the past four years. In addition, Malcolm Pirnie provides the following assessments based on our evaluation of the field and laboratory data collected during recent and historic groundwater monitoring events conducted at the Leasehold Property.

## 4.1. Groundwater Flow

Groundwater flow beneath the Leasehold Property, as illustrated in Figure 3, is generally toward the south to southwest. This is consistent with historical groundwater flow during the winter months.

## 4.2. Field Observations

The presence of free product or an oily sheen was not observed in any of the wells at the Site during the field monitoring over the past two years. These observations indicate nuisance conditions are not present at the Site. Additionally, field staff noted a sulfur odor from the water purged from well MP-1R as well as,an orange organic material in the purge water from well EW-1. The presence of the odor and organic material is likely a byproduct produced during anaerobic degradation of the organic compounds.

## 4.3. Groundwater Quality Parameters

Groundwater quality parameters (TDS and field-measured parameters) in the Inland Groundwater and Buffer Zones appears to have remained relatively consistent over the past four years, with two exceptions: TDS in wells MP-6R and MP-12, which have shown fluctuations over the past several years; and an increase in the ORP readings collected from wells MP-1R, MP-9 and MP-10 during December 2011 relative to historical measurements.

### 4.3.1. TDS and Temperature

TDS readings obtained from Leasehold Property samples collected since 2006 have ranged from 320 mg/L to 2,050 mg/L in Inland Groundwater wells with five exceptions:

- Well MP-6R. Historical TDS results have ranged in concentration from 1,080 mg/L to 2,050 mg/L. However, the TDS concentration of the samples collected in October 2009, December 2010, and December 2012 were 3,180 mg/L, 6,200 mg/L, and 3,870 mg/L, respectively.

- Well MP-12. In July 2007, the TDS concentration of the sample collected was 5,070 mg/L. Subsequent samples demonstrated that the TDS concentrations in this well ranged between 470 mg/L and 1,680 mg/L; however, in the sample collected in December 2011, the TDS concentration was 2,750 mg/L, above the typical historic range.

TDS readings obtained from Leasehold Property samples collected since 2006 have ranged from 4,660 mg/L to 18,800 mg/L in Buffer Zone wells with three exceptions:

- Well MP-8. Historical TDS concentrations in the samples collected from well MP-8 ranged from 7,900 mg/L to 18,800 mg/L. However, samples collected in March and April 2006 had TDS concentrations of 2,970 mg/L and 1,940 mg/L, respectively.
- Well MP-13A. In June 2011, the TDS concentration in the sample collected was 3,820 mg/L, lower than the values typically observed for this well.

The TDS concentrations in samples collected in December 2012 were within historic ranges for their respective wells with the exception of MP-6R, which was slightly above its historical range with a TDS concentration of 3,870 mg/L.

The temperature of purged groundwater from the three wells sampled in December 2012 was within the historical range. Higher temperatures are generally observed during summer and fall months, while lower temperatures are observed during winter and spring months.

### 4.3.2. DO

The DO measured in purged groundwater during the December 2012 monitoring event is within the historic range for the wells sampled. The measured DO indicates that the groundwater beneath the Site is under anaerobic conditions for wells MP-1R and MP-6R (DO below 1 mg/L) and slightly aerobic for well EW-1 (DO of 1.25 mg/L).

### 4.3.3. ORP

The ORP measured in purged groundwater in December 2012 indicates that the groundwater beneath the Site is under mildly to moderately reducing conditions. December 2012 ORP measurements are generally within the historical range for the wells sampled, with the exception of well EW-1, which was at 28.2 mV in December 2012, compared to historical readings of -55.0 and -124.9 mV (Table 3).

### 4.3.4. pH

Purged groundwater in December 2012 was relatively neutral, which is consistent with historical results.

## 4.4. Constituents of Concern

Laboratory results reported during the December 2012 groundwater monitoring event indicate that dissolved COCs detected beneath the Leasehold Property are generally stable or decreasing and below their respective SSLs.

### 4.4.1. TPH-G[1]

Hydrocarbons in the TPH-G range were not reported above the laboratory MRL in either of the two wells analyzed for these compounds (MP-6R and EW-1). The results are consistent with historic results.

### 4.4.2. TPH-D

Hydrocarbon concentrations in the TPH-D range were reported in one of the three wells sampled (MP-6R) at a concentration of 290 µg/L when analyzed using silica gel cleanup. The concentration in MP-6R represents a historical low and indicates that the long-term trend in well MP-6R is decreasing. Figure 5 illustrates TPH-D concentrations measured over time in the groundwater samples collected from wells MP-6R and MP-1R. The concentration trend in MP-1R appears to be stable at or near the MRL. The TPH-D concentration of the sample from EW-1 is below the MRL after silica gel cleanup, which is consistent with previous sampling event results. EW-1 is not included in Figure 5, as there have been no historical TPH-D detections following silica gel cleanup.

The silica gel cleanup method removes polar organic compounds which could potentially interfere with TPH-D analysis. TPH-D range hydrocarbons were reported in the three wells when samples were not filtered through silica gel (Table 5) which indicates that the hydrocarbon compounds contained in Site groundwater are polar. These polar compounds are likely naturally occurring or represent biodegradation byproducts.

### 4.4.3. TPH-MO

Hydrocarbon concentrations in the TPH-MO range were reported to be below the laboratory MRL in the three wells sampled during the monitoring period when analyzed using the silica gel cleanup method. This is consistent with historical results.

### 4.4.4. BTEX and VOCs[2]

The concentration of cis-1,2-DCE in the sample collected from well MP-1R is within the historical range of concentrations reported from that well, and is well below the SSL of 590 µg/L for buffer zone groundwater.

[1] TPH-G is no longer considered a COC for the Site.
[2] BTEX and VOCs are no longer considered COCs for the Site.

### 4.4.5. PAHs

PAH concentrations, including known or suspected carcinogenic compounds, did not exceed their respective SSLs in the three wells sampled (MP-1R, MP-6R, and EW-1) during the monitoring period. These results are consistent with historical observations.

## 4.5. Summary

Since completion of the on-Site remedial actions in June 2007, concentrations of PAHs in groundwater have been stable and/or decreasing and have been consistently detected at or below their respective SSLs. Concentrations of TPH-D and TPH-MO have also been stable or decreasing during that same time interval. Although a thin layer of free-phase product was noted in MP-6R in early 2009, after removing the product from MP-6R, on-Site wells have not contained measurable free-phase product since. A petroleum sheen has not been observed in Mare Island Strait adjacent to the Site.

The field monitoring results collected from the past three years and the recent high vacuum extraction pilot tests demonstrate that nuisance conditions are not present at the Site, free product is not present in the 16 on-Site wells, residual petroleum hydrocarbons outside the former excavation area are limited in mass and not mobile, and dissolved PAH concentrations are below their respective SSLs.

The above field and laboratory results indicate that the Site meets the verification monitoring requirements presented in 2010 Corrective Action Plan Addendum, dated September 9, 2011, and approved by the SCDRM in their September 12, 2011 letter (i.e. no nuisance conditions). In addition, an evaluation of current Site conditions and Site-specific water quality data indicates that the Site meets the definition of a low-threat site, in accordance with the State Water Resources Control Board's Low-Threat UST Closure Policies (adopted May 1, 2012).

As the December 2012 sampling results are consistent with historic results, Malcolm Pirnie, on behalf of General Mills, requests that a No Further Action determination be made for the site. General Mills has submitted a Site Management Plan for review by the SCDRM, and is currently working to develop draft deed restrictions for the Leasehold Property for SCDRM's review. Once the above two items have approved by the SCDRM, the on-site wells will be properly destroyed.

**General Mills Operations, Inc.**
Fourth Quarter 2012 Groundwater Monitoring Report
Leasehold Property, Former Flour Mill Facility
800 Derr Street, Vallejo, California

# Tables

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**Table 1**
**Groundwater Monitoring Well Construction Data**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Date Installed | Total Depth (ft bgs) | Casing Material | Casing Diameter (inches) | Screen Slot Size (inches) | Screen Interval (ft bgs) |
|---|---|---|---|---|---|---|
| MP-1R | 7/23/2007 | 14.5 | PVC SCH 40 | 2 | 0.010 | 4 - 13.5 |
| MP-2 | 1/9/2006 | 15.5 | PVC SCH 40 | 2 | 0.010 | 5.5 - 15 |
| MP-6R | 7/23/2007 | 14.5 | PVC SCH 40 | 2 | 0.010 | 4.5 - 14 |
| MP-8 | 2/3/2006 | 14.0 | PVC SCH 40 | 2 | 0.010 | 4 - 13.5 |
| MP-9 | 12/20/2006 | 13.5 | PVC SCH 40 | 2 | 0.010 | 3.5 - 13 |
| MP-10 | 12/20/2006 | 14.0 | PVC SCH 40 | 2 | 0.010 | 4 - 13.5 |
| MP-11 | 12/28/2006 | 14.5 | PVC SCH 40 | 2 | 0.010 | 4.5 - 14 |
| MP-12 | 7/23/2007 | 14.5 | PVC SCH 40 | 2 | 0.010 | 4 - 13.5 |
| MP-13A | 7/24/2007 | 11.5 | PVC SCH 40 | 2 | 0.010 | 4.5 - 11.5 |
| MP-13B | 7/24/2007 | 22.5 | PVC SCH 40 | 2 | 0.010 | 17.5 - 22 |
| MP-14 | 7/24/2007 | 14 | PVC SCH 40 | 2 | 0.010 | 4 - 13.5 |
| EW-1 | 10/28/2011 | 12.3 | PVC SCH 40 | 4 | 0.020 | 5.0 - 12.0 |
| EW-2 | 10/28/2011 | 11.9 | PVC SCH 40 | 4 | 0.020 | 4.7 - 11.7 |
| EW-3 | 10/28/2011 | 12.3 | PVC SCH 40 | 4 | 0.020 | 5.1 - 12.1 |
| EW-4 | 10/28/2011 | 11.8 | PVC SCH 40 | 4 | 0.020 | 4.6 - 11.6 |
| EW-5 | 10/28/2011 | 12.1 | PVC SCH 40 | 4 | 0.020 | 4.8 - 11.8 |

**Notes:**
ft bgs = feet below ground surface
PVC SCH = polyvinyl chloride schedule

**Table 2**
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Top of Casing Elevation (feet, msl) | Well Depth (feet) | Measurement Date | Depth to Groundwater (feet, bgs) | Groundwater Elevation (feet, msl) |
|---|---|---|---|---|---|
| MP-1R | 10.34 | 13.70 | 7/30/2007 | 6.59 | 3.75 |
| | | | 11/15/2007 | 5.92 | 4.42 |
| | | | 2/20/2008 | 5.59 | 4.75 |
| | | | 5/27/2008 | 6.09 | 4.25 |
| | | | 11/24/2008 | 5.63 | 4.71 |
| | | | 2/24/2009 | 4.70 | 5.64 |
| | | | 5/7/2009 | 5.21 | 5.13 |
| | | | 12/21/2009 | 5.08 | 5.26 |
| | | | 6/29/2010 | 4.47 | 5.87 |
| | | | 12/28/2010 | 5.30 | 5.04 |
| | | | 6/28/2011 | 4.39 | 5.95 |
| | | | 12/12/2011 | 5.25 | 5.09 |
| | | | 6/27/2012 | 4.57 | 5.77 |
| | | | 9/27/2012 | 5.48 | 4.86 |
| | | | 12/20/2012 | 4.96 | 5.38 |
| MP-2 | 10.53<br>10.83[1] | 15.41 | 1/12/2006 | 4.10 | 6.43 |
| | | | 2/9/2006 | 4.88 | 5.65 |
| | | | 3/14/2006 | 3.41 | 7.12 |
| | | | 4/13/2006 | 3.37 | 7.16 |
| | | | 8/3/2006 | 5.10 | 5.43 |
| | | | 7/30/2007 | 5.09 | 5.74 |
| | | | 11/15/2007 | 5.02 | 5.81 |
| | | | 2/20/2008 | 4.69 | 6.14 |
| | | | 5/27/2008 | 5.48 | 5.35 |
| | | | 11/24/2008 | 5.28 | 5.55 |
| | | | 2/24/2009 | 3.75 | 7.08 |
| | | | 5/7/2009 | 5.06 | 5.77 |
| | | | 12/21/2009 | 4.90 | 5.93 |
| | | | 6/29/2010 | 5.16 | 5.67 |
| | | | 12/28/2010 | 4.10 | 6.73 |
| | | | 6/28/2011 | 5.05 | 5.78 |
| | | | 12/12/2011 | 5.46 | 5.37 |
| | | | 6/27/2012 | 5.41 | 5.42 |
| | | | 9/27/2012 | 5.59 | 5.24 |
| | | | 12/20/2012 | 4.75 | 6.08 |
| MP-6R | 11.19 | 14.93 | 7/30/2007 | 5.11 | 6.08 |
| | | | 11/15/2007 | 4.65 | 6.54 |
| | | | 2/20/2008 | 4.54 | 6.65 |
| | | | 5/27/2008 | 5.59 | 5.60 |
| | | | 11/24/2008 | 5.22 | 5.97 |
| | | | 2/24/2009 | 4.38 | 6.81 |
| | | | 5/7/2009 | 4.97 | 6.22 |
| | | | 12/21/2009 | 4.43 | 6.76 |
| | | | 6/29/2010 | 4.78 | 6.41 |
| | | | 12/28/2010 | 3.83 | 7.36 |
| | | | 6/28/2011 | 4.90 | 6.29 |
| | | | 12/12/2011 | 5.37 | 5.82 |
| | | | 6/27/2012 | 5.33 | 5.86 |
| | | | 9/27/2012 | 5.81 | 5.38 |
| | | | 12/20/2012 | 4.30 | 6.89 |

**Table 2**
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Top of Casing Elevation (feet, msl) | Well Depth (feet) | Measurement Date | Depth to Groundwater (feet, bgs) | Groundwater Elevation (feet, msl) |
|---|---|---|---|---|---|
| MP-8 | 10.71 | 13.75 | 2/9/2006 | 5.42 | 5.29 |
| | 10.90[1] | | 3/14/2006 | 5.12 | 5.59 |
| | | | 4/13/2006 | 4.94 | 5.77 |
| | | | 8/3/2006 | 5.67 | 5.04 |
| | | | 12/29/2006 | 6.54 | 4.17 |
| | | | 7/30/2007 | 5.90 | 5.00 |
| | | | 11/15/2007 | 6.65 | 4.25 |
| | | | 2/20/2008 | 6.24 | 4.66 |
| | | | 5/27/2008 | 6.66 | 4.24 |
| | | | 11/24/2008 | 5.67 | 5.23 |
| | | | 2/24/2009 | 6.02 | 4.88 |
| | | | 5/7/2009 | 7.54 | 3.36 |
| | | | 12/21/2009 | 6.17 | 4.73 |
| | | | 6/29/2010 | 6.62 | 4.28 |
| | | | 12/28/2010 | 5.08 | 5.82 |
| | | | 6/28/2011 | 6.31 | 4.59 |
| | | | 12/12/2011 | 6.55 | 4.35 |
| | | | 6/27/2012 | 6.49 | 4.41 |
| | | | 9/27/2012 | 6.80 | 4.10 |
| | | | 12/20/2012 | 5.41 | 5.49 |
| MP-9 | 9.81 | 13.38 | 12/29/2006 | 3.23 | 6.58 |
| | | | 7/30/2007 | 3.86 | 5.95 |
| | | | 11/15/2007 | 3.44 | 6.37 |
| | | | 2/20/2008 | 3.38 | 6.43 |
| | | | 5/27/2008 | 4.03 | 5.78 |
| | | | 11/24/2008 | 3.69 | 6.12 |
| | | | 2/24/2009 | 2.45 | 7.36 |
| | | | 5/7/2009 | 3.54 | 6.27 |
| | | | 12/21/2009 | 3.17 | 6.64 |
| | | | 6/29/2010 | 3.47 | 6.34 |
| | | | 12/28/2010 | 2.61 | 7.20 |
| | | | 6/28/2011 | 3.63 | 6.18 |
| | | | 12/12/2011 | 4.05 | 5.76 |
| | | | 6/27/2012 | 4.05 | 5.76 |
| | | | 9/27/2012 | 4.51 | 5.30 |
| | | | 12/20/2012 | 3.08 | 6.73 |
| MP-10 | 11.05 | 14.41 | 12/29/2006 | 4.81 | 6.24 |
| | | | 7/30/2007 | 5.64 | 5.41 |
| | | | 11/15/2007 | 5.57 | 5.48 |
| | | | 2/20/2008 | 4.93 | 6.12 |
| | | | 5/27/2008 | 5.85 | 5.20 |
| | | | 11/24/2008 | 5.68 | 5.37 |
| | | | 2/24/2009 | 4.39 | 6.66 |
| | | | 5/7/2009 | 5.27 | 5.78 |
| | | | 12/21/2009 | 4.97 | 6.08 |
| | | | 6/29/2010 | 5.44 | 5.61 |
| | | | 12/28/2010 | 3.94 | 7.11 |
| | | | 6/28/2011 | 5.03 | 6.02 |
| | | | 12/12/2011 | 6.06 | 4.99 |
| | | | 6/27/2012 | 5.53 | 5.52 |
| | | | 9/27/2012 | 6.31 | 4.74 |
| | | | 12/20/2012 | 4.40 | 6.65 |
| MP-11 | 11.87 | 14.40 | 12/29/2007 | 5.00 | 6.87 |
| | | | 7/30/2007 | 5.78 | 6.09 |
| | | | 11/15/2007 | 5.27 | 6.60 |
| | | | 2/20/2008 | 5.13 | 6.74 |
| | | | 5/27/2008 | 5.95 | 5.92 |
| | | | 11/24/2008 | 5.60 | 6.27 |
| | | | 2/24/2009 | 4.00 | 7.87 |
| | | | 5/7/2009 | 5.40 | 6.47 |
| | | | 12/21/2009 | 5.01 | 6.86 |
| | | | 6/29/2010 | 5.34 | 6.53 |
| | | | 12/28/2010 | 4.46 | 7.41 |
| | | | 6/28/2011 | 5.53 | 6.34 |
| | | | 12/12/2011 | 6.00 | 5.87 |
| | | | 6/27/2012 | 5.96 | 5.91 |
| | | | 9/27/2012 | 6.45 | 5.42 |
| | | | 12/20/2012 | 4.85 | 7.02 |

**Table 2**
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Top of Casing Elevation (feet, msl) | Well Depth (feet) | Measurement Date | Depth to Groundwater (feet, bgs) | Groundwater Elevation (feet, msl) |
|---|---|---|---|---|---|
| MP-12 | 9.77 | 13.82 | 7/30/2007 | 4.49 | 5.28 |
| | | | 11/15/2007 | 1.11 | 8.66 |
| | | | 2/20/2008 | 0.54 | 9.23 |
| | | | 5/27/2008 | 4.71 | 5.06 |
| | | | 11/24/2008 | 4.52 | 5.25 |
| | | | 2/24/2009 | 0.50 | 9.27 |
| | | | 5/7/2009 | 2.93 | 6.84 |
| | | | 12/21/2009 | 0.59 | 9.18 |
| | | | 6/29/2010 | 4.47 | 5.30 |
| | | | 12/28/2010 | -0.19 [4] | 9.96 |
| | | | 6/28/2011 | 4.25 | 5.52 |
| | | | 12/12/2011 | 4.69 | 5.08 |
| | | | 6/27/2012 | 4.42 | 5.35 |
| | | | 9/27/2012 | 5.04 | 4.73 |
| | | | 12/20/2012 | 3.05 | 6.72 |
| MP-13A | 10.22 | 11.60 | 7/30/2007 | 6.31 | 3.91 |
| | | | 11/15/2007 | 5.86 | 4.36 |
| | | | 2/20/2008 | 5.56 | 4.66 |
| | | | 5/27/2008 | 5.89 | 4.33 |
| | | | 11/24/2008 | 5.16 | 5.06 |
| | | | 2/24/2009 | 5.41 | 4.81 |
| | | | 5/7/2009 | 6.84 | 3.38 |
| | | | 12/21/2009 | 5.36 | 4.86 |
| | | | 6/29/2010 | 5.39 | 4.83 |
| | | | 12/28/2010 | 4.43 | 5.79 |
| | | | 6/28/2011 | 5.64 | 4.58 |
| | | | 12/12/2011 | 5.77 | 4.45 |
| | | | 6/27/2012 | 5.83 | 4.39 |
| | | | 9/27/2012 | 5.66 | 4.56 |
| | | | 12/20/2012 | 4.85 | 5.37 |
| MP-13B | 10.17 | 22.24 | 7/30/2007 | 5.79 | 4.38 |
| | | | 11/15/2007 | 5.89 | 4.28 |
| | | | 2/20/2008 | 6.33 | 3.84 |
| | | | 5/27/2008 | 6.48 | 3.69 |
| | | | 2/24/2009 | 5.99 | 4.18 |
| | | | 5/7/2009 | 6.25 | 3.92 |
| | | | 12/21/2009 | 5.78 | 4.39 |
| | | | 6/29/2010 | 6.65 | 3.52 |
| | | | 12/28/2010 | 4.93 | 5.24 |
| | | | 6/28/2011 | 6.29 | 3.88 |
| | | | 12/12/2011 | 6.29 | 3.88 |
| | | | 6/27/2012 | 6.23 | 3.94 |
| | | | 9/27/2012 | 5.82 | 4.35 |
| | | | 12/20/2012 | 5.11 | 5.06 |
| MP-14 | 10.32 | 13.57 | 7/30/2007 | 6.61 | 3.71 |
| | | | 11/15/2007 | 6.05 | 4.27 |
| | | | 2/20/2008 | 5.57 | 4.75 |
| | | | 5/27/2008 | 6.11 | 4.21 |
| | | | 11/24/2008 | 4.84 | 5.48 |
| | | | 2/24/2009 | 5.36 | 4.96 |
| | | | 5/7/2009 | 7.20 | 3.12 |
| | | | 12/21/2009 | 5.59 | 4.73 |
| | | | 6/29/2010 | 6.45 | 3.87 |
| | | | 12/28/2010 | 4.63 | 5.69 |
| | | | 6/28/2011 | 6.05 | 4.27 |
| | | | 12/12/2011 | 5.96 | 4.36 |
| | | | 6/27/2012 | 5.98 | 4.34 |
| | | | 9/27/2012 | 6.21 | 4.11 |
| | | | 12/20/2012 | 4.95 | 5.37 |

**Table 2**
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Top of Casing Elevation (feet, msl) | Well Depth (feet) | Measurement Date | Depth to Groundwater (feet, bgs) | Groundwater Elevation (feet, msl) |
|---|---|---|---|---|---|
| EW-1 | NM | 12.3 | 6/27/2012 | 7.69 | NA |
| | | | 9/27/2012 | 8.16 | NA |
| | | | 12/20/2012 | 6.59 | NA |
| EW-2 | NM | 11.9 | 6/27/2012 | 7.76 | NA |
| | | | 9/27/2012 | 8.24 | NA |
| | | | 12/20/2012 | 6.66 | NA |
| EW-3 | NM | 12.3 | 6/27/2012 | 8.14 | NA |
| | | | 9/27/2012 | 8.63 | NA |
| | | | 12/20/2012 | 7.07 | NA |
| EW-4 | NM | 11.8 | 6/27/2012 | 7.68 | NA |
| | | | 9/27/2012 | 8.13 | NA |
| | | | 12/20/2012 | 6.58 | NA |
| EW-5 | NM | 12.1 | 6/27/2012 | 7.70 | NA |
| | | | 9/27/2012 | 8.17 | NA |
| | | | 12/20/2012 | 6.61 | NA |
| | | | | **Time[2]** | **Tide Height[3] (feet MLLW)** |
| SMP | NA | NA | 7/30/2007 | 11:12 | -0.11 (flood) |
| | | | | 11:48 | 0.08 (flood) |
| | | | 11/15/2007 | 09:30 | 3.05 (static) |
| | | | | 10:00 | 3.05 (flood) |
| | | | 2/20/2008 | 09:54 | 4.99 (flood) |
| | | | | 10:24 | 5.41 (flood) |
| | | | 5/27/2008 | 10:42 | 1.13 (ebb) |
| | | | | 13:42 | 6.84-5.13 |
| | | | 12/9/2008 | 11:12 | 1.54 (ebb) |
| | | | | 13:12 | 0.38 (ebb) |

[1] Top-of-casing was resurveyed on 8/14/2007
[2] Local tide times encompass monitoring well groundwater measurement sampling times
[3] Historic tide data for Mare Island Strait, California obtained at http://tidesandcurrents.NOAA.gov
[4] Artesian
bgs = below ground surface
MLLW = Mean Lower Low Water
msl = mean sea level
NA = Not Applicable
NM = Not Measured

# Table 3
# Field Groundwater Quality Measurements
# Fourth Quarter 2012 Groundwater Monitoring Report, January 2013
# Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California

| Well ID | Measurement Sample Date | Dissolved Oxygen (mg/L) | pH | Temperature (°C) | Oxidation-Reduction Potential (mV) | Specific Conductivity (µS/cm) |
|---|---|---|---|---|---|---|
| MP-1R | 7/30/2007 | 0.65 | 7.17 | 24.15 | -74.6 | 15,711 |
| | 11/16/2007 | 0.54 | 7.38 | 22.02 | -156.6 | 15,070 |
| | 2/21/2008 | 0.39 | 7.18 | 16.21 | -96.5 | 18,277 |
| | 5/28/2008 | 0.90 | 6.61 | 20.28 | -85.6 | 17,766 |
| | 11/24/2008 | 0.05 | 7.02 | 22.45 | -96.6 | 14,935 |
| | 5/7/2009 | 0.21 | 6.93 | 20.78 | -71.6 | 13,281 |
| | 12/21/2009 | 0.17 | 6.88 | 19.74 | -143.6 | 15,677 |
| | 6/29/2010 | 0.32 | 7.11 | 22.41 | -307.8 | 14,366 |
| | 12/28/2010 | 0.64 | 7.11 | 18.37 | -21.2 | 17,684 |
| | 6/29/2011 | 0.32 | 7.55 | 19.79 | -284.6 | 16,634 |
| | 12/13/2011 | 2.57 | 7.39 | 17.70 | 87.5 | 17,771 |
| | 6/27/2012 | 0.74 | 7.63 | 22.68 | -358.1 | 16,633 |
| | 9/27/2012 | 0.96 | 7.20 | 23.26 | -155.0 | 15,808 |
| | 12/20/2012 | 0.84 | 7.26 | 19.50 | -372.8 | 17,620 |
| MP-2 | 7/30/2007 | 0.31 | 8.15 | 23.07 | -136.9 | 1,634 |
| | 11/16/2007 | 0.26 | 8.82 | 21.70 | -192.3 | 1,369 |
| | 2/20/2008 | 0.33 | 8.12 | 19.00 | 118.0 | 1,556 |
| | 5/27/2008 | 0.50 | 7.99 | 20.90 | -111.1 | 1,403 |
| | 12/21/2009 | 0.77 | 7.74 | 19.95 | -63.3 | 1,434 |
| | 12/28/2010 | 1.38 | 8.72 | 19.45 | -112.2 | 1,057 |
| | 12/12/2011 | 0.62 | 7.86 | 19.44 | -79.6 | 1,846 |
| MP-6R | 7/30/2007 | 0.42 | 7.49 | 23.03 | -139.8 | 2,461 |
| | 11/16/2007 | 0.47 | 8.22 | 22.12 | -221.9 | 2,290 |
| | 2/21/2008 | 0.32 | 7.55 | 16.48 | -125.1 | 2,570 |
| | 5/28/2008 | 0.39 | 6.93 | 20.46 | -137.2 | 1,986 |
| | 11/24/2008 | 0.14 | 7.29 | 22.03 | -95.3 | 1,926 |
| | 2/24/2009 | 0.57 | 7.31 | 17.91 | -187.3 | 2,243 |
| | 5/7/2009 | 0.11 | 7.28 | 21.21 | -195.2 | 1,920 |
| | 12/21/2009 | 0.25 | 7.22 | 19.22 | -231.7 | 4,019 |
| | 6/29/2010 | 0.28 | 7.32 | 22.22 | -305.7 | 3,210 |
| | 12/28/2010 | 0.63 | 8.39 | 18.26 | -163.4 | 8,490 |
| | 6/29/2011 | 0.39 | 7.43 | 20.91 | -300.6 | 3,588 |
| | 12/12/2011 | 0.70 | 7.46 | 20.32 | -88.0 | 2,487 |
| | 6/27/2012 | 0.61 | 7.48 | 22.59 | -269.7 | 4,699 |
| | 9/27/2012 | 0.69 | 7.34 | 23.74 | -132.3 | 2,129 |
| | 12/20/2012 | 0.32 | 7.34 | 20.10 | -243.2 | 5,226 |
| MP-8 | 12/29/2006 | 0.45 | 7.41 | 17.20 | -81.8 | 17,161 |
| | 7/30/2007 | 0.26 | 6.82 | 21.20 | -84.6 | 21,084 |
| | 11/16/2007 | 0.48 | 7.72 | 20.34 | -144.5 | 16,294 |
| | 2/20/2008 | 0.23 | 7.10 | 16.45 | -64.1 | 19,807 |
| | 5/27/2008 | 0.37 | 6.90 | 19.76 | -82.8 | 13,700 |
| | 12/21/2009 | 0.52 | 6.84 | 19.50 | -8.0 | 27,829 |
| | 12/28/2010 | 1.52 | 7.93 | 16.89 | -59.8 | 11,639 |
| | 12/12/2011 | 0.49 | 7.14 | 18.95 | -74.9 | 15,087 |

# Table 3
# Field Groundwater Quality Measurements
# Fourth Quarter 2012 Groundwater Monitoring Report, January 2013
# Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California

| Well ID | Measurement Sample Date | Dissolved Oxygen (mg/L) | pH | Temperature (°C) | Oxidation-Reduction Potential (mV) | Specific Conductivity (µS/cm) |
|---|---|---|---|---|---|---|
| MP-9 | 12/29/2006 | 0.30 | 7.00 | 18.57 | -65.1 | 2,753 |
| | 7/30/2007 | 0.26 | 6.84 | 23.06 | -117.9 | 2,539 |
| | 11/15/2007 | 0.16 | 7.03 | 21.72 | -131.6 | 1,654 |
| | 2/20/2008 | 0.28 | 6.81 | 16.03 | -81.1 | 1,754 |
| | 5/27/2008 | 0.81 | 6.34 | 20.71 | -84.1 | 2,094 |
| | 12/21/2009 | 0.24 | 6.67 | 18.27 | -113.4 | 1,711 |
| | 12/28/2010 | 0.87 | 6.71 | 17.65 | -21.7 | 2,427 |
| | 12/12/2011 | 2.50 | 6.81 | 18.34 | 83.8 | 3,260 |
| MP-10 | 12/29/2006 | 0.32 | 6.75 | 19.26 | -20.2 | 3,179 |
| | 7/30/2007 | 0.15 | 6.14 | 24.16 | -45.7 | 3,050 |
| | 11/16/2007 | 0.21 | 6.63 | 22.01 | -144.0 | 2,849 |
| | 2/20/2008 | 0.30 | 6.61 | 17.31 | -67.6 | 2,500 |
| | 5/27/2008 | 1.20 | 6.10 | 20.16 | -24.2 | 3,022 |
| | 12/21/2009 | 0.33 | 6.53 | 19.70 | -35.4 | 2,354 |
| | 12/28/2010 | 1.47 | 6.56 | 19.02 | -14.4 | 2,493 |
| | 12/12/2011 | 1.94 | 6.70 | 19.40 | 99.9 | 3,235 |
| MP-11 | 12/29/2006 | 3.87 | 7.69 | 17.69 | 42.6 | 680 |
| | 7/30/2007 | 0.34 | 7.14 | 22.73 | -26.5 | 436 |
| | 11/16/2007 | 0.94 | 7.42 | 21.22 | -30.2 | 496 |
| | 2/20/2008 | 0.50 | 7.13 | 17.91 | 69.4 | 716 |
| | 5/28/2008 | 0.34 | 6.80 | 19.97 | -66.3 | 472 |
| | 12/21/2009 | 1.53 | 6.78 | 19.45 | 43.7 | 455 |
| | 12/28/2010 | 2.24 | 6.78 | 18.99 | 22.8 | 683 |
| | 12/12/2011 | 1.99 | 7.18 | 18.18 | 124.5 | 975 |
| MP-12 | 7/30/2007 | 0.57 | 6.75 | 22.92 | -29.1 | 7,986 |
| | 11/15/2007 | 0.30 | 7.83 | 18.49 | -32.1 | 968 |
| | 2/21/2008 | 3.69 | 7.79 | 13.29 | 106.9 | 628 |
| | 5/27/2008 | 0.33 | 6.50 | 20.41 | -56.4 | 2,231 |
| | 12/21/2009 | 0.30 | 6.88 | 17.19 | -80.1 | 951 |
| | 12/28/2010 | 0.64 | 7.09 | 15.61 | -19.2 | 605 |
| | 12/12/2011 | 2.23 | 6.86 | 17.55 | 70.5 | 4,865 |
| MP-13A | 7/30/2007 | 0.28 | 7.19 | 22.18 | -110.3 | 10,763 |
| | 11/15/2007 | 0.35 | 7.29 | 21.39 | -165.0 | 12,529 |
| | 2/21/2008 | 0.32 | 7.04 | 16.66 | -89.6 | 11,852 |
| | 5/28/2008 | 1.52 | 6.54 | 19.47 | -18.7 | 10,813 |
| | 11/24/2008 | 0.15 | 7.12 | 21.88 | -75.7 | 9,550 |
| | 5/7/2009 | 0.11 | 7.53 | 19.37 | -109.1 | 7,229 |
| | 12/21/2009 | 0.40 | 7.06 | 18.07 | -132.6 | 8,979 |
| | 6/29/2010 | 0.45 | 7.12 | 21.71 | -153.7 | 6,698 |
| | 12/28/2010 | 0.71 | 8.07 | 16.98 | -152.5 | 6,176 |
| | 6/29/2011 | 0.64 | 7.16 | 18.99 | 104.2 | 6,896 |
| | 12/12/2011 | 1.01 | 7.11 | 19.18 | -86.3 | 7,693 |

# Table 3
# Field Groundwater Quality Measurements
# Fourth Quarter 2012 Groundwater Monitoring Report, January 2013
# Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California

| Well ID | Measurement Sample Date | Dissolved Oxygen (mg/L) | pH | Temperature (°C) | Oxidation-Reduction Potential (mV) | Specific Conductivity (µS/cm) |
|---|---|---|---|---|---|---|
| MP-13B | 7/30/2007 | 0.42 | 6.75 | 22.88 | 24.5 | 15,714 |
| | 11/15/2007 | 0.45 | 7.17 | 20.47 | -183.8 | 14,799 |
| | 2/21/2008 | 0.46 | 6.73 | 15.89 | -75.0 | 16,861 |
| | 5/28/2008 | 1.45 | 6.20 | 19.16 | -85.2 | 16,735 |
| | 12/21/2009 | 0.43 | 6.60 | 18.99 | -144.6 | 17,623 |
| | 12/28/2010 | 0.82 | 7.92 | 19.08 | -149.6 | 16,695 |
| | 12/12/2011 | 1.21 | 6.69 | 19.07 | -106.2 | 18,777 |
| MP-14 | 7/30/2007 | 0.37 | 7.06 | 20.80 | 50.3 | 20,909 |
| | 11/15/2007 | 0.27 | 7.36 | 20.13 | -126.9 | 18,951 |
| | 2/21/2008 | 0.51 | 7.06 | 14.33 | 91.0 | 17,559 |
| | 5/27/2008 | 0.79 | 6.48 | 17.98 | 60.5 | 17,070 |
| | 11/24/2008 | 0.14 | 6.81 | 20.78 | 62.7 | 16,028 |
| | 5/7/2009 | 0.18 | 6.86 | 17.79 | 21.2 | 11,620 |
| | 12/21/2009 | 0.24 | 6.76 | 18.96 | -31.2 | 15,831 |
| | 6/29/2010 | 0.44 | 6.75 | 19.09 | -123.5 | 14,102 |
| | 12/28/2010 | 0.79 | 6.80 | 17.90 | 8.1 | 17,607 |
| | 6/29/2011 | 0.82 | 6.99 | 17.33 | 92.1 | 14,116 |
| | 12/12/2011 | 1.48 | 7.00 | 17.88 | 108.6 | 14,756 |
| EW-1 | 6/27/2012 | 1.50 | 6.63 | 21.28 | -55.0 | 1,144 |
| | 9/27/2012 | 0.85 | 6.83 | 23.35 | -124.9 | 1,008 |
| | 12/20/2012 | 1.25 | 6.40 | 19.46 | 28.2 | 1,323 |
| SMP | 8/1/2007 | NA | 7.73 | 19.30 | NA | 23,220 |
| | 11/16/2007 | NA | 7.64 | 15.38 | NA | 26,932 |
| | 2/21/2008 | NA | 7.90 | 11.24 | NA | 21,356 |
| | 5/27/2008 | NA | 7.70 | 17.46 | NA | 17,546 |

**Notes:**
mg/L = milligrams per liter
°C = degree Celsius
mV = millivolt
µS = microSiemens

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TPH-G | TPH-D[2] | TPH-MO[2] | Benzene[3] | Toluene | Ethylbenzene | Total Xylenes | 1,2-DCA | MTBE | EDB | PCE | TCE | cis-1,2-DCE | trans-1,2-DCE | Acetone | Chloroform | para-Isopropyl Toluene |
| **Inland Zone Groundwater Monitoring Wells** | | | | | | | | | | | | | | | | | | | |
| | | **SSL[1] (µg/L) Inland Groundwater** | **500** | **2,500** | **2,500** | **46** | **130** | **290** | **100** | **200** | **1,800** | **--** | **120** | **360** | **590** | **590** | **1,500** | **330** | **--** |
| MP-2 | 5.5-15.0 | 1/12/2006 | <50 | <50 | <500 | <0.5 | 2.1 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 2/9/2006 | <50 | 87 H | <300 | <0.5 | 2.5 | <0.5 | <1 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 3/14/2006 | <50 | 82 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 4/13/2006 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 8/3/2006 | <50 | 54 H | -- | <0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/30/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/16/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 | 96 H | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-6R | 4.5 - 14.0 | 7/31/2007 | 300 H | 2500 H | 660 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 11 | 0.5 | 0.5 |
| | | 11/16/2007 | 180 H | 1,700 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | 250 H | 1,100 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/28/2008 | 170 HJ | 1,500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 5/28/2008 duplicate | 330 HJ | 1,200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 11/24/2008 | 210 Y | 3100 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2/24/2009 | 150 H | 5200 | 320 Y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 5/7/2009[9] | 120 Y | 2400 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | 110 Y | 2100 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 duplicate | 160 Y | 1,600 Y | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/29/2010 | 110 Y | 1400 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/29/2010 (no SGCU) | -- | 12000 | 2200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/29/10 duplicate | 100 Y | 640 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/29/10 duplicate (no SGCU) | -- | 4,200 | 1,200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | 130 Y | 810 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/29/2011 | <50 | 1,600 Y | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | 4,100 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/27/2012 | 110 Y | 910 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 9/27/2012 | <50 | 430 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/20/2012 | <50 | 290 | <290 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-9 | 3.5 - 13.0 | 12/29/2006 | <50 | 680 H | 570 H | <0.5 | 1.1 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/31/2007 | <50 | 560 H | 630 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/15/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/15/2007 duplicate | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 duplicate | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TPH-G | TPH-D[2] | TPH-MO[2] | Benzene[3] | Toluene | Ethylbenzene | Total Xylenes | 1,2-DCA | MTBE | EDB | PCE | TCE | cis-1,2-DCE | trans-1,2-DCE | Acetone | Chloroform | para-Isopropyl Toluene |
| MP-10 | 4.0 - 13.5 | 12/29/2006 | <50 | 210 H | <300 | <0.5 | 0.7 | <0.5 | 0.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/30/2007 | <50 | 170 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/16/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 duplicate | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-11 | 4.5 - 14.0 | 12/29/2006 | <50 | 54 | <300 | <0.5 | 0.51 | <0.5 | 0.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/30/2007 | <50 | 66 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/16/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/28/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-12 | 4.0 - 13.5 | 7/31/2007 | <50 | 860 H | 500 | <0.5 | 0.6 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/15/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-1 | 5.0 - 12.0 | 6/27/2012 | <50 | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/27/2012 duplicate | <50 | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 9/27/2012 | <50 | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 9/27/2012 duplicate | <50 | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/20/2012 | <50 | <49 | <290 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/20/12 duplicate | <50 | <49 | <290 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Buffer Zone Groundwater Monitoring Wells** | | | | | | | | | | | | | | | | | | | |
| | | **SSL[1] (µg/L) Buffer Zone Groundwater** | **500** | **640** | **640** | **46** | **130** | **290** | **100** | **200** | **1,800** | **--** | **120** | **360** | **590** | **590** | **1,500** | **330** | **--** |
| MP-1R | 4.0 - 13.5 | 7/31/2007 | <50 | 1300 H | 850 | <0.5 | <0.5 | <0.5 | <1 | 0.7 | <0.5 | <0.5 | 1.2 | <0.5 | 0.7 | <0.5 | 14.0 | <0.5 | 0.7 |
| | | 11/16/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | 0.9 | <0.5 | <0.5 | <0.5 | 1.0 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | <50 | 42 H | <240 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/28/2008 | -- | <50 | -- | <0.5 | <0.5 | <0.5 | <1 | 0.7 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/24/2008 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | 0.6 | <0.5 | <0.5 | <0.5 | 0.5 | 1.0 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/7/2009 | -- | 67 Y | <300 | <0.5 | <0.5 | <0.5 | <1 | 0.7 | <0.5 | <0.5 | <0.5 | <0.5 | 1.1 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/21/2009 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 | -- | 71 | <300 | <0.5 | <0.5 | <0.5 | <1 | 0.8 | <0.5 | <0.5 | <0.5 | <0.5 | 1.2 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 (no SGCU) | -- | 5300 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.6 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2011 | -- | 70 Y | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/13/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 6/27/2012 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | <0.5 | <10 | <0.5 | <0.5 |
| | | 9/27/2012 | -- | 52 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/20/2012 | -- | <49 | <290 | <0.5 | <0.5 | <0.5 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | <0.5 | <10 | <0.5 | <0.5 |

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TPH-G | TPH-D[2] | TPH-MO[2] | Benzene[3] | Toluene | Ethylbenzene | Total Xylenes | 1,2-DCA | MTBE | EDB | PCE | TCE | cis-1,2-DCE | trans-1,2-DCE | Acetone | Chloroform | para-Isopropyl Toluene |
| MP-8 | 4.0 - 13.5 | 2/9/2006 | <50 | 320 H | 460 | <0.5 | 0.7 | <0.5 | 0.7 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 3/14/2006 | <50 | 280 H | 390 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 4/13/2006 | <50 | 180 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | -- | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| | | 8/3/2006 | -- | 150 H | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/29/2006 | -- | 290 H | 370 H | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/30/2007 | <50 | 280 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/16/2007 | <50 | <50 | <300 | <0.5 | 0.5 | <0.5 | 0.8 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/20/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/21/2009 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-13A | 4.5 - 11.0 | 7/31/2007 | 61 H | 15000 H | 3,400 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | 6.0 | 1.7 | <10 | <0.5 | <0.5 |
| | | 7/31/2007 duplicate | 65 H | 14000 H | 3,100 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 | 5.6 | 1.6 | <10 | <0.5 | <0.5 |
| | | 8/13/2007[5] | -- | 84 H | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 11/15/2007 | <50 | 52 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 1.7 | 1.1 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | <50 | 150 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | 0.7 | <10 | <0.5 | <0.5 |
| | | 5/28/2008 | -- | <50 | -- | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.9 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/24/2008 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.8 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/7/2009 | -- | 57 Y | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/21/2009 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 (no SGCU) | -- | 4400 | 740 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | 60 Y | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | 1.4 | 0.5 | <10 | <0.5 | <0.5 |
| | | 12/28/2010 duplicate | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | 1.0 | 1.4 | 0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2011 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-13B | 17.5 - 22.0 | 7/31/2007 | <50 | 690 H | 500 | <0.5 | 0.6 | <0.5 | 0.7 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/15/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/28/2008 | -- | <50 | -- | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/21/2009 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/28/2010 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MP-14 | 4.0 - 13.0 | 7/31/2007 | <50 | 540 H | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 7.3 | 3.5 | 7.2 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/15/2007 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 9.3 | 3.7 | 1.5 | <0.5 | <10 | <0.5 | <0.5 |
| | | 2/21/2008 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 5.7 | 2.6 | 0.9 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/27/2008 | -- | <50 | -- | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 5.6 | 3.0 | 0.9 | <0.5 | <10 | <0.5 | <0.5 |
| | | 11/24/2008 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 6.5 | 4.1 | 1.6 | <0.5 | <10 | <0.5 | <0.5 |
| | | 5/7/2009 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 3.6 | 2.6 | 1.0 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/21/2009 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 4.0 | 2.6 | 0.9 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 2.7 | 2.1 | 0.7 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2010 (no SGCU) | -- | 850 Y | 330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 12/28/2010 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 2.0 | 1.9 | 0.6 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2011 | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 1.1 | 1.4 | 0.6 | <0.5 | <10 | <0.5 | <0.5 |
| | | 6/29/2011 duplicate | -- | <50 | <300 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | 1.1 | 1.5 | 0.7 | <0.5 | <10 | <0.5 | <0.5 |
| | | 12/12/2011 | -- | <50 | <300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TPH-G | TPH-D[2] | TPH-MO[2] | Benzene[3] | Toluene | Ethylbenzene | Total Xylenes | 1,2-DCA | MTBE | EDB | PCE | TCE | cis-1,2-DCE | trans-1,2-DCE | Acetone | Chloroform | para-Isopropyl Toluene |
| SMP | Strait | 7/31/2007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 11/16/2007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 2/21/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 4**
**Groundwater Analytical Results Summary**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, 800 Derr Street, Vallejo, California**

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | Concentrations | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Naphthalene[4] | Acenaphthylene | Acenaphthene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo[a] anthracene | Chrysene | Benzo[a] pyrene | TDS (mg/L) | Other (µg/L) |
| **Inland Zone Groundwater Monitoring Wells** | | | | | | | | | | | | | | | |
| | | **SSL[1] (µg/L) Inland Groundwater** | **24** | **30** | **23** | **950** | **410** | **0.73** | **8** | **2** | **5** | **0.35** | **1.9** | **3,000[6]** | |
| MP-2 | 5.5-15.0 | 1/12/2006 | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | <2.1 UJ | -- | -- |
| | | 2/9/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,800 | -- |
| | | 3/14/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 620 | -- |
| | | 4/13/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | -- |
| | | 8/3/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,050 | -- |
| | | 7/30/2007 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.006 | <0.1 | <0.008 | 1,090 | -- |
| | | 11/16/2007 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 920 | -- |
| | | 2/20/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 870 | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,100 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 930 | -- |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 720 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,110 [10] | -- |
| MP-6R | 4.5 - 14.0 | 7/31/2007 | 2.5[7] | 0.4 | 1.6 | 3.4 | 0.9 | 0.2 | 0.2 | 0.1 | 0.03 J | <0.09 | <0.03 | 1,580 | -- |
| | | 11/16/2007 | 0.8[7] | <0.09 | 1.5 | 3.0 | 0.4 | <0.09 | 0.1 | 0.1 | <0.03 | <0.09 | <0.02 | 1,410 | sec-Butylbenzene 0.7<br>n-Butylbenzene 0.7 |
| | | 2/21/2008 | <0.9 | <0.9 | 2.1 | 4.8 | 1.5 | <0.9 | <0.9 | <0.9 | <0.2 | <0.9 | <0.2 | 1,510 | -- |
| | | 5/28/2008 | 0.5 | 0.4 | 1.6 | 3.8 | 0.9 | 0.1 | <0.1 | 0.1 | <0.03 | <0.1 | <0.02 | 1,300 | -- |
| | | 5/28/2008 duplicate | 0.5 | 0.4 | 1.5 | 3.8 | 1.1 | 0.1 | <0.1 | 0.1 | <0.03 | <0.1 | <0.02 | 1,290 | -- |
| | | 11/24/2008 | 0.4 | 0.4 | 1.4 | 3.1 | 0.9 | 0.2 | 0.2 | 0.1 | 0.03 J | <0.09 | <0.09 | 1,310 | -- |
| | | 2/24/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 5/7/2009[9] | 0.2 | 0.3 | 1.4 | 3.0 | 0.9 | 0.3 | 0.3 | 0.2 | 0.05 J | <0.09 | 0.02 J | 1,080 | -- |
| | | 12/21/2009 | <1.0 | <1.0 | <1.0 | 2.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3,180 | -- |
| | | 12/21/2009 duplicate | <1.0 | <1.0 | <1.0 | 2.6 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3,200 | -- |
| | | 6/29/2010 | <0.09 | <0.09 | 1.3 | 2.1 | 0.1 | 0.1 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | 1,820 | -- |
| | | 6/29/2010 (no SGCU) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | 6/29/10 duplicate | <0.09 | <0.09 | 1.2 | 2.1 | 0.1 | 0.2 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | 1,790 | -- |
| | | 6/29/10 duplicate (no SGCU) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | 12/28/2010 | <0.09 | <0.09 | 0.9 | 2.0 | <0.09 | 0.3 | <0.09 | 0.2 | <0.09 | <0.09 | <0.09 | 6,200 | -- |
| | | 6/29/2011 | <0.3 | <0.3 | 0.9 | 0.9 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | 1,940 | -- |
| | | 12/12/2011 | <0.1 | <0.1 | 0.5 | 0.6 | <0.1 | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 | <0.1 | 1,390 [10] | -- |
| | | 6/27/2012 | <0.09 | 0.2 | 0.4 | 0.7 | <0.09 | <0.09 | <0.09 | 0.3 | <0.09 | <0.09 | <0.09 | 2,050 | -- |
| | | 9/27/2012 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 0.2 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | 1240 [10] | -- |
| | | 12/20/2012 | 0.1 | 0.2 | 0.7 | 1.1 | 0.1 | 0.4 | 0.1 | 0.2 | <0.09 | <0.09 | <0.09 | 3,870 [10] | |
| MP-9 | 3.5 - 13.0 | 12/29/2006 | <0.84 | <0.91 | <0.83 | <0.85 | <0.7 | <0.63 | <0.7 | <0.76 | <0.59 | <0.66 | <0.58 | 1,470 | -- |
| | | 7/31/2007 | 0.4 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.03 | 1,230 | -- |
| | | 11/15/2007 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.03 | <0.1 | <0.02 | 1,040 | -- |
| | | 11/15/2007 duplicate | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 1,040 | -- |
| | | 2/20/2008 | 0.2 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 1,010 | -- |
| | | 5/27/2008 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.03 | <0.1 | <0.02 | 1,180 | -- |
| | | 12/21/2009 | <0.09 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,040 | -- |
| | | 12/28/2010 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,100 | -- |
| | | 12/12/2011 | <0.09 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,280 [10] | -- |
| | | 12/12/2011 duplicate | <0.09 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,260 [10] | -- |

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | Concentrations | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Naphthalene[4] | Acenaphthylene | Acenaphthene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo[a] anthracene | Chrysene | Benzo[a] pyrene | TDS (mg/L) | Other (µg/L) |
| MP-10 | 4.0 - 13.5 | 12/29/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,570 | -- |
| | | 7/30/2007 | 0.3 | <0.09 | 0.1 | 0.3 | 0.2 | <0.09 | 0.1 | 0.1 | <0.006 | <0.09 | <0.008 | 1,770 | -- |
| | | 11/16/2007 | <0.09 | <0.09 | 0.2 | 0.3 | <0.09 | <0.09 | 0.1 | <0.09 | <0.03 | <0.09 | <0.02 | 1,850 | -- |
| | | 2/20/2008 | <0.09 | <0.09 | 0.1 | 0.2 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 1,380 | -- |
| | | 2/20/2008 duplicate | <0.1 | <0.1 | 0.1 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.02 | <0.1 | <0.02 | 1,390 | -- |
| | | 5/27/2008 | <0.1 | <0.1 | 0.2 | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.03 | <0.1 | <0.02 | 1,650 | -- |
| | | 12/21/2009 | <0.09 | <0.09 | 0.2 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,500 | -- |
| | | 12/28/2010 | <0.09 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,390 | -- |
| | | 12/12/2011 | <0.09 | <0.09 | 0.2 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,660 [10] | -- |
| MP-11 | 4.5 - 14.0 | 12/29/2006 | <0.85 | <0.92 | <0.84 | <0.86 | <0.7 | <0.63 | <0.71 | <0.77 | <0.59 | <0.67 | <0.59 | 440 | -- |
| | | 7/30/2007 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.006 | <0.1 | <0.008 | 340 | -- |
| | | 11/16/2007 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 380 | -- |
| | | 2/20/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 330 | -- |
| | | 5/28/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 320 | -- |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 610 [10] | |
| MP-12 | 4.0 - 13.5 | 7/31/2007 | 11[7] | 0.1 | 3.6 | 1 | 0.7 | 0.2 | 0.2 | 0.2 | 0.01 J | <0.1 | <0.008 | 5,070 | -- |
| | | 11/15/2007 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 850 | -- |
| | | 2/21/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 470 | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,680 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 710 | -- |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 340 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2,750 [10] | -- |
| EW-1 | 5.0 - 12.0 | 6/27/2012 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 740 | -- |
| | | 6/27/2012 duplicate | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 760 | -- |
| | | 9/27/2012 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 660 | -- |
| | | 9/27/2012 duplicate | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 660 [10] | -- |
| | | 12/20/2012 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,040 [10] | |
| | | 12/20/12 duplicate | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,060 [10] | |
| **Buffer Zone Groundwater Monitoring Wells** | | | | | | | | | | | | | | | |
| **SSL[1] (µg/L) Buffer Zone Groundwater** | | | **24** | **30** | **23** | **3.9** | **4.6** | **0.73** | **8** | **2** | **0.027** | **0.35** | **0.014** | **3,000[6]** | |
| MP-1R | 4.0 - 13.5 | 7/31/2007 | 3.3[7] | 0.1 | 1.1 | 0.4 | <0.1 | 0.1 | 0.5 | 0.4 | 0.02 J | <0.1 | <0.03 | 10,500 | -- |
| | | 11/16/2007 | 1.4 | 0.1 | 5.2 | 3.6 | 4.7 | 0.5 | 0.6 | 0.4 | <0.03 | <0.09 | <0.02 | 10,300 | -- |
| | | 2/21/2008 | 0.9 | <0.09 | 2.8 | 2.1 | 2.3 | 0.3 | 0.4 | 0.3 | <0.02 | <0.09 | <0.02 | 10,500 | -- |
| | | 5/28/2008 | 0.4 | <0.1 | 3.0 | 1.9 | 1.2 | 0.2 | 0.3 | 0.3 | <0.03 | <0.1 | <0.02 | 11,700 | -- |
| | | 11/24/2008 | 0.37 | 0.1 | 4.9 | 0.9 | 0.4 | 0.3 | 0.6 | 0.3 | <0.02 | <0.1 | <0.02 | 10,700 | -- |
| | | 5/7/2009 | 0.6[8] | <0.1 | 3.5 | 0.2 | <0.1 | 0.1 | 0.3 | 0.2 | <0.02 | <0.1 | <0.02 | 10,100 | -- |
| | | 12/21/2009 | 0.5 | <0.09 | 5.1 | 0.7 | 1.1 | 0.3 | 0.5 | 0.3 | <0.09 | <0.09 | <0.09 | 10,900 | -- |
| | | 6/29/2010 | 0.2 | 0.1 | 3.5 | <0.09 | <0.09 | 0.4 | 0.4 | 0.2 | <0.09 | <0.09 | <0.09 | 10,000 | -- |
| | | 6/29/2010 (no SGCU) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | 12/28/2010 | 0.1 | <0.09 | 2.6 | 0.4 | 1.1 | 0.3 | 0.6 | 0.4 | <0.09 | <0.09 | <0.09 | 11,500 | -- |
| | | 6/29/2011 | <0.3 | <0.3 | 4.4 | <0.3 | <0.3 | 0.4 | 0.5 | 0.3 | <0.3 | <0.3 | <0.3 | 10,000 | -- |
| | | 12/13/2011 | 0.2 | <0.09 | 3.1 | 0.1 | <0.09 | 0.1 | 0.4 | 0.3 | <0.09 | <0.09 | <0.09 | 10,500 [10] | -- |
| | | 6/27/2012 | <0.09 | 0.1 | 3.7 | <0.09 | <0.09 | 0.4 | 0.5 | 0.3 | <0.09 | <0.09 | <0.09 | 9,520 | -- |
| | | 9/27/2012 | <2.0 | 0.2 | 4.2 | 0.1 | <0.09 | 0.4 | 0.4 | 0.3 | <0.09 | <0.09 | <0.09 | 9,020 [10] | -- |
| | | 12/20/2012 | 0.2 | 0.09 | 4.0 | 0.09 | <0.09 | 0.2 | 0.3 | 0.2 | <0.09 | <0.09 | <0.09 | 10,800 [10] | |

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | Concentrations | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Naphthalene[4] | Acenaphthylene | Acenaphthene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo[a] anthracene | Chrysene | Benzo[a] pyrene | TDS (mg/L) | Other (µg/L) |
| MP-8 | 4.0 - 13.5 | 2/9/2006 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 13,300 | -- |
| | | 3/14/2006 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 2,970 | -- |
| | | 4/13/2006 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | 1,940 | -- |
| | | 8/3/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8,830 | -- |
| | | 12/29/2006 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7/30/2007 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.006 | <0.1 | <0.008 | 14,400 | -- |
| | | 11/16/2007 | 1.8[7] | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 12,900 | -- |
| | | 2/20/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 12,600 | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12,300 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 18,800 | -- |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7,900 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9,280 [10] | |
| MP-13A | 4.5 - 11.0 | 7/31/2007 | <0.9 | <0.9 | <0.9 | <0.9 | <0.9 | <0.9 | <0.9 | <0.9 | <0.06 | <0.9 | <0.08 | 8,050 | -- |
| | | 7/31/2007 duplicate | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <0.06 | <1.0 | <0.08 | 7,660 | -- |
| | | 8/13/2007[5] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 11/15/2007 | <0.09 | <0.09 | 0.1 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 8,920 | -- |
| | | 2/21/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 7,230 | -- |
| | | 5/28/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5,330 | -- |
| | | 11/24/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6,510 | -- |
| | | 5/7/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5,540 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5,200 | -- |
| | | 6/29/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4,660 | -- |
| | | 6/29/2010 (no SGCU) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4,950 | -- |
| | | 12/28/2010 duplicate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5,090 | -- |
| | | 6/29/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3,820 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5,040 [10] | -- |
| MP-13B | 17.5 - 22.0 | 7/31/2007 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.006 | <0.1 | <0.008 | 11,200 | -- |
| | | 11/15/2007 | 0.6[7] | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.03 | <0.1 | <0.02 | 11,200 | -- |
| | | 2/21/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 10,100 | -- |
| | | 5/28/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13,100 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10,800 | -- |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10,800 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10,400 [10] | -- |
| MP-14 | 4.0 - 13.0 | 7/31/2007 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.006 | <0.1 | <0.008 | 14,400 | -- |
| | | 11/15/2007 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.03 | <0.09 | <0.02 | 18,400 | -- |
| | | 2/21/2008 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.09 | <0.02 | <0.09 | <0.02 | 11,200 | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13,000 | -- |
| | | 11/24/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11,900 | -- |
| | | 5/7/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9,080 | -- |
| | | 12/21/2009 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11,700 | -- |
| | | 6/29/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10,000 | -- |
| | | 6/29/2010 (no SGCU) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | 12/28/2010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11,900 | -- |
| | | 6/29/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8,160 | -- |
| | | 6/29/2011 duplicate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8,280 | -- |
| | | 12/12/2011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8,960 [10] | -- |

**Table 4**
**Groundwater Analytical Results Summary**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, 800 Derr Street, Vallejo, California**

| Well ID | Screen Depth (feet btoc) | Sample Date | Concentrations (µg/L) | | | | | | | | | | | Concentrations | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Naphthalene[4] | Acenaphthylene | Acenaphthene | Fluorene | Phenanthrene | Anthracene | Fluoranthene | Pyrene | Benzo[a] anthracene | Chrysene | Benzo[a] pyrene | TDS (mg/L) | Other (µg/L) |
| SMP | Strait | 7/31/2007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 18,800 | -- |
| | | 11/16/2007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 24,400 | -- |
| | | 2/21/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 15,200 | -- |
| | | 5/27/2008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 18,800 | -- |

**Notes:**

[1] Site-specific screening levels (SSLs), as reported in the March 2007 *Human Health and Ecological Exposure Analysis, Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, CA.*

[2] Samples analyzed on and after 8/13/2007 included silica gel cleanup (USEPA Method 3630C) as a preparation method.

[3] Other VOCs listed under USEPA Method 8260 and not included in this summary table were reported by the laboratory to be below their respective analytical method reporting limits.

[4] Reported as USEPA Method 8270 result unless otherwise noted.

[5] Sample analyzed after silica gel cleanup (USEPA Method 3630C).

[6] Tier 1 ESL is used; a Site-specific ESL was not calculated for this compound.

[7] Reported as a lesser value or as non-detect by USEPA Method 8270. Reported at value listed by USEPA Method 8260.

[8] Laboratory reported naphthalene at 0.7 µg/L by US EPA method 8260B.

[9] Well was purged using low-flow and "standard" purge methods, as described in report. TPH-D concentration following standard purge method was 4,900 µg/L.

[10] Relative percent difference between batch spike and batch spike duplicate exceeded laboratory's acceptable range.

320

18,800

-- = Not analyzed
µg/L = micrograms per liter
mg/L = milligrams per liter
btoc = below top of casing
H = Hydrocarbon chromatographic pattern does not match standard
J = Estimated value
Y = Sample exhibits chromatographic pattern which does not resemble standard

TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel Fuel
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
1,2-DCA = 1,2-Dichloroethane
MTBE = Methyl-tert-butyl ether
EDB = 1,2-Dibromoethane

PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
TDS = Total Dissolved Solids

**Table 5**
**Comparison of TPH-D Results with and without Silica Gel Cleanup**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Sample Date | Screen Depth (feet btoc) | Depth to Bay Mud (feet bgs) | Concentration (µg/L) | |
|---|---|---|---|---|---|
| | | | | TPH (C10-C24) pre-filtering[1] | TPH (C10-C24) post-filtering[2] |
| **Inland Groundwater Screening Level[3] (µg/L)** | | | | **2,500** | |
| MP-2 | 1/12/2006 | 5.5-15.0 | >15 | <50 | -- |
| | 2/9/2006 | | | 87 | -- |
| | 3/14/2006 | | | 82 | -- |
| | 4/13/2006 | | | <50 | -- |
| | 8/3/2006 | | | 54 | -- |
| | 7/30/2007 | | | <50 | -- |
| | 11/16/2007 | | | -- | <50 |
| | 2/20/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 12/21/2009 | | | <50 | <50 |
| | 12/28/2010 | | | <50 | <50 |
| | 12/12/2011 | | | <50 | <50 |
| MP-6R | 7/31/2007 | 4.5 - 14.0 | 13.5 | 2,500 | -- |
| | 11/16/2007 | | | 1,700 | -- |
| | 2/21/2008 | | | -- | 1,100 |
| | 5/28/2008 | | | -- | 1,500 / 1,200 |
| | 11/24/2008 | | | -- | 3,100 |
| | 2/24/2009 | | | -- | 5,200 |
| | 5/7/20098 | | | -- | 2,400 |
| | 12/21/2009 | | | 20,000 / 19,000 | 2,100 / 1,600 |
| | 6/29/2010 | | | 12,000 / 4,200 | 1,400 / 640 |
| | 12/28/2010 | | | 13,000 | 810 |
| | 6/29/2011 | | | 10,000 Y | 1,600 Y |
| | 12/12/2011 | | | 7,800 | 4,100 |
| | 6/27/2012 | | | 5,300 | 910 |
| | 9/27/2012 | | | 2,400 | 430 |
| | 12/20/2012 | | | 4,100 Y | 290 |
| MP-9 | 12/29/2006 | 3.5 - 13.0 | 8.5 | 680 | -- |
| | 7/31/2007 | | | 560 | -- |
| | 11/15/2007 | | | -- | <50 |
| | 2/20/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 12/21/2009 | | | 500 | <50 |
| | 12/28/2010 | | | 480 | <50 |
| | 12/12/2011 | | | 780 Y / 650 Y | <50 / <50 |
| MP-10 | 12/29/2006 | 4.0 - 13.5 | 14 | 210 | -- |
| | 7/30/2007 | | | 170 | -- |
| | 11/16/2007 | | | -- | <50 |
| | 2/20/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 12/21/2009 | | | 310 | <50 |
| | 12/28/2010 | | | 310 | <50 |
| | 12/12/2011 | | | 360 Y | <50 |
| MP-11 | 12/29/2006 | 4.5 - 14.0 | >15 | 54 | -- |
| | 7/30/2007 | | | 66 | -- |
| | 11/16/2007 | | | -- | <50 |
| | 2/20/2008 | | | -- | <50 |
| | 5/28/2008 | | | -- | <50 |
| | 12/21/2009 | | | <50 | <50 |
| | 12/28/2010 | | | <50 | <50 |
| | 12/12/2011 | | | 58 Y | <50 |

**Table 5**
**Comparison of TPH-D Results with and without Silica Gel Cleanup**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Sample Date | Screen Depth (feet btoc) | Depth to Bay Mud (feet bgs) | Concentration (µg/L) | |
|---|---|---|---|---|---|
| | | | | TPH (C10-C24) pre-filtering[1] | TPH (C10-C24) post-filtering[2] |
| MP-12 | 7/31/2007 | 4.0 - 13.5 | 13.5 | 860 | -- |
| | 11/15/2007 | | | -- | <50 |
| | 2/21/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 12/21/2009 | | | 910 | <50 |
| | 12/28/2010 | | | 520 | <50 |
| | 12/12/2011 | | | 1,300 Y | <50 |
| EW-1 | 6/27/2012 | 5.0 - 12.0 | >15 | 480 Y | <50 |
| | 9/27/2012 | | | 450 | <50 |
| | 12/20/2012 | | | 460 Y | <49 |
| **Buffer Zone Groundwater Screening Level[3] (µg/L)** | | | | **640** | |
| MP-1R | 7/31/2007 | 4.0 - 13.5 | 12 | 1,300 H | -- |
| | 11/16/2007 | | | -- | <50 |
| | 2/21/2008 | | | -- | 42 |
| | 5/28/2008 | | | -- | <50 |
| | 11/24/2008 | | | -- | <50 |
| | 5/7/2009 | | | -- | 67 |
| | 12/21/2009 | | | 720 | <50 |
| | 6/29/2010 | | | 5,300 | 71 |
| | 12/28/2010 | | | 670 | <50 |
| | 6/29/2011 | | | 7,500 Y | 70 Y |
| | 12/13/2011 | | | 1,500 | <50 |
| | 6/27/2012 | | | 5,700 | <50 |
| | 9/27/2012 | | | 4,100 | 52 Y |
| | 12/20/2012 | | | 1,900 Y | <49 |
| MP-8 | 2/9/2006 | 4.0 - 13.5 | >15 | 320 | -- |
| | 3/14/2006 | | | 280 | -- |
| | 4/13/2006 | | | 180 | -- |
| | 8/3/2006 | | | 150 | -- |
| | 12/29/2006 | | | 290 | -- |
| | 7/30/2007 | | | 280 | -- |
| | 11/16/2007 | | | -- | <50 |
| | 2/20/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 12/21/2009 | | | 100 | <50 |
| | 12/28/2010 | | | 59 | <50 |
| | 12/12/2011 | | | 190 Y | <50 |
| MP-13A | 7/31/2007 | 4.5 - 11.0 | 12 | 15,000 / 14,000 | -- |
| | 8/13/2007 | | | | 84 |
| | 11/15/2007 | | | -- | 52 |
| | 2/21/2008 | | | -- | 150 |
| | 5/28/2008 | | | -- | <50 |
| | 11/24/2008 | | | -- | <50 |
| | 5/7/2009 | | | -- | 57 |
| | 12/21/2009 | | | 4,300 | <50 |
| | 6/29/2010 | | | 4,400 | <50 |
| | 12/28/2010 | | | 4,600 / 5,400 | 60/<50 |
| | 6/29/2011 | | | 5,300 Y | <50 |
| | 12/12/2011 | | | 3,500 Y | <50 |

**Table 5**
**Comparison of TPH-D Results with and without Silica Gel Cleanup**
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

| Well ID | Sample Date | Screen Depth (feet btoc) | Depth to Bay Mud (feet bgs) | Concentration (µg/L) | |
|---|---|---|---|---|---|
| | | | | TPH (C10-C24) pre-filtering[1] | TPH (C10-C24) post-filtering[2] |
| MP-13B | 7/31/2007 | 17.5 - 22.0 | 12 | 690 | -- |
| | 11/15/2007 | | | -- | <50 |
| | 2/21/2008 | | | -- | <50 |
| | 5/28/2008 | | | -- | <50 |
| | 12/21/2009 | | | 1,000 | <50 |
| | 12/28/2010 | | | 760 | <50 |
| | 12/12/2011 | | | 1,000 Y | <50 |
| MP-14 | 7/31/2007 | 4.0 - 13.0 | >15 | 540 | -- |
| | 11/15/2007 | | | -- | <50 |
| | 2/21/2008 | | | -- | <50 |
| | 5/27/2008 | | | -- | <50 |
| | 11/24/2008 | | | -- | <50 |
| | 5/7/2009 | | | -- | <50 |
| | 12/21/2009 | | | 670 | <50 |
| | 6/29/2010 | | | 850 | <50 |
| | 12/28/2010 | | | 890 | <50 |
| | 6/29/2011 | | | 510 Y / 520 Y | <50 / <50 |
| | 12/12/2011 | | | 790 Y | <50 |

Shaded values represent pre-excavation groundwater analytical results

Y = Sample exhibits chromatographic pattern which does not resemble standard

1 pre-filtering is before silica gel cleanup removes polar organic compounds

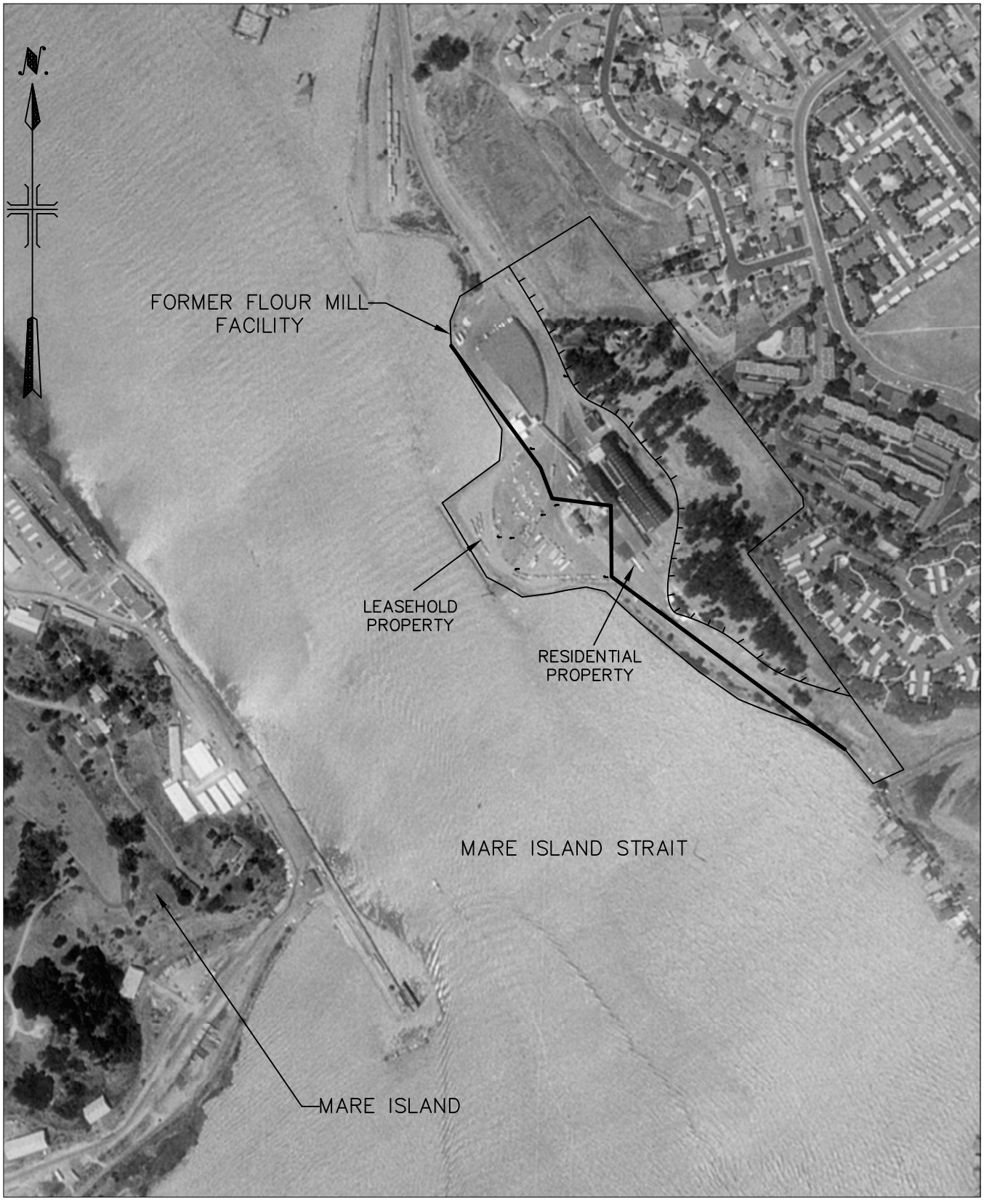
2 post-filtering is after silica gel cleanup removes polar organic compounds

**General Mills Operations, Inc.**
Fourth Quarter 2012 Groundwater Monitoring Report
Leasehold Property, Former Flour Mill Facility
800 Derr Street, Vallejo, California

# Figures

2626018

MALCOLM PIRNIE




**NOTES**

AERIAL PHOTO FROM THE CALIFORNIA SPATIAL INFORMATION LIBRARY. CALIFORNIAL DIGITAL ORTHO (QUARTER) QUADS DOQQS (GEOTIFF FORMAT).
/ APPROXIMATE PROPERTY BOUNDARY
HILLSIDE

SCALE IN FEET
0 250 500 1000

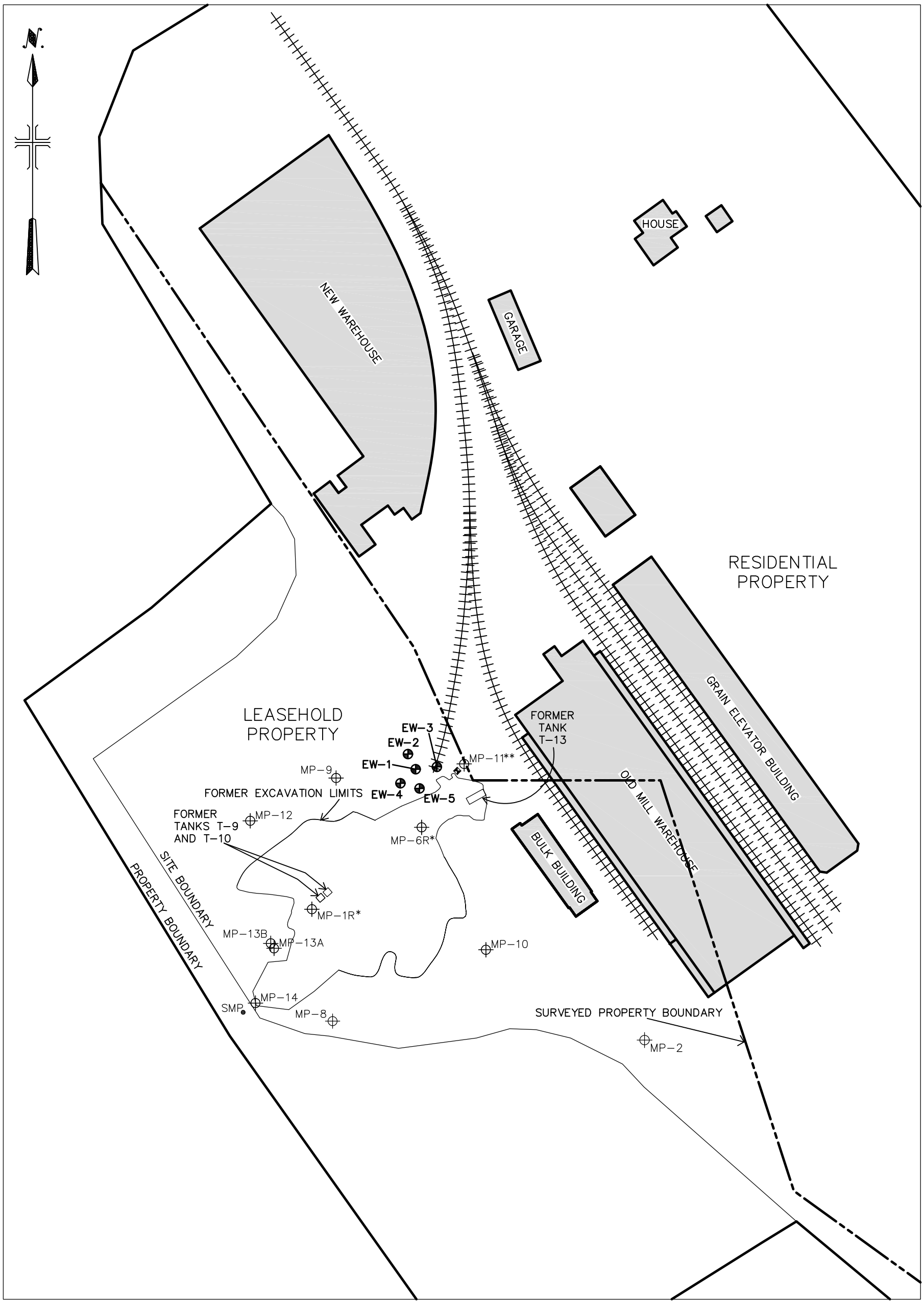
MALCOLM PIRNIE

800 DERR STREET
VALLEJO, CA
FORMER FLOUR MILL FACILITY

SITE LOCATION MAP

FEBRUARY 2013
FIGURE 1

User: Orsi Spec: PIRNIE STANDARD File: C:\Documents and Settings\orsi\Desktop\GM\4th Qtr 2012\FIGURE 1.DWG




## LEGEND

MP-2 ⊕ MONITORING WELL – EXISTING

● EXTRACTION WELL

◆ SOIL BORING

*MP-1R AND MP-6R ARE REPLACEMENT WELLS FOR MP-1 AND MP-6, RESPECTIVELY, INSTALLED AT SAME LOCATION AS ORIGINAL WELLS.

**LITHOLOGIC DESCRIPTION AND SOIL ANALYTICAL SAMPLE FROM SOIL BORING MP-11. WELL MP-11 IS LOCATED APPROXIMATELY 10' NORTHEAST OF SOIL BORING MP-11.

• "SMP" IS STATIC MONITORING POINT

## NOTES

LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.

SCALE IN FEET

0 50 100 200

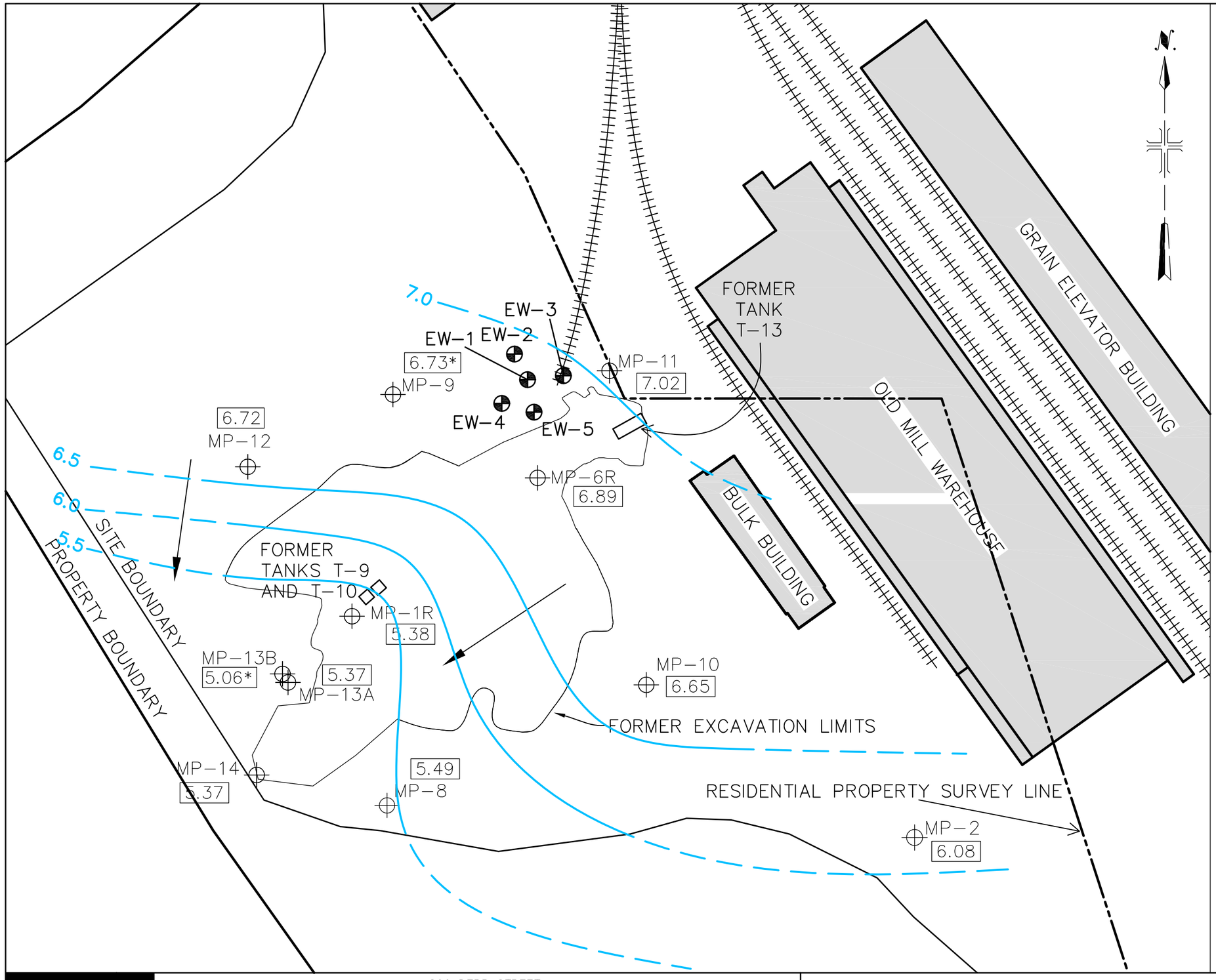
MALCOLM PIRNIE

800 DERR STREET
VALLEJO, CA

FORMER FLOUR MILL FACILITY

FACILITY PLAN
MONITORING WELL LOCATIONS

FEBRUARY 2013
FIGURE 2




***LEGEND***

- MP-2 ⊕ MONITORING WELL
- 6.08 GROUNDWATER ELEVATION (ft msl)
  - measured on December 20, 2012
  - "ft msl" = "feet above mean sea level"
- * MEASUREMENT NOT USED FOR CONTOURING
- ⊕ EXTRACTION WELL
- APPROXIMATE SHALLOW GROUNDWATER SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
- DIRECTION OF GROUNDWATER FLOW

***NOTES***

LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.

SCALE IN FEET

0 30 60 120

MALCOLM PIRNIE

800 DERR STREET
VALLEJO, CA

FORMER FLOUR MILL FACILITY

SHALLOW GROUNDWATER SURFACE ELEVATION
CONTOUR MAP – DECEMBER 2012

FEBRUARY 2013
FIGURE 3

BUFFER ZONE

| EW–1 | |
|---|---|
| TPH–G | ND |
| TPH–D | ND |
| TPH–MO | ND |
| PAHs | ND |

EW–3
EW–2
MP–11
MP–9
EW–4
EW–5
MP–12
MP–6R

| MP–6R | |
|---|---|
| TPH–G | ND |
| TPH–D | 290 |
| TPH–MO | ND |
| Naphthalene | 0.1 |
| Acenapthylene | 0.2 |
| Acenaphthene | 0.7 |
| Fluorene | 1.1 |
| Phenanthrene | 0.1 |
| Anthracene | 0.4 |
| Fluoranthene | 0.1 |
| Pyrene | 0.2 |

FORMER TANK T–13
GRAIN ELEVATOR BU
OLD MILL WAREHOUSE
BULK BUILDING
FORMER TANKS T–9 AND T–10
MP–1R
MP–13B
MP–13A
SITE BOUNDARY
PROPERTY BOUNDARY
FORMER EXCAVATION LIMITS
MP–14
MP–8

| MP–1R | |
|---|---|
| TPH–D | ND |
| TPH–MO | ND |
| cis–1,2–DCE | 1.0 |
| Other VOCs | ND |
| Naphthalene | 0.2 |
| Acenaphthylene | 0.09 |
| Acenaphthene | 4.0 |
| Fluorene | 0.09 |
| Anthracene | 0.2 |
| Fluoranthene | 0.3 |
| Pyrene | 0.2 |

RESIDENTIAL PROPERTY SURVEY LINE
MP–2
BUFFER ZONE

N

## LEGEND

MP–2 ⊕ MONITORING WELL

*WELLS MP–1R AND MP–6R INSTALLED IN EXCAVATION BACKFILL AREAS

⊕ EXTRACTION WELL

| WELL ID | |
|---|---|
| CONSTITUENT | CONCENTRATION (ug/L) |

–TABLES INCLUDE CONSTITUENTS REPORTED ABOVE ANALYTICAL METHOD REPORTING LIMITS.

–PLEASE SEE TABLE 4 FOR COMPLETE ANALYTICAL RESULTS AND NOTES.

ND = NO CONSTITUENTS IDENTIFIED ABOVE THEIR RESPECTIVE ANALYTICAL METHOD REPORTING LIMITS

BUFFER ZONE BOUNDARY

## NOTES

LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.

SCALE IN FEET

0 30 60 120

MALCOLM PIRNIE

800 DERR STREET
VALLEJO, CA

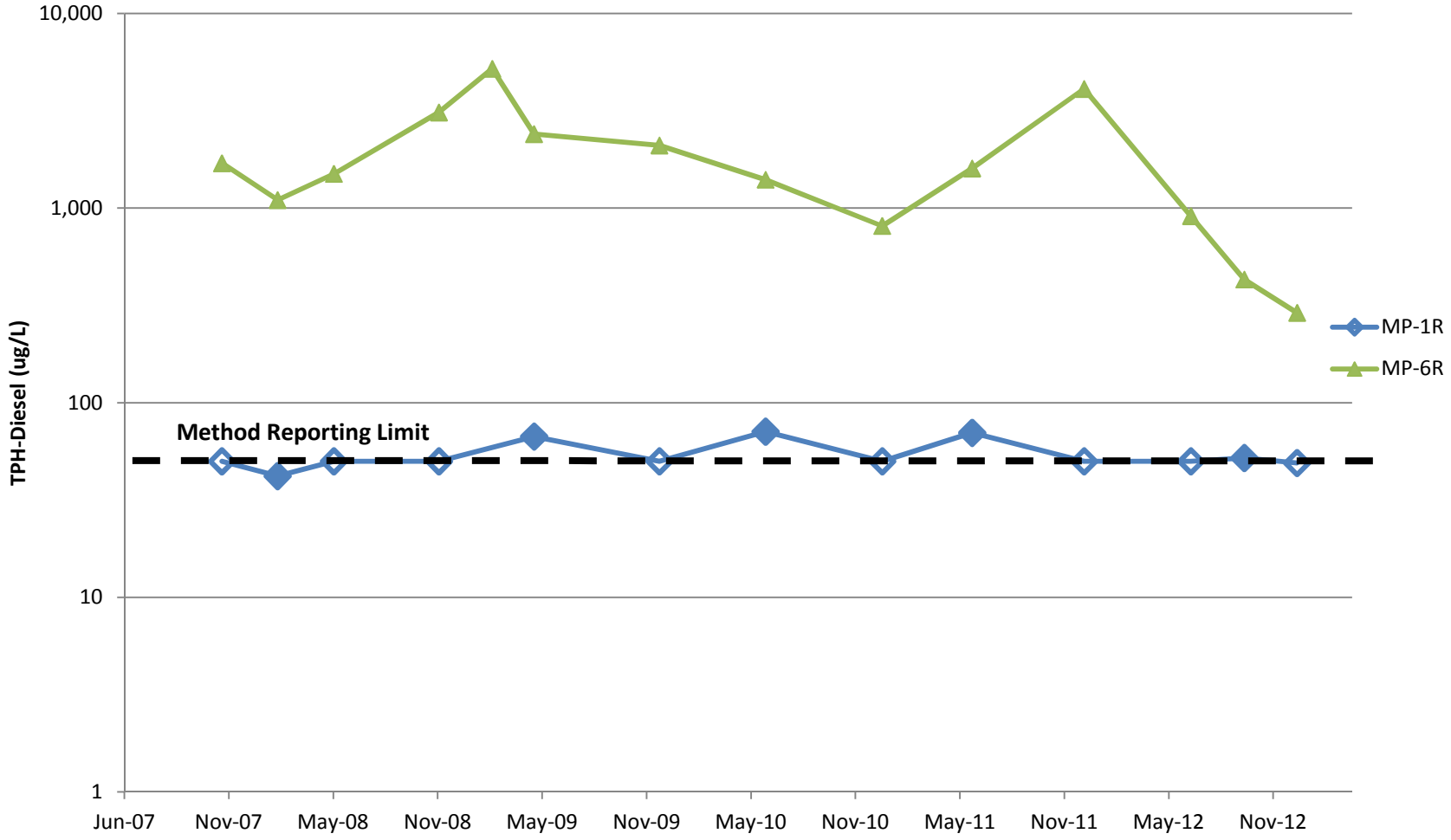
FORMER FLOUR MILL FACILITY

DETECTABLE CONSTITUENTS OF CONCERN
IN GROUNDWATER – DECEMBER 2012

FEBRUARY 2013
FIGURE 4

User: Orsi Spec: PIRNIE STANDARD File: G:\Projects\02626013\acad\4th Qtr 2012\FIGURE 4.DWG

**Figure 5. TPH-D Concentration Versus Time**
**Fourth Quarter 2012 Groundwater Monitoring Report, February 2013**
**Leasehold Property, 800 Derr Street, Vallejo, California**




Notes:
1. Includes only data collected on or after August 13, 2007, when use of silica gel cleanup was first implemented as a standard procedure for TPH-D analysis at the Site.
2. Values reported by the laboratory as "non-detect" are plotted with an "open" (no color) symbol.

**General Mills Operations, Inc.**
Fourth Quarter 2012 Groundwater Monitoring Report
Leasehold Property, Former Flour Mill Facility
800 Derr Street, Vallejo, California

# Appendix A
# Field Activity Report

2626018

MALCOLM PIRNIE

Environmental
Sampling Services, LLC

December 28, 2012

Mr. Todd Miller
Principal Geologist
ARCADIS U.S., Inc.
2999 Oak Road, Suite 300
Walnut Creek, California 94597

**SUBJECT: December 2012 Quarterly Groundwater Monitoring Program for Former General Mills Site, Vallejo, California**

Dear Mr. Miller,

Please find enclosed the Field Activity Report for the December 2012 quarterly groundwater monitoring event that occurred at 800 Derr Street, Vallejo, California. The report contains all pertinent documentation associated with this monitoring event.

If you have any questions or concerns regarding this Field Activity Report, please do not hesitate to contact Stephen Penman directly at spen@envsampling.com or at (925) 372-8108.

Sincerely,
**Environmental Sampling Services, LLC**

Jacqueline Lee
Manager

**Enclosure**

cc: Sarah Carman (e-mail only)

# FIELD ACTIVITY REPORT
**FOR**

**DECEMBER 2012**
**QUARTERLY GROUNDWATER**
**MONITORING EVENT**

**FORMER GENERAL MILLS SITE**
**800 DERR STREET**
**VALLEJO, CALIFORNIA**

Prepared for: ARCADIS U.S., Inc.
2999 Oak Road, Suite 300
Walnut Creek, California 94597

Date Prepared: December 28, 2012

Environmental
Sampling Services, LLC

# FIELD ACTIVITY REPORT
## FOR

## DECEMBER 2012
## QUARTERLY GROUNDWATER
## MONITORING EVENT

## FORMER FLOUR MILL
## 800 DERR STREET
## VALLEJO, CALIFORNIA

**Task 1:** Depth to groundwater level measurements for sixteen well locations
**Task 2:** Daily Shoreline Inspection
**Task 3:** Monitor and sample three wells (MP-1R, MP-6R, and EW-1)
**ESS Personnel:** Stephen Penman and Jacqueline Lee (GWL measurements and Shore Inspection)
**Date of Activities:** December 20, 2012

### *Decontamination Procedures*

All reusable downhole equipment was cleaned with Liqui-Nox® laboratory grade soap, potable water, and rinsed with distilled water prior to use and between each well.

### *Groundwater Level Measurements*

Depth to groundwater was measured and recorded for sixteen well locations prior to any purging activities. Each well was allowed to equilibrate to atmospheric pressure for more than thirty minutes. All readings were measured with a Solinst® Oil/Water Interface Meter, Serial Number 9371-1. Three successive readings that agreed to within one-hundredth of a foot determined depth to groundwater (Table 1). All measurements were referenced to the surveyor's mark or north rim on the well casing.

Floating product was not detected in any of the monitoring wells.

### *Daily Shoreline Inspection*

One daily shoreline inspection was performed during this monitoring event. Inspection was performed from 09:30 to 09:50 a.m. December 20, 2012 and there was no evidence of any sheen or product on the surface water emanating from the site.

### *Field Equipment Calibration*

A multi-parameter meter, equipped with an in-line flow through cell, and Turbidity meter were used for monitoring purposes.

Equipment calibration was performed in accordance with the instruments' calibration and operating

procedures. The following standard solutions were used for calibration purposes: pH 4, 7, and 10; 1,000 µS/cm[c] for Specific Conductivity and Zobell® for Oxidation Reduction Potential (ORP). Dissolved Oxygen (DO) was calibrated to air (100% saturation). Turbidity was checked against a 0.02 Nephelometric (NTU) standard.

### *Water Quality Indicator Parameters*

The following indicator parameters were monitored and recorded during purging activities: pH, Specific Conductivity (µS/cm[c]), DO (mg/L), ORP (mV), Turbidity (NTU), and Temperature (Celsius). Physical parameters such as drawdown, color, and odor were also recorded (see Water Quality Sample Log Sheets).

### *Well Purging Procedures*

Three wells (MP-1R, MP-6R, and EW-1) were purged using a peristaltic pump with dedicated tubing. Pump intake was approximately set to the middle of the screen interval.

Each well was purged following procedures recommended by the United States Environmental Protection Agency Low Flow (Minimal Drawdown) Ground-Water Sampling Procedures, revised 1998. Each well was purged at a rate no greater than 1000-ml per minute until water quality parameters stabilized.

EPA recommended stabilization guidelines for low-flow sampling were used. Stabilization was achieved after the indicator parameters stabilized for three successive readings. The following criteria were used: ± 0.1 for pH, ± 3 % for Specific Conductivity, ± 0.3 mg/L for Dissolved Oxygen, ± 10 mV for ORP, and ± 0.2°C for Temperature.

The following criteria were used to determine turbidity stabilization:

0-10 NTU, no criterion
10-50 NTU, ±5 NTU
more than 50 NTU, ±10% NTU

### *Well Sampling Procedures*

The wells were sampled following stabilization of water quality parameters. The pump tubing was disconnected from the in-line flow through cell for sample collection. Low-flow rate established during purging was maintained during sampling.

### *Laboratory and Chemical Analyses*

Curtis & Tompkins, Ltd. Laboratory (CTL) of Berkeley, California provided Trip Blank sets and all sample containers.

The wells were sampled for a combination of following chemical analyses: Volatile Organic Compounds (EPA Method 8260B), TPH-Gasoline (EPA Method 8015B), TPH-Diesel & Motor Oil (EPA 8015B) with and without Silica Gel Cleanup, Poly Nuclear Aromatics (PNAs) by EPA Method 8270-SIM, and Total Dissolved Solids (TDS) by EPA Method 160.1

### *Sample Containers*

Each VOCs, BTEX/MTBE, or TPH-Gasoline sample set was contained in three 40-ml VOA containers preserved with Hydrochloric Acid.

Each TPH-Diesel & Motor Oil sample set was contained in two, non-preserved, 500-ml amber glass containers.

Each PNA sample set was contained in two, non-preserved, one-liter amber glass containers.

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Each TDS sample was contained in a non-preserved, 250-ml High Density Polyethylene (HDPE) container.

### *Sample Handling*

All sample labels were completed with waterproof ink and affixed to sample containers.

All sample containers were filled to maximum capacity.

All sample containers were wiped dry, sealed in Ziploc® bags, and placed in chilled coolers for storage and shipment.

### *Quality Assurance /Quality Control (QA/QC) Samples*

**Trip Blank:**
One Trip Blank set was submitted to CTL for VOCs analyses.

**Duplicate:**
One duplicate sample was collected from monitoring well EW-1 for analyses. The duplicate sample was labeled "EW-1-DUP". Each non-volatile duplicate was collected by filling the primary sample container until one-half full, and then alternating to the designated duplicate sample container until the same volume was collected. The alternating procedure continued until maximum capacity was achieved. The duplicate sample is documented on the appropriate Water Quality Sample Log Sheet.

No other QA/QC samples were requested.

### *Chain of Custody (COC)*

All sample handling was conducted under standard Geotracker chain of custody procedures. The COC included: sampler's name and signature, sample identification, field point names, sample date and time, and analysis request section. Hard Copy, PDF, EDD, and EDF reporting formats were requested.

### *Sample Delivery*

All samples remained in ESS's possession and were relinquished to CTL December 20, 2012.

### *Disposal of Wastewater*

All purged groundwater and decontamination water was transferred into the site sanitary manhole for disposal.

***Comments***

A slight sulfuric-like odor was noted at MP-1R.

Suspended organic debris, orange in color, was noted in the purgewater from EW-1.

All work was performed according to the ARCADIS's Sampling Task Order executed June 19, 2011 and all subsequent directives issued by ARCADIS relating to the December 2012 monitoring event.

**Environmental Sampling Services, LLC**

Jacqueline Lee
Manager

Attachments:
Table 1: Summary of December 2012 Quarterly Groundwater Monitoring Event
Water Quality Sample Log Sheets
Daily Equipment Calibration Sheet
Chain of Custody

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**Table 1: Summary of December 2012 Quarterly Groundwater Monitoring Event**
**Project Name: Former General Mills Site**
**Project Location: 800 Derr Street, Vallejo, California**

| Well Identification | Measurement Date (mm/dd/yy) | Measurement Time | Depth to Product (Ft., below TOC) | Depth to Groundwater (Ft., below TOC) | Sample Date (mm/dd/yy) | Sample Time | QA/QC Type | QA/QC Identification | QA/QC Sample Time |
|---|---|---|---|---|---|---|---|---|---|
| MP-1R | 12/20/12 | 8:55 | ND | 4.96 | 12/20/12 | 10:57 | None | NA | NA |
| MP-2 | 12/20/12 | 8:41 | ND | 4.75 | NS | NA | NA | NA | NA |
| MP-6R | 12/20/12 | 8:58 | ND | 4.30 | 12/20/12 | 12:20 | None | NA | NA |
| MP-8 | 12/20/12 | 8:44 | ND | 5.41 | NS | NA | NA | NA | NA |
| MP-9 | 12/20/12 | 8:36 | ND | 3.08 | NS | NA | NA | NA | NA |
| MP-10 | 12/20/12 | 9:13 | ND | 4.40 | NS | NA | NA | NA | NA |
| MP-11 | 12/20/12 | 9:00 | ND | 4.85 | NS | NA | NA | NA | NA |
| MP-12 | 12/20/12 | 8:52 | ND | 3.05 | NS | NA | NA | NA | NA |
| MP-13A | 12/20/12 | 8:49 | ND | 4.85 | NS | NA | NA | NA | NA |
| MP-13B | 12/20/12 | 8:51 | ND | 5.11 | NS | NA | NA | NA | NA |
| MP-14 | 12/20/12 | 8:47 | ND | 4.95 | NS | NA | NA | NA | NA |
| EW-1 | 12/20/12 | 8:27 | ND | 6.59 | 12/20/12 | 9:16 | Duplicate | EW-1-DUP | 9:16 |
| EW-2 | 12/20/12 | 8:22 | ND | 6.66 | NS | NA | NA | NA | NA |
| EW-3 | 12/20/12 | 8:25 | ND | 7.07 | NS | NA | NA | NA | NA |
| EW-4 | 12/20/12 | 8:32 | ND | 6.58 | NS | NA | NA | NA | NA |
| EW-5 | 12/20/12 | 8:27 | ND | 6.61 | NS | NA | NA | NA | NA |

TOC= Top of Well Casing
NA= Not Applicable
ND= Not Detected
NS = Not Sampled

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**WATER QUALITY SAMPLE LOG SHEET** | WELL IDENTIFICATION: **MP-1R** DATE: 12/20/2012

Project Name: Former General Mills Site, Vallejo, CA | Client: ARCADIS U.S., Inc.

Laboratory: Curtis & Tompkins, LTD. (510) 486-0900 | Weather Conditions: Partly cloudy & cool ~39°F

Well Diameter: 3/4" 1" (2") 4" 5" Other: _____ | Well Type: (PVC) / Stainless Steel / Other: _____

Is Well Secured? (Yes) / No Bolt Size: 9/16" | Type of lock / Lock number: No lock

Screen Interval (Ft., BGS): 4 - 13.5 | Set pump intake @ 8.95 (Ft., BTOC)

Purge Method: Disp. PE Bailer Centrifugal Pump (Peristaltic Pump) Bladder Pump SS Submersible Pump

Pump Lines: NA / (PE) Teflon / Other - New / Cleaned (Dedicated) Bailer Line: (NA) New / Cleaned / Dedicated

Method of Cleaning Pump: (NA) / Liqui-nox / Tap Water / DI Rinse / Other: _____

Sampling Method: Disp. PE Bailer (Peristaltic Pump) Bladder Pump SS Submersible Pump PDBs

Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 (556 MPS - 09C100612)

Equipment Calibration: See Daily Equipment Calibration Sheet | OVM 580B P.I.D. Reading: NA ppm

Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 (56500) / Other: _____

Beginning Water Level (DTW): 4.71 @ 10:05 | Ending Water Level: 6.34 ↓

TD = 13.70 - 4.71 (DTW) = 8.99 (Ft. of water) x "K" = 1.46 (Gals./CV) x NA (No. of CV) = NA (Gals.)

"K"= 0.002 (3/4" well) "K" = 0.04 (1" well) ("K" = .163 (2" well)) "K" = 0.653 (4" well) "K" = 1.02 (5" well)

**FIELD WATER QUALITY PARAMETERS**

| Date | Time | Discharge (Liters) | Temp (°C) ± 0.2°C | Specific Conductivity (µS/cm[c]) ± 3% | DO (mg/L) ± 0.3 mg/L | pH (SU) ± 0.1 SU | ORP (mV) ± 10mV | Turbidity (NTU) ± 10% | Water Level (BTOC) | Color |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/20/12 | 10:09 | Initial (0.5) | 18.94 | 17459 | 2.03 | 7.20 | -281.5 | 5.15 | 5.01 | clear |
| | 10:12 | 1.0 | 19.18 | 17667 | 0.38 | 7.23 | -321.8 | 2.57 | 5.19 | " |
| | 10:15 | 1.5 | 18.94 | 17619 | 0.44 | 7.24 | -333.0 | 1.86 | 5.29 | " |
| | 10:19 | 2.0 | 18.90 | 17625 | 0.46 | 7.26 | -346.3 | 1.81 | 5.42 | " |
| | 10:24 | 2.5 | 18.78 | 17637 | 0.53 | 7.25 | -357.9 | 1.80 | 5.52 | " |
| | 10:29 | 3.0 | 19.01 | 17632 | 0.64 | 7.26 | -371.1 | 1.78 | 5.66 | " |
| | 10:34 | 3.5 | 19.58 | 17598 | 0.79 | 7.26 | -371.6 | 1.63 | 5.82 | " |
| | 10:39 | 4.0 | 19.78 | 17583 | 0.83 | 7.26 | -314.9 | 1.74 | 5.97 | " |
| | 10:44 | 4.5 | 19.66 | 17586 | 0.84 | 7.26 | -365.7 | 1.51 | 6.07 | " |
| | 10:49 | 5.0 | 19.62 | 17591 | 0.86 | 7.26 | -369.6 | 1.32 | 6.19 | " |
| ↓ | 10:54 | 5.5 | 19.50 | 17620 | 0.84 | 7.26 | -372.8 | 0.61 | 6.34 | " |

Total Discharge: 6.0 Liters | Disposal of discharged water: On-Site Sanitary Sewer

Date / Time Sampled: 12/20/12 @ 10:57 Analysis: TPH-D/MO (8015B) with & without silica gel cleanup; PNAs (8270-SIM); TDS (160.1); VOCs (8260B).

Notes: purgewater has a $H_2S$ odor

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD

Recorded by: (Stephen Penman) / Jacqueline Lee Signature: [signature] Page 1 of 1

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Environmental Sampling Services, LLC

## WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MP-6R** DATE: 12/20/2012

Project Name: Former General Mills Site, Vallejo, CA
Client: ARCADIS U.S., Inc.
Laboratory: Curtis & Tompkins, LTD. (510) 486-0900
Weather Conditions: Partly cloudy, breezy & cool ~46°F
Well Diameter: 3/4" 1" (2") 4" 5" Other: _____
Well Type: (PVC) / Stainless Steel / Other: _____
Is Well Secured? (Yes) No Bolt Size: 9/16"
Type of lock / Lock number: Dolphin
Screen Interval (Ft., BGS): 4.5 - 14.0
Set pump intake @ 10.18 (Ft., BTOC)
Purge Method: Disp. PE Bailer Centrifugal Pump (Peristaltic Pump) Bladder Pump SS Submersible Pump
Pump Lines: NA (PE) / Teflon / Other - New / Cleaned (Dedicated) Bailer Line: (NA) New / Cleaned / Dedicated
Method of Cleaning Pump: (NA) / Liqui-nox / Tap Water / DI Rinse / Other: _____
Sampling Method: Disp. PE Bailer (Peristaltic Pump) Bladder Pump SS Submersible Pump PDBs
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 (556 MPS - 09C100612)
Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: NA ppm
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 (56500) Other: _____
Beginning Water Level (DTW): 4.21 @ 11:39 Ending Water Level: 4.52
TD = 14.93 - 4.21 (DTW) = 10.72 (Ft. of water) x "K" = 1.74 (Gals./CV) x NA (No. of CV) = NA (Gals.)
"K"= 0.002 (3/4" well) "K" = 0.04 (1" well) ("K" = .163 (2" well)) "K" = 0.653 (4" well) "K" = 1.02 (5" well)

### FIELD WATER QUALITY PARAMETERS

| Date | Time | Discharge (Liters) | Temp (°C) ± 0.2°C | Specific Conductivity (µS/cm[c]) ± 3% | DO (mg/L) ± 0.3 mg/L | pH (SU) ± 0.1 SU | ORP (mV) ± 10mV | Turbidity (NTU) ± 10% | Water Level (BTOC) | Color |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/20/12 | 11:41 | Initial (0.5) | 20.56 | 5212 | 1.35 | 7.44 | -244.7 | 16.9 | 4.33 | slightly cloudy |
| | 11:45 | 1.0 | 20.54 | 5200 | 0.39 | 7.38 | -233.3 | 12.6 | 4.37 | " |
| | 11:48 | 1.5 | 20.47 | 5196 | 0.37 | 7.37 | -239.9 | 11.0 | 4.39 | " |
| | 11:53 | 2.0 | 20.30 | 5173 | 0.37 | 7.36 | -234.2 | 9.68 | 4.43 | Clear |
| | 11:58 | 2.5 | 20.41 | 5180 | 0.36 | 7.37 | -234.9 | 9.82 | 4.45 | " |
| | 12:03 | 3.0 | 20.37 | 5185 | 0.34 | 7.36 | -234.7 | 9.01 | 4.47 | " |
| | 12:08 | 3.5 | 20.22 | 5194 | 0.30 | 7.35 | -247.3 | 8.87 | 4.49 | " |
| | 12:13 | 4.0 | 20.12 | 5209 | 0.31 | 7.34 | -241.9 | 8.46 | 4.51 | " |
| | 12:18 | 4.5 | 20.10 | 5226 | 0.32 | 7.34 | -243.2 | 8.13 | 4.52 | " |
| | | 5.0 | | | | | | | | |
| | | 5.5 | | | | | | | | |

Total Discharge: 5.0 Liters
Disposal of discharged water: On-Site Sanitary Sewer
Date / Time Sampled: 12/20/12 @ 12:20 Analysis: TPH-G (8015B); PNAs (8270-SIM); TDS (160.1)
TPH-D/MO (8015B) with & without silica gel cleanup.

QA/QC: None @ _____ as a Duplicate Equipment Blank Field Blank MS/MSD
Recorded by: (Stephen Penman) / Jacqueline Lee Signature:



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## WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **EW-1** DATE: 12/20/2012

Project Name: Former General Mills Site, Vallejo, CA
Client: Arcadis U.S., Inc.
Laboratory: Curtis & Tompkins, LTD. (510) 486-0900
Weather Conditions: Clear, breezy & cold ~ 30°F
Well Diameter: 3/4" 1" 2" (4") 5" Other: _____
Well Type: (PVC) / Stainless Steel / Other: _____
Is Well Secured? (Yes) No Bolt Size: Standpipe (PVC)
Type of lock / Lock number: No lock
Screen Interval (Ft., BTOC): 7.5 - 14.5
Set pump intake @ 11.32 (Ft., BTOC)
Purge Method: Disp. PE Bailer Centrifugal Pump (Peristaltic Pump) Bladder Pump SS Submersible Pump
Pump Lines: NA (PE) / Teflon / Other - New / Cleaned / (Dedicated) Bailer Line: (NA) New / Cleaned / Dedicated
Method of Cleaning Pump: (NA) / Liqui-nox / Tap Water / DI Rinse / Other: _____
Sampling Method: Disp. PE Bailer (Peristaltic Pump) Bladder Pump SS Submersible Pump PDBs
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / (556 MPS - 09C100612)
Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: NA ppm
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 (56500) Other: _____
Beginning Water Level (DTW): 6.54 @ 8:44 Ending Water Level: 6.57
TD = 14.82 - 6.54 (DTW) = 8.28 (Ft. of water) x "K" = 1.34 (Gals./CV) x NA (No. of CV) = NA (Gals.)
"K"= 0.002 (3/4" well) "K" = 0.04 (1" well) "K" = .163 (2" well) ("K" = 0.653 (4" well)) "K" = 1.02 (5" well)

### FIELD WATER QUALITY PARAMETERS

| Date | Time | Discharge (Liters) | Temp (°C) ± 0.2°C | Specific Conductivity (µS/cm$^c$) ± 3% | DO (mg/L) ± 0.3 mg/L | pH (SU) ± 0.1 SU | ORP (mV) ± 10mV | Turbidity (NTU) ± 10% | Water Level (BTOC) | Color |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/20/12 | 8:58 | Initial (0.5) | 17.31 | 1334 | 1.17 | 6.33 | 50.0 | 35.6 | 6.57 | Slightly Cloudy |
| | 8:59 | 1.0 | 17.99 | 1304 | 1.37 | 6.36 | 51.4 | 35.8 | 6.57 | " |
| | 9:01 | 1.5 | 18.01 | 1320 | 1.87 | 6.28 | 51.5 | 28.2 | 6.57 | " |
| | 9:02 | 2.0 | 18.47 | 1320 | 1.59 | 6.37 | 53.1 | 28.1 | 6.57 | " |
| | 9:04 | 2.5 | 18.86 | 1320 | 1.36 | 6.39 | 54.6 | 25.0 | 6.57 | " |
| | 9:06 | 3.0 | 19.07 | 1320 | 1.29 | 6.40 | 45.1 | 24.1 | 6.57 | " |
| | 9:08 | 3.5 | 19.33 | 1319 | 1.26 | 6.40 | 30.4 | 21.9 | 6.57 | " |
| | 9:10 | 4.0 | 19.32 | 1321 | 1.24 | 6.40 | 29.5 | 19.8 | 6.57 | " |
| | 9:12 | 4.5 | 19.43 | 1322 | 1.26 | 6.40 | 31.4 | 21.1 | 6.57 | " |
| | 9:14 | 5.0 | 19.46 | 1323 | 1.25 | 6.40 | 28.2 | 21.3 | 6.57 | " |
| | | 5.5 | | | | | | | | |

Total Discharge: 5.5 Liters
Disposal of discharged water: On-Site Sanitary Sewer
Date / Time Sampled: 12/20/12 @ 9:16 Analysis: TPH-G (8015B); PNAs (8270-SIM); TDS (160.1)
TPH-D/MO (8015B) with & without silica gel cleanup.

Notes: There is an orange organic material suspended in purge water.

QA/QC: EW-1-DUP @ 9:16 as a (Duplicate) Equipment Blank (Field Blank) MS/MSD
Recorded by: (Stephen Penman) Jacqueline Lee Signature:



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**Project Name: Former General Mills Site**
**Project Address: 800 Derr Street, Vallejo, California**
**Task: December 2012 Quarterly Groundwater Monitoring Event**

**DAILY EQUIPMENT CALIBRATION SHEET**

| Date | Time | Instrument Serial Number | Probe Serial Number | Dissolved Oxygen (%) | pH | | | Specific Conductivity (1,000 µs/cm[c]) | ORP (231 mV) | Turbidity (0.02 NTU) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 4 | 7 | 10 | | | |
| 12/20/12 | 8:00 | 556MPS | 09C100612 | 100.4 | 3.98 | 7.01 | 10.04 | 1,001 | 230.8 | 0.02 |
| | | | | | | | | | | |
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# CHAIN OF CUSTODY RECORD

Page 1 of 1

**Environmental Sampling Services, LLC**

6680 Alhambra Ave., #102
Martinez, California 94553-6105
Telephone: (925) 372-8108
www.envsampling.com
Log Code: ESSM

**TURN AROUND TIME** — Other:

**LABORATORY:** Curtis & Tompkins, Ltd.
Lab Code: CTB

| ☐ 24 Hours | ☐ 48 Hours | ☐ 1 Week | ☑ Normal |
|---|---|---|---|

**Report To:** Mr. Todd Miller — **Telephone:** (925) 296-7856
**Company:** Arcadis U.S., Inc. — **Project Name:** Former General Mills Site
**Address:** 2999 Oak Road, Suite 300, Walnut Creek, CA 94597 — **Project Number:** 02626018.0000
**Bill To:** ARCADIS U.S., Inc
**E-Mail:** Todd.Miller@arcadis-us.com — **GeoTracker No.:** T0609535283

**Sampler(s):** Stephen Penman ☑ — **Sampler's Signature:**
Jacqueline Lee ☐ — **Sampler's Signature:**

**Reporting Requirement:** Hard Copy: Yes ☑ No ☐ PDF: Yes ☑ No ☐
EDD File: Yes ☑ No ☐ Electronic (EDF): Yes ☑ No ☐

| SAMPLE ID | FIELD POINT NAME | Sample Date | Sample Time | Number of Containers | Type of Container[1] | Matrix: Water | Groundwater | Soil | Soil Vapor | Other | Preservative: Ice | HCl | $HNO_3$ | $H_2SO_4$ | NaOH | VOCs (EPA 8260B) | TPH-G (8015B) | TPH-D/MO (8015B) with Silica Gel Cleanup | TPH-D/MO (8015B) without Silica Gel Cleanup | PNAs (8270-SIM) | TDS (160.1) | Field Filtered (FF) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trip Blank | QCTB-1 | 12/20/12 | 8:30 | 3 | 1 | X | | | | | X | X | | | | X | | | | | | | |
| EW-1 | EW-1 | 12/20/12 | 9:16 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |
| EW-1-DUP | QCFD-1 | 12/20/12 | 9:16 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |
| MP-1R | MP-1R | 12/20/12 | 10:57 | 8 | 1,2,3 | | X | | | | X | X | | | | X | X | X | X | X | X | | |
| MP-6R | MP-6R | 12/20/12 | 12:20 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 12/20/12 | 13:47 | |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

1 = Sample Container Type: 1 = VOA 2 = Glass 3 = High Density Polyethylene 4 = Summa Canister

QUESTIONS REGARDING COC, CALL ESS

Email COC upon receipt to: Sarah.Carman@arcadis-us.com
spen@envsampling.com and jlee@envsampling.com

**SAMPLE RECEIPT**

☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ NA

**General Mills Operations, Inc.**
Fourth Quarter 2012 Groundwater Monitoring Report
Leasehold Property, Former Flour Mill Facility
800 Derr Street, Vallejo, California

# Appendix B
# Analytical Laboratory Reports

2626018

MALCOLM PIRNIE


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 242074**
**ANALYTICAL REPORT**

| | |
|---|---|
| Arcadis | Project : 02626018.0000 |
| 2000 Powell St. | Location : Former General Mills Site |
| Emeryville, CA 94608 | Level : II |

| Sample ID | Lab ID |
|---|---|
| TRIP BLANK | 242074-001 |
| EW-1 | 242074-002 |
| EW-1-DUP | 242074-003 |
| MP-1R | 242074-004 |
| MP-6R | 242074-005 |

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree N. Tetrault Date: 12/31/2012

Desiree N. Tetrault
Project Manager
(510) 486-0900

NELAP # 01107CA

Curtis & Tompkins, Ltd.

# CASE NARRATIVE

| | |
|---|---|
| Laboratory number: | **242074** |
| Client: | **Arcadis** |
| Project: | **02626018.0000** |
| Location: | **Former General Mills Site** |
| Request Date: | **12/20/12** |
| Samples Received: | **12/20/12** |

This data package contains sample and QC results for five water samples, requested for the above referenced project on 12/20/12. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**
No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**
No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**
No analytical problems were encountered.

**Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):**
High surrogate recoveries were observed for nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 in EW-1 (lab # 242074-002); no target analytes were detected in the sample. No other analytical problems were encountered.

**Total Dissolved Solids (TDS) (SM2540C):**
High RPD was observed for total dissolved solids in the BS/BSD for batch 194062. No other analytical problems were encountered.

242074

**Environmental Sampling Services, LLC**

6680 Alhambra Ave., #102
Martinez, California 94553-6105
Telephone: (925) 372-8108
www.envsampling.com
Log Code: ESSM

# CHAIN OF CUSTODY RECORD



**TURN AROUND TIME** | **Other:**

**LABORATORY:** Curtis & Tompkins, Ltd.
Lab Code: CTB

| ☐ 24 Hours | ☐ 48 Hours | ☐ 1 Week | ☑ Normal |
|---|---|---|---|

**Report To:** Mr. Todd Miller | **Telephone:** (925) 296-7856
**Company:** Arcadis U.S., Inc. | **Project Name:** Former General Mills Site
**Address:** 2999 Oak Road, Suite 300, Walnut Creek, CA 94597 | **Project Number:** 02626018.0000
**Bill To:** ARCADIS U.S., Inc
**E-Mail:** Todd.Miller@arcadis-us.com | **GeoTracker No.:** T0609535283

**Sampler(s):** Stephen Penman ☑ | **Sampler's Signature:**
Jacqueline Lee ☐ | **Sampler's Signature:**

**Reporting Requirement:** Hard Copy : Yes ☑ No ☐ PDF: Yes ☑ No ☐
EDD File: Yes ☑ No ☐ Electronic (EDF) : Yes ☑ No ☐

| | SAMPLE ID | FIELD POINT NAME | Sample Date | Sample Time | Number of Containers | Type of Container[1] | Matrix: Water | Groundwater | Soil | Soil Vapor | Other | Preservative: Ice | HCl | $HNO_3$ | $H_2SO_4$ | NaOH | VOCs (EPA 8260B) | TPH-G (8015B) | TPH-D/MO (8015B) with Silica Gel Cleanup | TPH-D/MO (8015B) without Silica Gel Cleanup | PNAs (8270-SIM) | TDS (160.1) | Field Filtered (FF) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Trip Blank | QCTB-1 | 12/20/12 | 8:30 | 3 | 1 | X | | | | | X | X | | | | X | | | | | | | |
| 2 | EW-1 | EW-1 | 12/20/12 | 9:16 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |
| 3 | EW-1-DUP | QCFD-1 | 12/20/12 | 9:16 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |
| 4 | MP-1R | MP-1R | 12/20/12 | 10:57 | 8 | 1,2,3 | | X | | | | X | X | | | | X | | X | X | X | X | | |
| 5 | MP-6R | MP-6R | 12/20/12 | 12:20 | 8 | 1,2,3 | | X | | | | X | X | | | | | X | X | X | X | X | | |

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 12/20/12 | 13:47 | Pat Hunter |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

1 = Sample Container Type: 1 =VOA 2=Glass 3=High Density Polyethylene 4=Summa Canister

**QUESTIONS REGARDING COC, CALL ESS**

Email COC upon receipt to: Sarah.Carman@arcadis-us.com
spen@envsampling.com and jlee@envsampling.com

**SAMPLE RECEIPT**
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ NA

## COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 242074 Date Received 12/20/12 Number of coolers 2
Client ARCADIS Project 02626018.0000

Date Opened 12/20/12 By (print) " (sign) R. Leung
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) ____ YES (NO)
Shipping info ____

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many ____ Name ____ Date ____
2B. Were custody seals intact upon arrival? ____ YES NO (N/A)
3. Were custody papers dry and intact when received? ____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? ____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) ____

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.2, 0.9

☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ____ YES (NO)
If YES, what time were they transferred to freezer? ____
9. Did all bottles arrive unbroken/unopened? ____ (YES) NO
10. Are there any missing / extra samples? ____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? ____ (YES) NO
12. Are sample labels present, in good condition and complete? ____ (YES) NO
13. Do the sample labels agree with custody papers? ____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? ____ (YES) NO
15. Are the samples appropriately preserved? ____ (YES) NO N/A
16. Did you check preservatives for all bottles for each sample? ____ YES NO (N/A)
17. Did you document your preservative check? ____ YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? ____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? ____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? ____ (YES) NO N/A
21. Was the client contacted concerning this sample delivery? ____ YES (NO)
If YES, Who was called? ____ By ____ Date: ____

COMMENTS

____
____
____
____
____
____

Rev 10, 11/11

Curtis & Tompkins, Ltd.

# Total Volatile Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Matrix: | Water | Sampled: | 12/20/12 |
| Units: | ug/L | Received: | 12/20/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/21/12 |
| Batch#: | 194097 | | |

Field ID: EW-1 Lab ID: 242074-002
Type: SAMPLE

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | ND | 50 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 95 | 75-124 |

Field ID: EW-1-DUP Lab ID: 242074-003
Type: SAMPLE

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | ND | 50 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 107 | 75-124 |

Field ID: MP-6R Lab ID: 242074-005
Type: SAMPLE

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | ND | 50 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 85 | 75-124 |

Type: BLANK Lab ID: QC671153

| Analyte | Result | RL |
|---|---|---|
| Gasoline C7-C12 | ND | 50 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 101 | 75-124 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

## Total Volatile Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Type: | LCS | Diln Fac: | 1.000 |
| Lab ID: | QC671152 | Batch#: | 194097 |
| Matrix: | Water | Analyzed: | 12/21/12 |
| Units: | ug/L | | |

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Gasoline C7-C12 | 1,000 | 927.1 | 93 | 80-120 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 106 | 75-124 |

Curtis & Tompkins, Ltd.

Batch QC Report

## Total Volatile Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Field ID: | EW-1 | Batch#: | 194097 |
| MSS Lab ID: | 242074-002 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Analyzed: | 12/21/12 |
| Diln Fac: | 1.000 | | |

Type: MS Lab ID: QC671154

| Analyte | MSS Result | Spiked | Result | %REC | Limits |
|---|---|---|---|---|---|
| Gasoline C7-C12 | 11.07 | 2,000 | 1,873 | 93 | 71-120 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 111 | 75-124 |

Type: MSD Lab ID: QC671155

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Gasoline C7-C12 | 2,000 | 1,874 | 93 | 71-120 | 0 | 22 |

| Surrogate | %REC | Limits |
|---|---|---|
| Bromofluorobenzene (FID) | 117 | 75-124 |

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Matrix: | Water | Sampled: | 12/20/12 |
| Units: | ug/L | Received: | 12/20/12 |
| Diln Fac: | 1.000 | Prepared: | 12/21/12 |
| Batch#: | 194099 | Analyzed: | 12/26/12 |

Field ID: EW-1 Lab ID: 242074-002
Type: SAMPLE Cleanup Method: EPA 3630C

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 460 Y | 49 |
| Diesel C10-C24 (SGCU) | ND | 49 |
| Motor Oil C24-C36 | 390 | 290 |
| Motor Oil C24-C36 (SGCU) | ND | 290 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 114 | 61-134 |
| o-Terphenyl (SGCU) | 119 | 61-134 |

Field ID: EW-1-DUP Lab ID: 242074-003
Type: SAMPLE Cleanup Method: EPA 3630C

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 440 Y | 49 |
| Diesel C10-C24 (SGCU) | ND | 49 |
| Motor Oil C24-C36 | 440 | 290 |
| Motor Oil C24-C36 (SGCU) | ND | 290 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 104 | 61-134 |
| o-Terphenyl (SGCU) | 97 | 61-134 |

Field ID: MP-1R Lab ID: 242074-004
Type: SAMPLE Cleanup Method: EPA 3630C

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 1,900 Y | 49 |
| Diesel C10-C24 (SGCU) | ND | 49 |
| Motor Oil C24-C36 | 950 | 290 |
| Motor Oil C24-C36 (SGCU) | ND | 290 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 103 | 61-134 |
| o-Terphenyl (SGCU) | 105 | 61-134 |

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Matrix: | Water | Sampled: | 12/20/12 |
| Units: | ug/L | Received: | 12/20/12 |
| Diln Fac: | 1.000 | Prepared: | 12/21/12 |
| Batch#: | 194099 | Analyzed: | 12/26/12 |

Field ID: MP-6R
Type: SAMPLE
Lab ID: 242074-005
Cleanup Method: EPA 3630C

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | 4,100 Y | 49 |
| Diesel C10-C24 (SGCU) | 290 | 49 |
| Motor Oil C24-C36 | 3,200 | 290 |
| Motor Oil C24-C36 (SGCU) | ND | 290 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 105 | 61-134 |
| o-Terphenyl (SGCU) | 110 | 61-134 |

Type: BLANK
Lab ID: QC671159
Cleanup Method: EPA 3630C

| Analyte | Result | RL |
|---|---|---|
| Diesel C10-C24 | ND | 50 |
| Diesel C10-C24 (SGCU) | ND | 50 |
| Motor Oil C24-C36 | ND | 300 |
| Motor Oil C24-C36 (SGCU) | ND | 300 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 107 | 61-134 |
| o-Terphenyl (SGCU) | 108 | 61-134 |

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Batch QC Report

## Total Extractable Hydrocarbons

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8015B |
| Matrix: | Water | Batch#: | 194099 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/26/12 |

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC671160

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Diesel C10-C24 | 2,500 | 2,104 | 84 | 60-120 |
| Diesel C10-C24 (SGCU) | 2,500 | 2,257 | 90 | 60-120 |

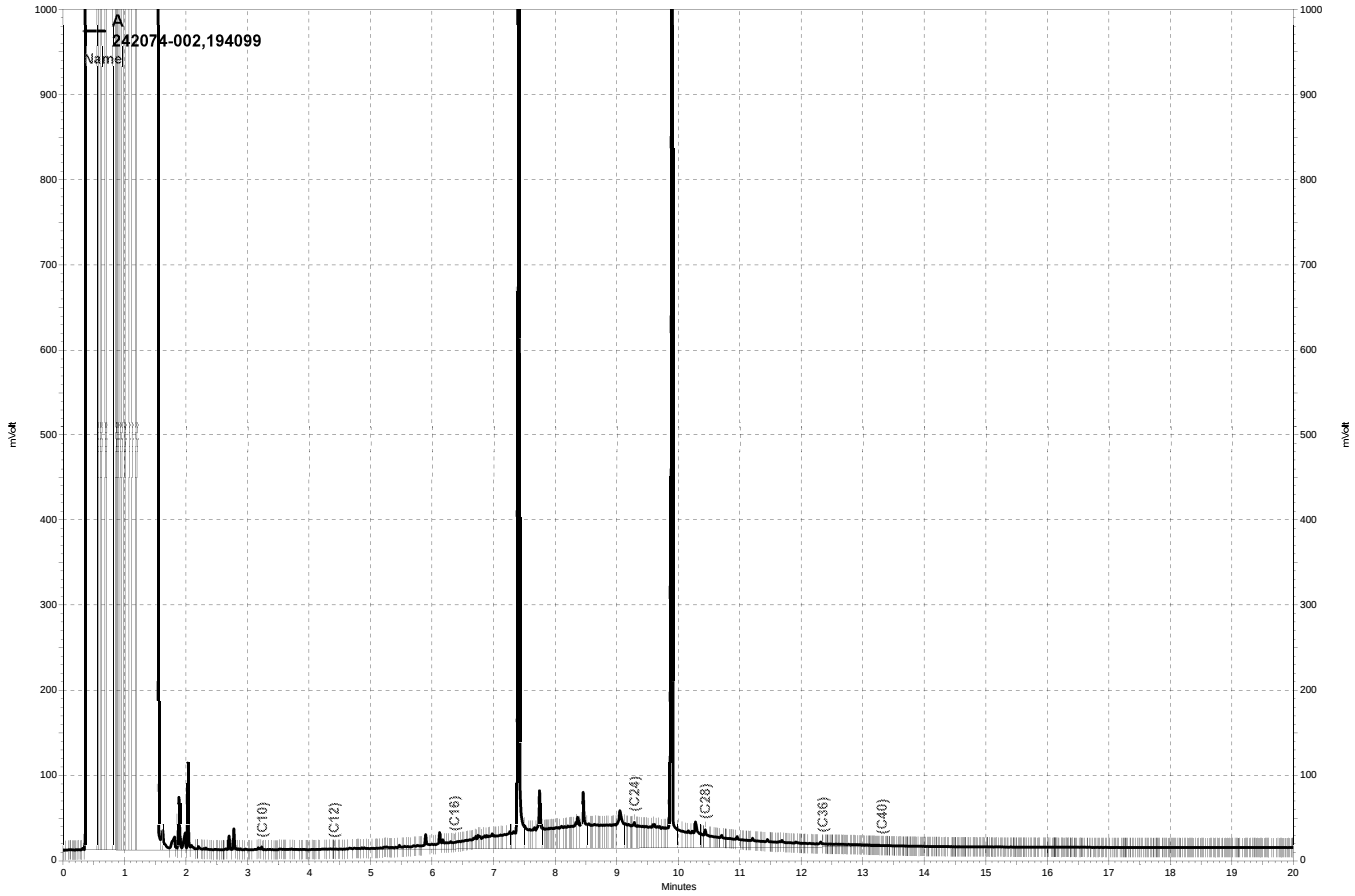
| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 107 | 61-134 |
| o-Terphenyl (SGCU) | 114 | 61-134 |

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC671161

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Diesel C10-C24 | 2,500 | 2,161 | 86 | 60-120 | 3 | 35 |
| Diesel C10-C24 (SGCU) | 2,500 | 2,172 | 87 | 60-120 | 4 | 35 |

| Surrogate | %REC | Limits |
|---|---|---|
| o-Terphenyl | 116 | 61-134 |
| o-Terphenyl (SGCU) | 113 | 61-134 |

RPD= Relative Percent Difference
SGCU= Silica gel cleanup

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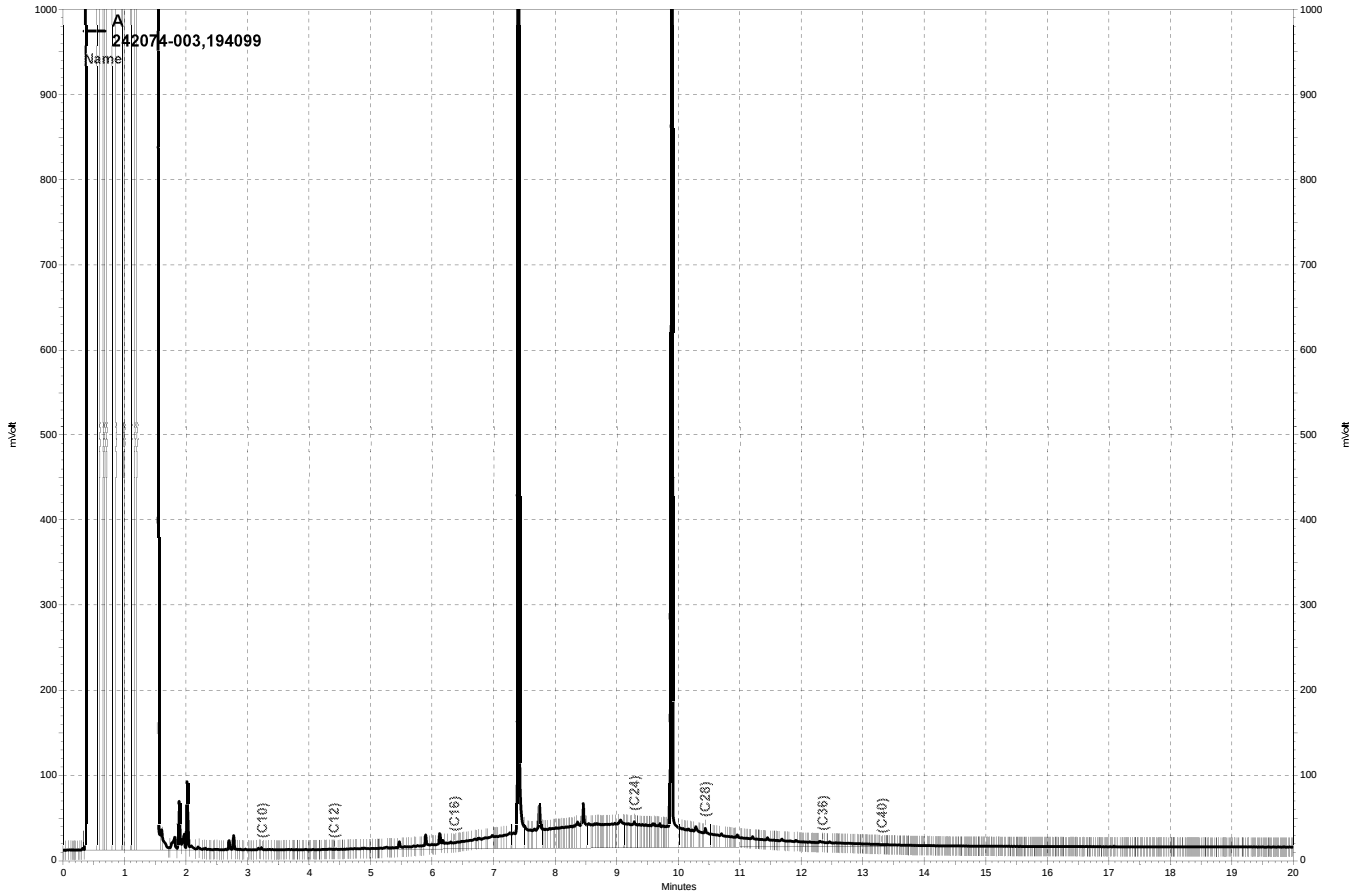


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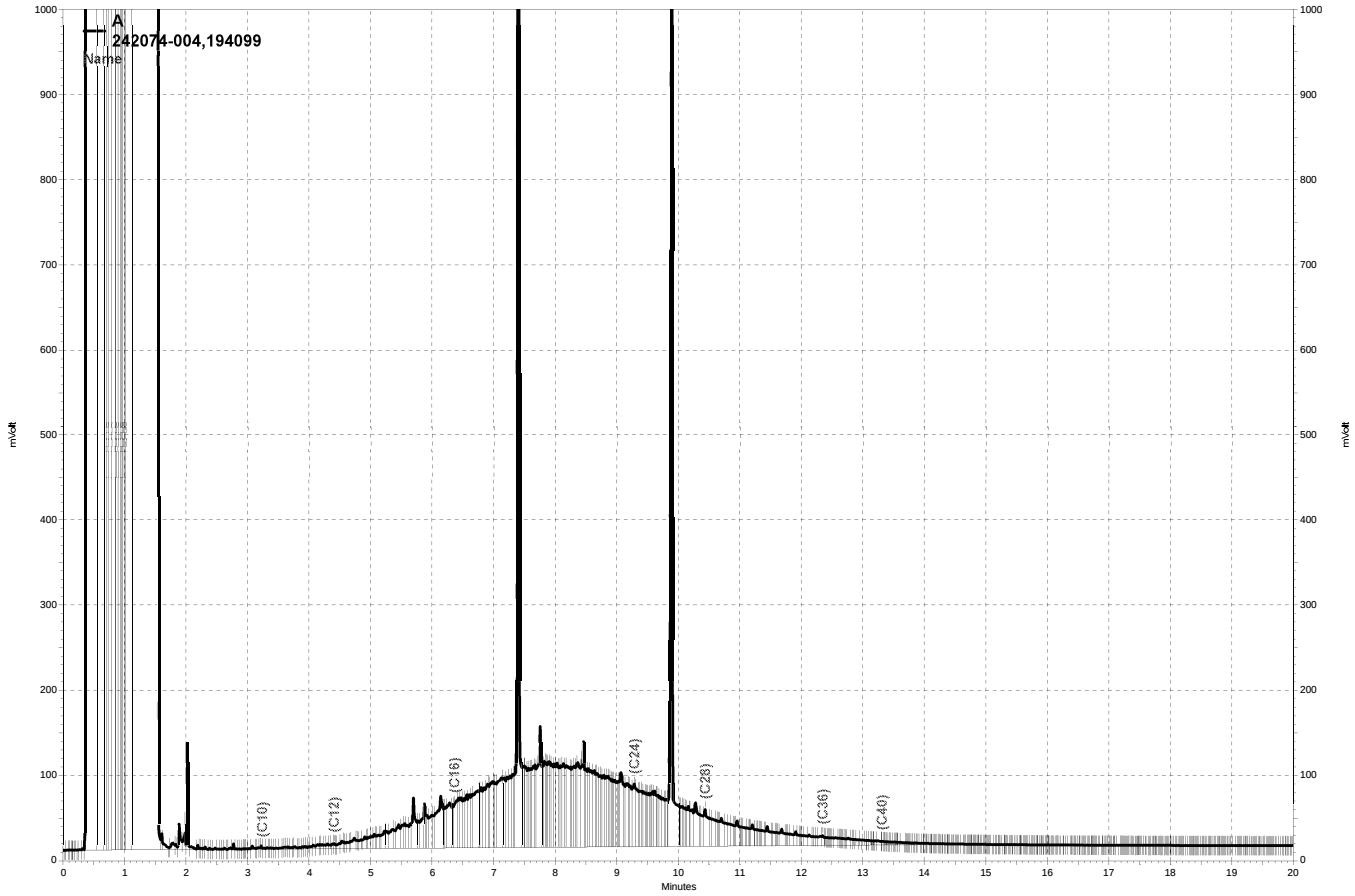


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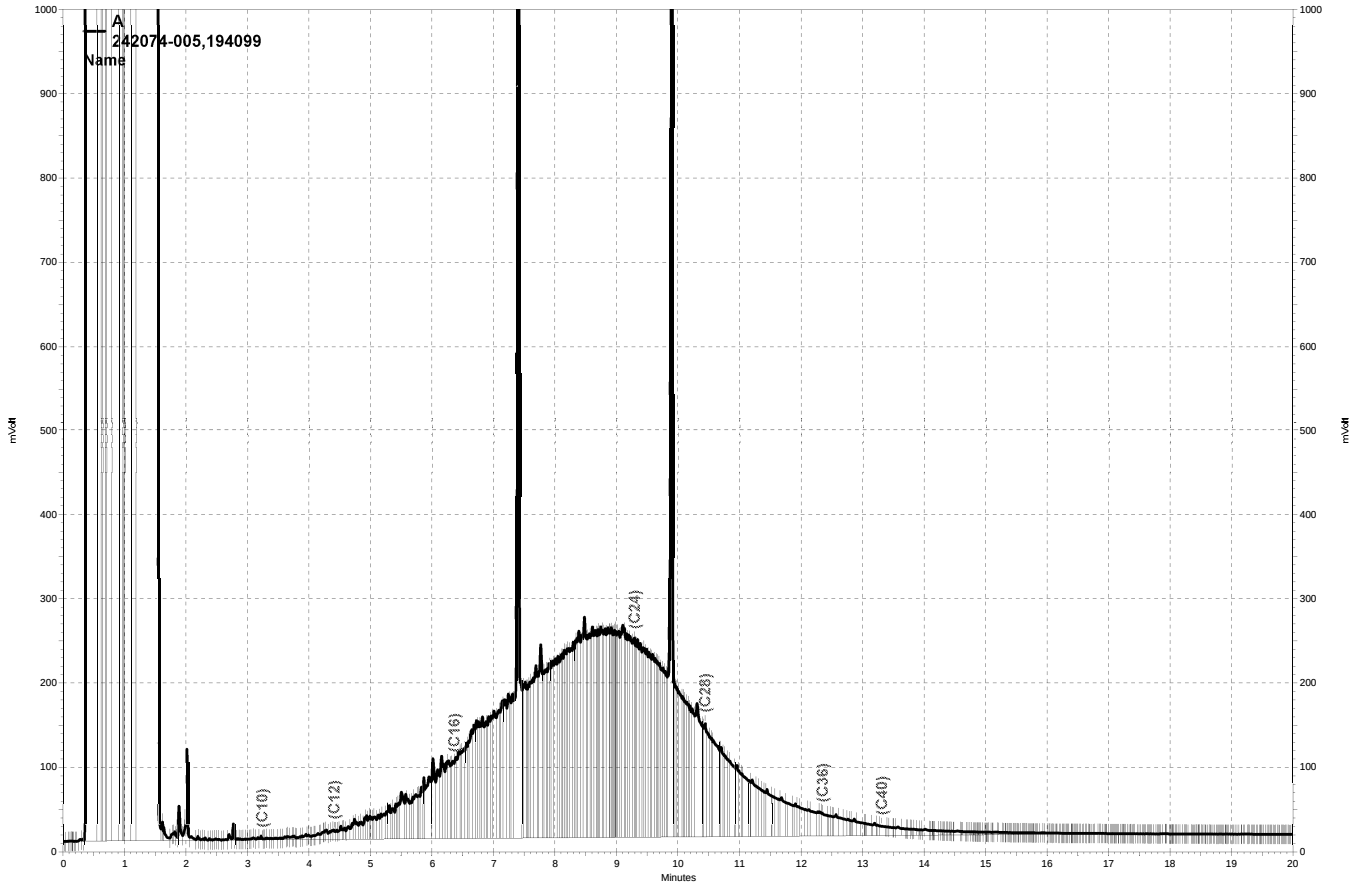


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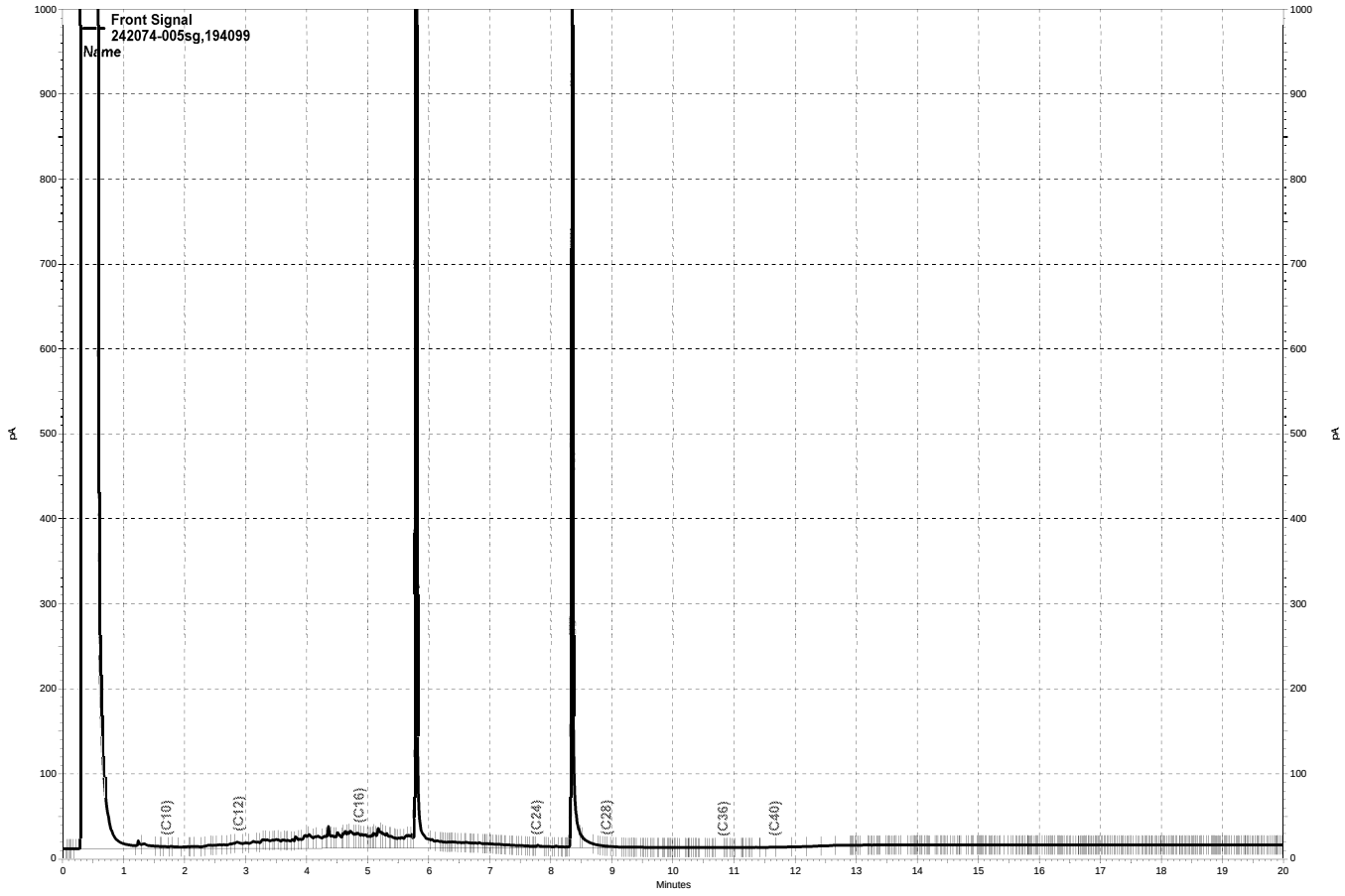
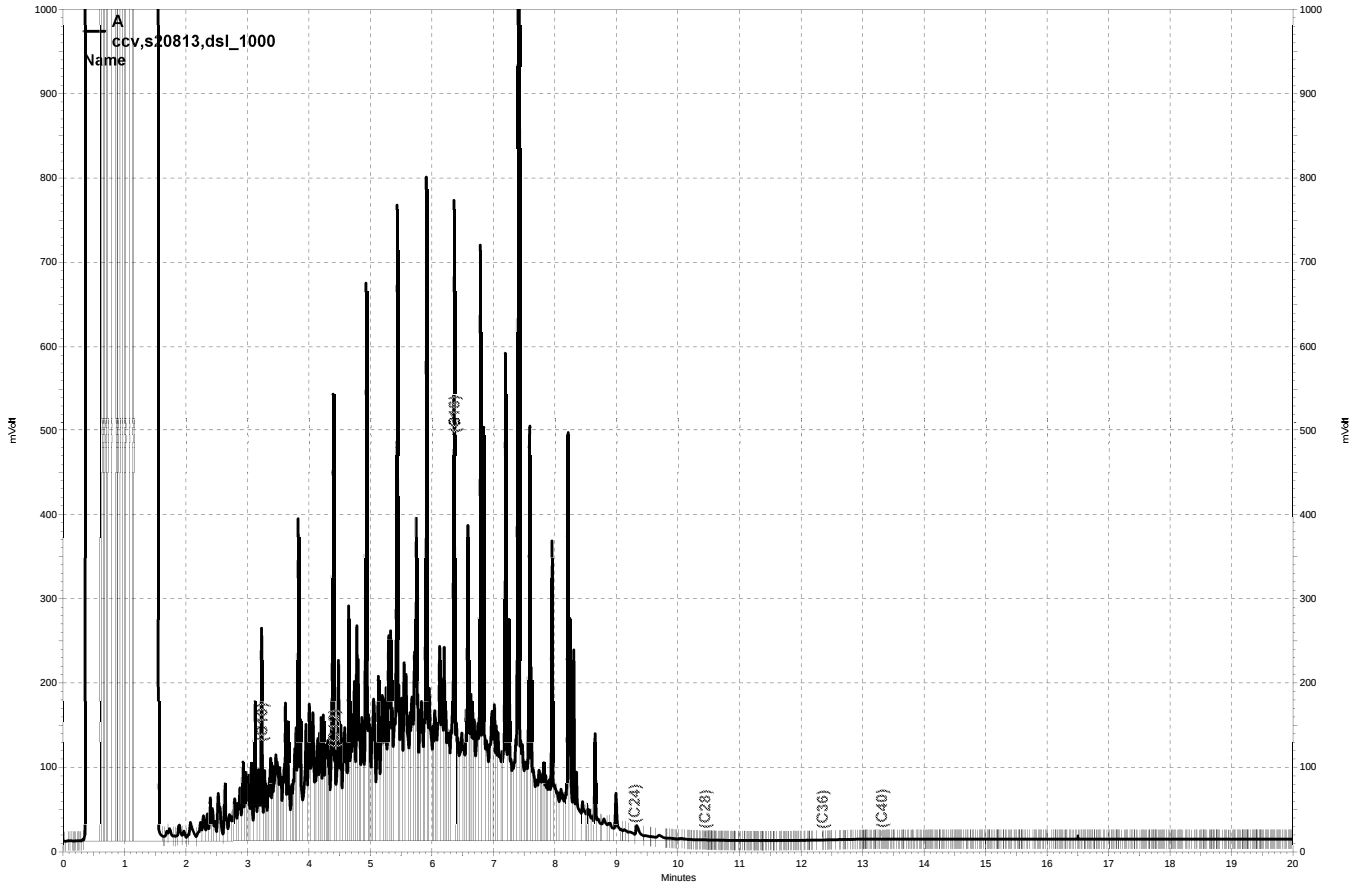



\\lims\gdrive\ezchrom\Projects\GC27\Data\361a010.dat, Front Signal

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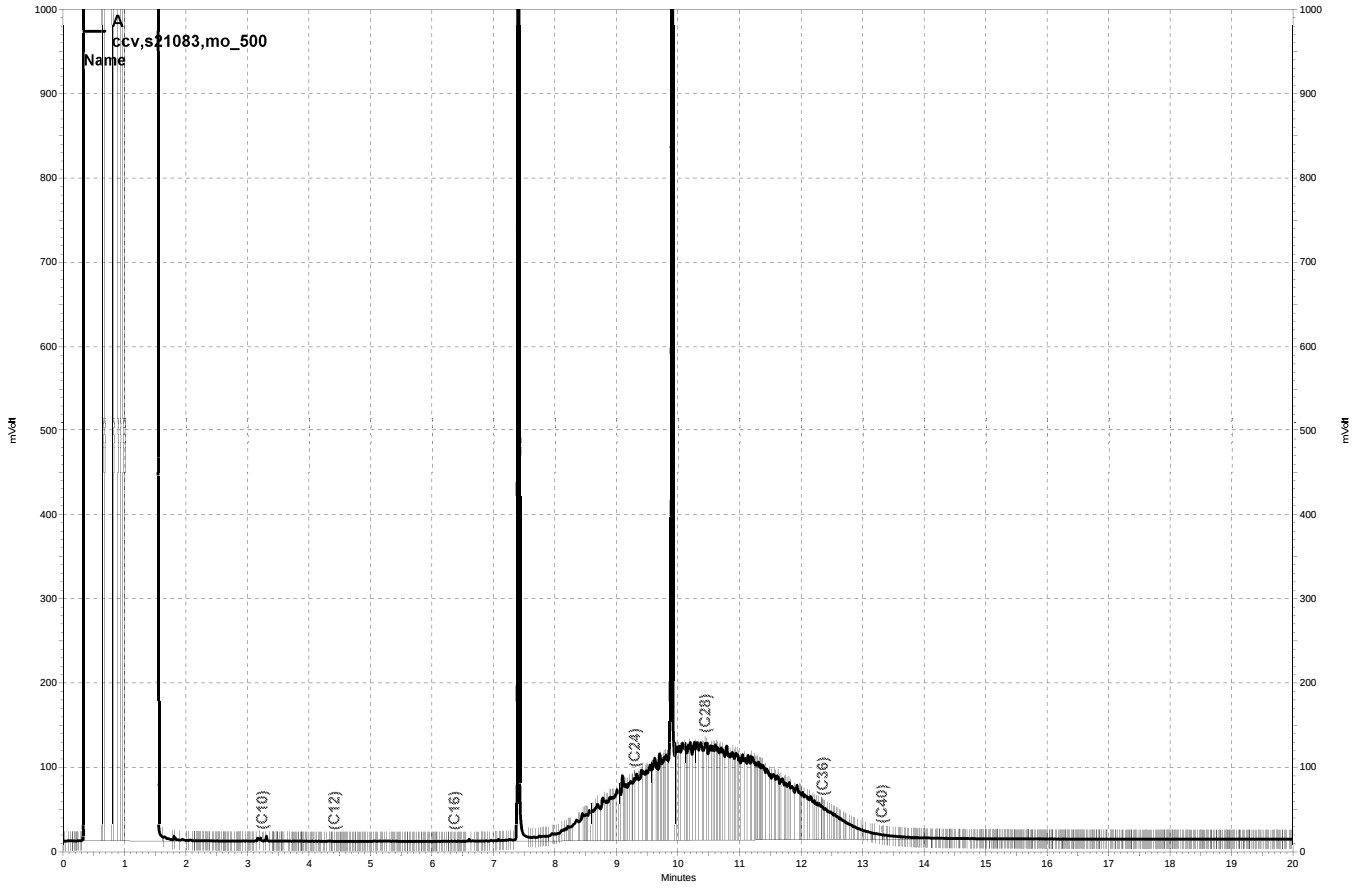


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Curtis & Tompkins, Ltd.

# Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Field ID: | TRIP BLANK | Batch#: | 194179 |
| Lab ID: | 242074-001 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Analyzed: | 12/28/12 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Freon 12 | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| Vinyl Chloride | ND | 0.5 |
| Bromomethane | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Acetone | ND | 10 |
| Freon 113 | ND | 2.0 |
| 1,1-Dichloroethene | ND | 0.5 |
| Methylene Chloride | ND | 10 |
| Carbon Disulfide | ND | 0.5 |
| MTBE | ND | 0.5 |
| trans-1,2-Dichloroethene | ND | 0.5 |
| Vinyl Acetate | ND | 10 |
| 1,1-Dichloroethane | ND | 0.5 |
| 2-Butanone | ND | 10 |
| cis-1,2-Dichloroethene | ND | 0.5 |
| 2,2-Dichloropropane | ND | 0.5 |
| Chloroform | ND | 0.5 |
| Bromochloromethane | ND | 0.5 |
| 1,1,1-Trichloroethane | ND | 0.5 |
| 1,1-Dichloropropene | ND | 0.5 |
| Carbon Tetrachloride | ND | 0.5 |
| 1,2-Dichloroethane | ND | 0.5 |
| Benzene | ND | 0.5 |
| Trichloroethene | ND | 0.5 |
| 1,2-Dichloropropane | ND | 0.5 |
| Bromodichloromethane | ND | 0.5 |
| Dibromomethane | ND | 0.5 |
| 4-Methyl-2-Pentanone | ND | 10 |
| cis-1,3-Dichloropropene | ND | 0.5 |
| Toluene | ND | 0.5 |
| trans-1,3-Dichloropropene | ND | 0.5 |
| 1,1,2-Trichloroethane | ND | 0.5 |
| 2-Hexanone | ND | 10 |
| 1,3-Dichloropropane | ND | 0.5 |
| Tetrachloroethene | ND | 0.5 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Field ID: | TRIP BLANK | Batch#: | 194179 |
| Lab ID: | 242074-001 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Analyzed: | 12/28/12 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Dibromochloromethane | ND | 0.5 |
| 1,2-Dibromoethane | ND | 0.5 |
| Chlorobenzene | ND | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND | 0.5 |
| Ethylbenzene | ND | 0.5 |
| m,p-Xylenes | ND | 0.5 |
| o-Xylene | ND | 0.5 |
| Styrene | ND | 0.5 |
| Bromoform | ND | 1.0 |
| Isopropylbenzene | ND | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 0.5 |
| 1,2,3-Trichloropropane | ND | 0.5 |
| Propylbenzene | ND | 0.5 |
| Bromobenzene | ND | 0.5 |
| 1,3,5-Trimethylbenzene | ND | 0.5 |
| 2-Chlorotoluene | ND | 0.5 |
| 4-Chlorotoluene | ND | 0.5 |
| tert-Butylbenzene | ND | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 0.5 |
| sec-Butylbenzene | ND | 0.5 |
| para-Isopropyl Toluene | ND | 0.5 |
| 1,3-Dichlorobenzene | ND | 0.5 |
| 1,4-Dichlorobenzene | ND | 0.5 |
| n-Butylbenzene | ND | 0.5 |
| 1,2-Dichlorobenzene | ND | 0.5 |
| 1,2-Dibromo-3-Chloropropane | ND | 2.0 |
| 1,2,4-Trichlorobenzene | ND | 0.5 |
| Hexachlorobutadiene | ND | 2.0 |
| Naphthalene | ND | 2.0 |
| 1,2,3-Trichlorobenzene | ND | 0.5 |

| Surrogate | %REC | Limits |
|---|---|---|
| Dibromofluoromethane | 101 | 80-127 |
| 1,2-Dichloroethane-d4 | 110 | 69-148 |
| Toluene-d8 | 99 | 80-120 |
| Bromofluorobenzene | 103 | 80-121 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Field ID: | MP-1R | Batch#: | 194179 |
| Lab ID: | 242074-004 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Analyzed: | 12/28/12 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Freon 12 | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| Vinyl Chloride | ND | 0.5 |
| Bromomethane | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Acetone | ND | 10 |
| Freon 113 | ND | 2.0 |
| 1,1-Dichloroethene | ND | 0.5 |
| Methylene Chloride | ND | 10 |
| Carbon Disulfide | ND | 0.5 |
| MTBE | ND | 0.5 |
| trans-1,2-Dichloroethene | ND | 0.5 |
| Vinyl Acetate | ND | 10 |
| 1,1-Dichloroethane | ND | 0.5 |
| 2-Butanone | ND | 10 |
| cis-1,2-Dichloroethene | 1.0 | 0.5 |
| 2,2-Dichloropropane | ND | 0.5 |
| Chloroform | ND | 0.5 |
| Bromochloromethane | ND | 0.5 |
| 1,1,1-Trichloroethane | ND | 0.5 |
| 1,1-Dichloropropene | ND | 0.5 |
| Carbon Tetrachloride | ND | 0.5 |
| 1,2-Dichloroethane | ND | 0.5 |
| Benzene | ND | 0.5 |
| Trichloroethene | ND | 0.5 |
| 1,2-Dichloropropane | ND | 0.5 |
| Bromodichloromethane | ND | 0.5 |
| Dibromomethane | ND | 0.5 |
| 4-Methyl-2-Pentanone | ND | 10 |
| cis-1,3-Dichloropropene | ND | 0.5 |
| Toluene | ND | 0.5 |
| trans-1,3-Dichloropropene | ND | 0.5 |
| 1,1,2-Trichloroethane | ND | 0.5 |
| 2-Hexanone | ND | 10 |
| 1,3-Dichloropropane | ND | 0.5 |
| Tetrachloroethene | ND | 0.5 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

## Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Field ID: | MP-1R | Batch#: | 194179 |
| Lab ID: | 242074-004 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Analyzed: | 12/28/12 |
| Diln Fac: | 1.000 | | |

| Analyte | Result | RL |
|---|---|---|
| Dibromochloromethane | ND | 0.5 |
| 1,2-Dibromoethane | ND | 0.5 |
| Chlorobenzene | ND | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND | 0.5 |
| Ethylbenzene | ND | 0.5 |
| m,p-Xylenes | ND | 0.5 |
| o-Xylene | ND | 0.5 |
| Styrene | ND | 0.5 |
| Bromoform | ND | 1.0 |
| Isopropylbenzene | ND | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 0.5 |
| 1,2,3-Trichloropropane | ND | 0.5 |
| Propylbenzene | ND | 0.5 |
| Bromobenzene | ND | 0.5 |
| 1,3,5-Trimethylbenzene | ND | 0.5 |
| 2-Chlorotoluene | ND | 0.5 |
| 4-Chlorotoluene | ND | 0.5 |
| tert-Butylbenzene | ND | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 0.5 |
| sec-Butylbenzene | ND | 0.5 |
| para-Isopropyl Toluene | ND | 0.5 |
| 1,3-Dichlorobenzene | ND | 0.5 |
| 1,4-Dichlorobenzene | ND | 0.5 |
| n-Butylbenzene | ND | 0.5 |
| 1,2-Dichlorobenzene | ND | 0.5 |
| 1,2-Dibromo-3-Chloropropane | ND | 2.0 |
| 1,2,4-Trichlorobenzene | ND | 0.5 |
| Hexachlorobutadiene | ND | 2.0 |
| Naphthalene | ND | 2.0 |
| 1,2,3-Trichlorobenzene | ND | 0.5 |

| Surrogate | %REC | Limits |
|---|---|---|
| Dibromofluoromethane | 103 | 80-127 |
| 1,2-Dichloroethane-d4 | 110 | 69-148 |
| Toluene-d8 | 99 | 80-120 |
| Bromofluorobenzene | 104 | 80-121 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

## Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Matrix: | Water | Batch#: | 194179 |
| Units: | ug/L | Analyzed: | 12/28/12 |
| Diln Fac: | 1.000 | | |

Type: BS Lab ID: QC671468

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 25.00 | 24.43 | 98 | 65-130 |
| Benzene | 25.00 | 24.96 | 100 | 80-123 |
| Trichloroethene | 25.00 | 25.93 | 104 | 76-121 |
| Toluene | 25.00 | 26.55 | 106 | 80-120 |
| Chlorobenzene | 25.00 | 26.58 | 106 | 80-120 |

| Surrogate | %REC | Limits |
|---|---|---|
| Dibromofluoromethane | 101 | 80-127 |
| 1,2-Dichloroethane-d4 | 104 | 69-148 |
| Toluene-d8 | 98 | 80-120 |
| Bromofluorobenzene | 94 | 80-121 |

Type: BSD Lab ID: QC671469

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 25.00 | 21.67 | 87 | 65-130 | 12 | 22 |
| Benzene | 25.00 | 22.93 | 92 | 80-123 | 8 | 20 |
| Trichloroethene | 25.00 | 23.82 | 95 | 76-121 | 9 | 20 |
| Toluene | 25.00 | 24.44 | 98 | 80-120 | 8 | 20 |
| Chlorobenzene | 25.00 | 24.98 | 100 | 80-120 | 6 | 20 |

| Surrogate | %REC | Limits |
|---|---|---|
| Dibromofluoromethane | 100 | 80-127 |
| 1,2-Dichloroethane-d4 | 104 | 69-148 |
| Toluene-d8 | 99 | 80-120 |
| Bromofluorobenzene | 97 | 80-121 |

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

## Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Type: | BLANK | Diln Fac: | 1.000 |
| Lab ID: | QC671470 | Batch#: | 194179 |
| Matrix: | Water | Analyzed: | 12/28/12 |
| Units: | ug/L | | |

| Analyte | Result | RL |
|---|---|---|
| Freon 12 | ND | 1.0 |
| Chloromethane | ND | 1.0 |
| Vinyl Chloride | ND | 0.5 |
| Bromomethane | ND | 1.0 |
| Chloroethane | ND | 1.0 |
| Trichlorofluoromethane | ND | 1.0 |
| Acetone | ND | 10 |
| Freon 113 | ND | 2.0 |
| 1,1-Dichloroethene | ND | 0.5 |
| Methylene Chloride | ND | 10 |
| Carbon Disulfide | ND | 0.5 |
| MTBE | ND | 0.5 |
| trans-1,2-Dichloroethene | ND | 0.5 |
| Vinyl Acetate | ND | 10 |
| 1,1-Dichloroethane | ND | 0.5 |
| 2-Butanone | ND | 10 |
| cis-1,2-Dichloroethene | ND | 0.5 |
| 2,2-Dichloropropane | ND | 0.5 |
| Chloroform | ND | 0.5 |
| Bromochloromethane | ND | 0.5 |
| 1,1,1-Trichloroethane | ND | 0.5 |
| 1,1-Dichloropropene | ND | 0.5 |
| Carbon Tetrachloride | ND | 0.5 |
| 1,2-Dichloroethane | ND | 0.5 |
| Benzene | ND | 0.5 |
| Trichloroethene | ND | 0.5 |
| 1,2-Dichloropropane | ND | 0.5 |
| Bromodichloromethane | ND | 0.5 |
| Dibromomethane | ND | 0.5 |
| 4-Methyl-2-Pentanone | ND | 10 |
| cis-1,3-Dichloropropene | ND | 0.5 |
| Toluene | ND | 0.5 |
| trans-1,3-Dichloropropene | ND | 0.5 |
| 1,1,2-Trichloroethane | ND | 0.5 |
| 2-Hexanone | ND | 10 |
| 1,3-Dichloropropane | ND | 0.5 |
| Tetrachloroethene | ND | 0.5 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

## Purgeable Organics by GC/MS

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 5030B |
| Project#: | 02626018.0000 | Analysis: | EPA 8260B |
| Type: | BLANK | Diln Fac: | 1.000 |
| Lab ID: | QC671470 | Batch#: | 194179 |
| Matrix: | Water | Analyzed: | 12/28/12 |
| Units: | ug/L | | |

| Analyte | Result | RL |
|---|---|---|
| Dibromochloromethane | ND | 0.5 |
| 1,2-Dibromoethane | ND | 0.5 |
| Chlorobenzene | ND | 0.5 |
| 1,1,1,2-Tetrachloroethane | ND | 0.5 |
| Ethylbenzene | ND | 0.5 |
| m,p-Xylenes | ND | 0.5 |
| o-Xylene | ND | 0.5 |
| Styrene | ND | 0.5 |
| Bromoform | ND | 1.0 |
| Isopropylbenzene | ND | 0.5 |
| 1,1,2,2-Tetrachloroethane | ND | 0.5 |
| 1,2,3-Trichloropropane | ND | 0.5 |
| Propylbenzene | ND | 0.5 |
| Bromobenzene | ND | 0.5 |
| 1,3,5-Trimethylbenzene | ND | 0.5 |
| 2-Chlorotoluene | ND | 0.5 |
| 4-Chlorotoluene | ND | 0.5 |
| tert-Butylbenzene | ND | 0.5 |
| 1,2,4-Trimethylbenzene | ND | 0.5 |
| sec-Butylbenzene | ND | 0.5 |
| para-Isopropyl Toluene | ND | 0.5 |
| 1,3-Dichlorobenzene | ND | 0.5 |
| 1,4-Dichlorobenzene | ND | 0.5 |
| n-Butylbenzene | ND | 0.5 |
| 1,2-Dichlorobenzene | ND | 0.5 |
| 1,2-Dibromo-3-Chloropropane | ND | 2.0 |
| 1,2,4-Trichlorobenzene | ND | 0.5 |
| Hexachlorobutadiene | ND | 2.0 |
| Naphthalene | ND | 2.0 |
| 1,2,3-Trichlorobenzene | ND | 0.5 |

| Surrogate | %REC | Limits |
|---|---|---|
| Dibromofluoromethane | 100 | 80-127 |
| 1,2-Dichloroethane-d4 | 107 | 69-148 |
| Toluene-d8 | 100 | 80-120 |
| Bromofluorobenzene | 100 | 80-121 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Field ID: | EW-1 | Batch#: | 194084 |
| Lab ID: | 242074-002 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/27/12 |

| Analyte | Result | RL |
|---|---|---|
| Naphthalene | ND | 0.09 |
| Acenaphthylene | ND | 0.09 |
| Acenaphthene | ND | 0.09 |
| Fluorene | ND | 0.09 |
| Phenanthrene | ND | 0.09 |
| Anthracene | ND | 0.09 |
| Fluoranthene | ND | 0.09 |
| Pyrene | ND | 0.09 |
| Benzo(a)anthracene | ND | 0.09 |
| Chrysene | ND | 0.09 |
| Benzo(b)fluoranthene | ND | 0.09 |
| Benzo(k)fluoranthene | ND | 0.09 |
| Benzo(a)pyrene | ND | 0.09 |
| Indeno(1,2,3-cd)pyrene | ND | 0.09 |
| Dibenz(a,h)anthracene | ND | 0.09 |
| Benzo(g,h,i)perylene | ND | 0.09 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 142 * | 45-127 |
| 2-Fluorobiphenyl | 131 * | 49-120 |
| Terphenyl-d14 | 156 * | 27-120 |

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Field ID: | EW-1-DUP | Batch#: | 194084 |
| Lab ID: | 242074-003 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/27/12 |

| Analyte | Result | RL |
|---|---|---|
| Naphthalene | ND | 0.09 |
| Acenaphthylene | ND | 0.09 |
| Acenaphthene | ND | 0.09 |
| Fluorene | ND | 0.09 |
| Phenanthrene | ND | 0.09 |
| Anthracene | ND | 0.09 |
| Fluoranthene | ND | 0.09 |
| Pyrene | ND | 0.09 |
| Benzo(a)anthracene | ND | 0.09 |
| Chrysene | ND | 0.09 |
| Benzo(b)fluoranthene | ND | 0.09 |
| Benzo(k)fluoranthene | ND | 0.09 |
| Benzo(a)pyrene | ND | 0.09 |
| Indeno(1,2,3-cd)pyrene | ND | 0.09 |
| Dibenz(a,h)anthracene | ND | 0.09 |
| Benzo(g,h,i)perylene | ND | 0.09 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 100 | 45-127 |
| 2-Fluorobiphenyl | 106 | 49-120 |
| Terphenyl-d14 | 120 | 27-120 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Field ID: | MP-1R | Batch#: | 194084 |
| Lab ID: | 242074-004 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/27/12 |

| Analyte | Result | RL |
|---|---|---|
| Naphthalene | 0.2 | 0.09 |
| Acenaphthylene | 0.09 | 0.09 |
| Acenaphthene | 4.0 | 0.09 |
| Fluorene | 0.09 | 0.09 |
| Phenanthrene | ND | 0.09 |
| Anthracene | 0.2 | 0.09 |
| Fluoranthene | 0.3 | 0.09 |
| Pyrene | 0.2 | 0.09 |
| Benzo(a)anthracene | ND | 0.09 |
| Chrysene | ND | 0.09 |
| Benzo(b)fluoranthene | ND | 0.09 |
| Benzo(k)fluoranthene | ND | 0.09 |
| Benzo(a)pyrene | ND | 0.09 |
| Indeno(1,2,3-cd)pyrene | ND | 0.09 |
| Dibenz(a,h)anthracene | ND | 0.09 |
| Benzo(g,h,i)perylene | ND | 0.09 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 76 | 45-127 |
| 2-Fluorobiphenyl | 87 | 49-120 |
| Terphenyl-d14 | 91 | 27-120 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

# Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Field ID: | MP-6R | Batch#: | 194084 |
| Lab ID: | 242074-005 | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/27/12 |

| Analyte | Result | RL |
|---|---|---|
| Naphthalene | 0.1 | 0.09 |
| Acenaphthylene | 0.2 | 0.09 |
| Acenaphthene | 0.7 | 0.09 |
| Fluorene | 1.1 | 0.09 |
| Phenanthrene | 0.1 | 0.09 |
| Anthracene | 0.4 | 0.09 |
| Fluoranthene | 0.1 | 0.09 |
| Pyrene | 0.2 | 0.09 |
| Benzo(a)anthracene | ND | 0.09 |
| Chrysene | ND | 0.09 |
| Benzo(b)fluoranthene | ND | 0.09 |
| Benzo(k)fluoranthene | ND | 0.09 |
| Benzo(a)pyrene | ND | 0.09 |
| Indeno(1,2,3-cd)pyrene | ND | 0.09 |
| Dibenz(a,h)anthracene | ND | 0.09 |
| Benzo(g,h,i)perylene | ND | 0.09 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 98 | 45-127 |
| 2-Fluorobiphenyl | 91 | 49-120 |
| Terphenyl-d14 | 94 | 27-120 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

## Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Type: | BLANK | Diln Fac: | 1.000 |
| Lab ID: | QC671092 | Batch#: | 194084 |
| Matrix: | Water | Prepared: | 12/21/12 |
| Units: | ug/L | Analyzed: | 12/26/12 |

| Analyte | Result | RL |
|---|---|---|
| Naphthalene | ND | 0.1 |
| Acenaphthylene | ND | 0.1 |
| Acenaphthene | ND | 0.1 |
| Fluorene | ND | 0.1 |
| Phenanthrene | ND | 0.1 |
| Anthracene | ND | 0.1 |
| Fluoranthene | ND | 0.1 |
| Pyrene | ND | 0.1 |
| Benzo(a)anthracene | ND | 0.1 |
| Chrysene | ND | 0.1 |
| Benzo(b)fluoranthene | ND | 0.1 |
| Benzo(k)fluoranthene | ND | 0.1 |
| Benzo(a)pyrene | ND | 0.1 |
| Indeno(1,2,3-cd)pyrene | ND | 0.1 |
| Dibenz(a,h)anthracene | ND | 0.1 |
| Benzo(g,h,i)perylene | ND | 0.1 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 113 | 45-127 |
| 2-Fluorobiphenyl | 112 | 49-120 |
| Terphenyl-d14 | 108 | 27-120 |

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

## Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Type: | LCS | Diln Fac: | 1.000 |
| Lab ID: | QC671093 | Batch#: | 194084 |
| Matrix: | Water | Prepared: | 12/21/12 |
| Units: | ug/L | Analyzed: | 12/26/12 |

| Analyte | Spiked | Result | %REC | Limits |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 1.016 | 102 | 43-120 |
| Pyrene | 1.000 | 0.8988 | 90 | 38-120 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 110 | 45-127 |
| 2-Fluorobiphenyl | 105 | 49-120 |
| Terphenyl-d14 | 94 | 27-120 |

Curtis & Tompkins, Ltd.

Batch QC Report

## Semivolatile Organics by GC/MS SIM

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | EPA 3520C |
| Project#: | 02626018.0000 | Analysis: | EPA 8270C-SIM |
| Field ID: | ZZZZZZZZZZ | Batch#: | 194084 |
| MSS Lab ID: | 242032-007 | Sampled: | 12/18/12 |
| Matrix: | Water | Received: | 12/18/12 |
| Units: | ug/L | Prepared: | 12/21/12 |
| Diln Fac: | 1.000 | Analyzed: | 12/26/12 |

Type: MS Lab ID: QC671094

| Analyte | MSS Result | Spiked | Result | %REC | Limits |
|---|---|---|---|---|---|
| Acenaphthene | <0.01923 | 0.9709 | 0.9555 | 98 | 47-120 |
| Pyrene | <0.02304 | 0.9709 | 1.054 | 109 | 44-120 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 95 | 45-127 |
| 2-Fluorobiphenyl | 97 | 49-120 |
| Terphenyl-d14 | 115 | 27-120 |

Type: MSD Lab ID: QC671095

| Analyte | Spiked | Result | %REC | Limits | RPD | Lim |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.9434 | 0.9888 | 105 | 47-120 | 6 | 29 |
| Pyrene | 0.9434 | 1.063 | 113 | 44-120 | 4 | 47 |

| Surrogate | %REC | Limits |
|---|---|---|
| Nitrobenzene-d5 | 110 | 45-127 |
| 2-Fluorobiphenyl | 107 | 49-120 |
| Terphenyl-d14 | 120 | 27-120 |

RPD= Relative Percent Difference

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# Total Dissolved Solids (TDS)

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | METHOD |
| Project#: | 02626018.0000 | Analysis: | SM2540C |
| Analyte: | Total Dissolved Solids | Sampled: | 12/20/12 |
| Matrix: | Water | Received: | 12/20/12 |
| Units: | mg/L | Prepared: | 12/20/12 |
| Batch#: | 194062 | Analyzed: | 12/21/12 |

| Field ID | Type | Lab ID | Result | RL | Diln Fac |
|---|---|---|---|---|---|
| EW-1 | SAMPLE | 242074-002 | 1,040 | 10 | 1.000 |
| EW-1-DUP | SAMPLE | 242074-003 | 1,060 | 10 | 1.000 |
| MP-1R | SAMPLE | 242074-004 | 10,800 | 100 | 10.00 |
| MP-6R | SAMPLE | 242074-005 | 3,870 | 20 | 2.000 |
| | BLANK | QC671010 | ND | 10 | 1.000 |

ND= Not Detected
RL= Reporting Limit

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Batch QC Report

## Total Dissolved Solids (TDS)

| | | | |
|---|---|---|---|
| Lab #: | 242074 | Location: | Former General Mills Site |
| Client: | Arcadis | Prep: | METHOD |
| Project#: | 02626018.0000 | Analysis: | SM2540C |
| Analyte: | Total Dissolved Solids | Batch#: | 194062 |
| Field ID: | MP-6R | Sampled: | 12/20/12 |
| MSS Lab ID: | 242074-005 | Received: | 12/20/12 |
| Matrix: | Water | Prepared: | 12/20/12 |
| Units: | mg/L | Analyzed: | 12/21/12 |

| Type | Lab ID | MSS Result | Spiked | Result | RL | %REC | Limits | RPD | Lim | Diln Fac |
|---|---|---|---|---|---|---|---|---|---|---|
| BS | QC671011 | | 104.0 | 106.0 | | 102 | 73-120 | | | 1.000 |
| BSD | QC671012 | | 104.0 | 100.0 | | 96 | 73-120 | 6 * | 5 | 1.000 |
| SDUP | QC671013 | 3,872 | | 3,840 | 20.00 | | | 1 | 5 | 2.000 |

*= Value outside of QC limits; see narrative
RL= Reporting Limit
RPD= Relative Percent Difference