April 27, 2012
Revision Draft

ATTACHMENT G

GROUNDWATER MONITORING

ATTACHMENT G (Application SECTION 3)

GROUNDWATER MONITORING

This section presents general hydrogeological information, interim status period groundwater monitoring data, post-closure period groundwater monitoring data, soil vapor monitoring data, and a groundwater detection monitoring program.

3.1 GENERAL HYDROGEOLOGIC INFORMATION

3.1.1 Regional Hydrogeology

Page Ranch Landfill is located within the Falcon Valley at an elevation of approximately 3,700 feet above mean sea level. This portion of the valley is underlain by basin fill deposits with a thickness of at least 800 to 900 feet (Hargis and Montgomery, 1983). Quaternary and Tertiary age basin fill deposits consist of, from youngest to oldest, the Fort Lowell Formation, the Tinaja beds, and the Pantano Formation. The Tortolita and Santa Catalina Mountains, bounding the valley on the west and east, respectively, are underlain principally by Precambrian granitic rocks.

- The Fort Lowell Formation consists of reddish, unconsolidated to moderately consolidated material, predominantly sandy to silty gravel with some clayey gravel. Regionally this formation is generally 300 to 400 feet thick (Arizona Department of Environmental Quality [ADEQ], 1986).
- The Tinaja beds sequence consists of reddish to greyish semi-consolidated to consolidated material. Lithology is predominantly clayey and silty on a regional basis. Thickness ranges from approximately 200 to several hundred feet (ADEQ, 1986).
- The Pantano Formation is generally a reddish-brown silty sandstone to gravel. This formation ranges in thickness from approximately 1,000 to over 6,000 feet (ADEQ, 1986).

Groundwater exists at this site at approximately 645 feet below ground surface (ft bgs) and occurs within the three basin fill deposits discussed above with a thickness of at least 800 to 900 feet (HGC 2005). Regional flow of groundwater is to the south or southwest, parallel to the axis of the Falcon Valley, while estimated groundwater velocity in the vicinity of the landfill is 10 to 100 feet per year (ft/year) (HGC 2005).

Groundwater is not currently used as a source of drinking water at the landfill property or in the surrounding properties. There are no current restrictions on using groundwater at the site as a drinking water source. A registered well survey performed in September 2009 as port of the human health risk assessment suggested the following drinking water wells within 4-mile radius of the site (AMEC, 2009; Appendix Table C-5). Registered well surveys performed in 2011 does not reveal new wells installed after September 2009.

- Five wells located between 2 and 3 miles from the site are reportedly used for drinking water purposes. These five wells are located to the southwest of the site in the general direction of regional hydraulic gradient.

- The nearest drinking water well (registration number 209389) to the site is located approximately 2 miles to the southwest. This well is screened at a maximum depth of 1200 ft bgs, and is owned by the Arizona Water Company, which provides drinking water to customers in Oracle and Oracle Junction.
- Another well owned by the Arizona Water Company (registration number 547316) is screened at a maximum depth of 1140 ft bgs.
- The other three wells (registration numbers 210547, 590585 and 629347) belong to private owners, are screened at maximum depths of 620, 610 and 535 ft bgs, respectively, and are reportedly used for domestic supply and/or livestock.

- Five other wells (registration numbers 615720, 633715, 801251, 805003, and 805056) located between 3 and 4 miles from the site are reportedly used for drinking water purposes. Their maximum depth ranges from 200 to 975 ft bgs, while the maximum depth for one of the wells (registration number 805003) is unknown.

The nearest off-site wells to the site are two irrigation wells (registration numbers 206038 and 595243) located within a 1-mile radius on the private property to the southwest of the site. These two wells are screened at maximum depth of 1500 and 1380 ft bgs, respectively, and are reportedly used for industrial purposes.

Chemical characteristics of groundwater are presented in Hargis and Montgomery (1983). Total dissolved solids ranges from 224 to 288 mg/L (milligrams per liter). Water is of a predominantly sodium and calcium bicarbonate nature.

3.1.2 Site Hydrogeology

3.1.2.1 Monitoring Well Construction

Five groundwater monitoring wells have been installed at the site (Figure G-1). These wells are located inside a fenced enclosure surrounding the two landfill units (Unit A and Unit B; Figure G-1), and are individually equipped with locked wellhead covers. Monitoring well MW-1 was installed in 1984; it was replaced in 1990 by well MW-5, because well MW-1 was not screened in the appropriate zone. Monitoring wells MW-2, MW-3, and MW-4 were installed in 1985. The total depth and depth of the perforated interval for these wells are summarized in Table G-1; their construction details and subsurface lithological conditions are described in the Site Hydrogeology section below. Given that regional groundwater flow is towards the south or southwest, wells MW-1 and MW-5 are considered hydraulically upgradient of the landfill units. MW-4 is located east and south of Unit B, and is considered lateral to groundwater flow. Monitoring wells MW-3 is located due west of Unit A, while MW-2 is located southwest of Unit A and west of Unit B; both are considered downgradient to both Units A and B.

Monitoring wells MW-1, MW-2, MW-3, and MW 4, which were installed between September 1984 and March 1985, are described in a report by Errol L. Montgomery and Associates (EMA, 1985). The wells were drilled using a combination of air and mud rotary methods. In addition to lithologic logs, the wells were logged geophysically. Geophysical logs, including long- and short-

normal electrical resistivity, natural gamma ray, gamma-gamma, neutron, and caliper, are reproduced in the 1985 EMA report. Wells are cased with 4.125-inch inside diameter carbon steel (innermost casing) and the perforated section is machine-slotted carbon steel (0.125-inch in MW-1 and 0.100-inch in MW-2, MW-3, and MW-4). Filter pack is natural. The wells were developed by pumping and each had a dedicated pump installed. The monitoring wells are approximately 800 feet deep with depths to water measured at approximately 650 ft bgs.

Monitoring well MW-5 was installed June through September 1990 (EEC, 1991). This well was drilled by a combination of air and mud rotary methods. Lithologic and geophysical (spontaneous potential, short- and long-normal electrical resistivity, caliper, sonic, gamma ray) logging was done. The well is cased with 6-inch inside diameter carbon steel (innermost casing). The well was developed by swabbing and pumping and a new dedicated pump installed.

In order to use wells MW-2 and MW-5 as soil vapor monitoring wells, inflatable packers were installed in wells MW-2 and MW-5 at depth of 575 ft and 609 ft bgs, respectively.

3.1.2.2 Stratigraphy

Lithology observed during the drilling of monitoring wells MW-1 through MW-4 was generally silty, sandy gravel (EMA, 1985). These sediments ranged from unconsolidated to moderately consolidated. Reaction to dilute acid indicated the presence of carbonate cementation. Average fines (silt plus clay) content in the upper 100 feet of section penetrated was estimated by EMA at approximately 30 percent. Average fines content in the zone below 100 feet was estimated at 15 percent. Average porosity was estimated from geophysical logs to be 0.21. Specific yield (equivalent to effective porosity) was estimated at 0.15 percent based on comparison with similar sediments. A fence diagram, developed by EEC based on lithologic log data from these wells, is attached (Figure G-3). The diagram indicates a coarser grained section (sandy gravel) below a depth of approximately 450 feet.

Lithology in the water-bearing zone is predominantly sand and gravel. Geophysical logging indicates several relatively coarse-grained (high resistivity) and fine-grained (low resistivity) units (HGC, 1988). The only unit said to be traceable between wells is a high resistivity and presumably relatively high permeability zone occurring at a depth of approximately 700 feet. Qualitative indicators suggest increased permeability below 700 feet.

Lithology observed during the drilling of MW-5 was generally similar to that described for the other monitoring wells above (EEC, 1991).

3.1.2.3 Aquifer Testing

A single well step drawdown aquifer test was conducted in monitoring well MW-1 in 1984 (EMA, 1985). A pumping test in well MW-3 was conducted in 1987, using wells MW-1, MW-2, and MW-4 as observation points (EMA, 1987). A high degree of confidence was not placed in calculated transmissivities by authors of later reports due to some uncertainties in data collection and analysis methods.

Data from the 1987 test were reinterpreted by HGC. HGC indicated, among other things, that wells MW-3 and MW-1 have a relatively high permeability zone in common, but that only a fraction of the water produced from MW-3 during the test was from this high permeability zone. HGC concluded that the total transmissivity may be on the order of the 50,000 gpd/ft (gallons per day per foot) calculated earlier, however the transmissivity of the aquifer materials immediately surrounding MW-3 are lower.

A pumping test in MW-5 was conducted in 1990, using wells MW-1 and MW-3 as observation points (EEC, 1991). Observations in the pumping well and in MW-1 were used to calculate transmissivity by several methods. Results indicated transmissivity of 9,200 to 9,500 gpd/ft. Based on results of the aquifer test, storage coefficient was estimated at 0.0045. The opinion was expressed that aquifer conditions are between unconfined and semi-confined.

3.1.2.4 Hydraulic Gradient

Regional groundwater flow in the area surrounding Page Ranch Landfill, as discussed above, is to the south or southwest. Groundwater elevation measurements taken from on-site monitoring wells between 2001 and 2011 are summarized in Table G-2. However, it is difficult to determine groundwater flow direction from on-site monitoring wells, for the following reasons. First, obtaining accurate depth to water measurements at wells greater than 600 ft deep is challenging due to the large depth. Second, because the spacing between monitoring wells is relatively small (400 to 800 ft), water level variations between wells are typically less than 1 ft. As a result, even relatively small inaccuracy in depth to water measurements may make groundwater flow direction appear different from its true direction. Groundwater flow directly below the site is generally to the southeast, ranging from east to south-southeast (HGC, 2005). However, there are abnormalities. For example,

- The groundwater elevation at well MW-5 on April 13, 2005 was lower than the other wells, resulting in a seemingly northeast groundwater flow direction.

- The groundwater elevation at well MW-4 on April 8, 2009 was higher than the other wells, resulting in a seemingly north-northwest groundwater flow direction.

These abnormalities were observed infrequently between 2001 and 2011, and therefore are considered due to inaccurate measurements instead of actual change in groundwater flow direction. The horizontal hydraulic gradient to the southeast, as indicated by the groundwater elevations at wells MW-3 and MW-4, ranges from 0.00030 to 0.00214, with an average of 0.00060.

3.2 TOPOGRAPHIC INFORMATION

Topographic information is discussed in Attachment A and presented in Figures G-1, G-2, and G-3.

3.3 INTERIM STATUS PERIOD GROUNDWATER MONITORING DATA

3.3.1 Description of Wells

The interim status groundwater monitoring system consists of the five monitoring wells as described in the Site Hydrogeology section and illustrated on Figure G-1.

3.3.2 Groundwater Sampling and Analysis Procedures

Sampling procedures used during the Interim Status Period are described in the University of Arizona (UA) Interim Status Period Groundwater Sampling and Analyses Plan (UA, 1994). This plan included:

- Steps taken prior to each sampling event:
    - Equipment needed
    - Sample containers type/size and preservation
    - Laboratory scheduling
    - Equipment calibration
- Description of sampling procedures
    - Field measurements (temperature, pH. electric conductivity, groundwater elevations)
    - Sample collection, labeling, preservation, and shipment
- Laboratory Analyses
    - Volatile organic compounds (VOCs)
    - Pesticides
    - Phenols
    - Manganese and sodium
    - Sulfate and chloride
- Recordkeeping requirements and procedures
    - Field logs
    - Chain-of-custody procedures
    - Laboratory QA/QC and reporting
    - Data filing and reporting.

3.3.3 Interim Period Monitoring Data

Personnel of the UA Department of Risk Management Services collected groundwater samples from the site groundwater monitoring wells for analyses during the period October 1984 through March 1997. ADEQ periodically collected split samples. A summary of the laboratory analytical results for the samples is shown in Appendix G-1 and is discussed below.

3.3.3.1 Organic Constituents

The following organic constituents were detected in groundwater samples collected from one or more of the site wells during single sampling events: aldrin, chlordane, dieldrin, methoxychlor, bis (2 ethylhexyl) phthalate, diethyl phthalate, phenol, 2,4,6- trichlorophenol, bromoform, 1, 1-dichloroethane, and trichlorofluoromethane. Several of the compounds were not detected in duplicate samples, or were detected at concentrations below the method detection limit.

The following organic constituents were detected in samples from the site wells during two and three sampling events, respectively: toluene and 1,1, 1-trichloroethane (1,1-TCA). The samples in which the constituents were detected were not collected during consecutive sampling events. In three of the five sampling events, the constituents were not detected in split samples or samples that were reanalyzed.

Chloroform was detected in samples collected during four non-consecutive sampling events. Samples were collected improperly for the analysis of VOCs according to documentation for the first sampling event. Chloroform was not detected in splits or duplicate samples collected during the second and third sampling events, respectively. Chloroform was detected in sample blanks during the fourth sampling event.

Methylene chloride was detected in samples collected during seven sampling events. However, sample blanks from four of these sampling events also contained methylene chloride. In addition, split samples from two of the sampling events did not contain methylene chloride, and documentation from one sampling event stated that the samples were collected improperly for the analysis of VOCs.

In conclusion, review of the sampling results indicates that the organic constituents identified in the samples were detected at low concentrations, were seldom detected in more than one sampling event, and were not detected in more than two consecutive sampling events. In addition, many of the results were not reproduced in split or duplicate samples or the constituents were also detected in quality control blanks. Organic constituents were not detected in samples collected post 1992. Based on the above information, it appears that the detected organic constituents were inadvertently introduced into the samples, possibly due to contamination during sampling or during analysis in the laboratories (ADEQ. 1996). Therefore, the Interim Sampling Program at the site did not identify the presence of organic contaminants in groundwater at the site. This same conclusion was also reached by ADEQ (ADEQ, 1996).

3.3.3.2 Inorganic Constituents

A number of inorganic constituents were analyzed in groundwater samples from the site. Fluoride, arsenic, barium, and chromium were detected at concentrations below the Arizona Aquifer Water Quality Standards (AWQS) for drinking water.

Concentrations of nitrate were generally below or slightly above the AWQS. Total dissolved solids, chloride, sulfate, and zinc were detected at concentrations well below the EPA Secondary Maximum Contaminant Levels (SMCLs). The measured pH of the water was within the range of the SMCL, except for samples collected in 1985 and one in 1990, which measured

at a slightly lower pH. Iron and manganese were consistently detected at higher concentrations than the SMCL.

Groundwater samples collected at the site were analyzed for other inorganic constituents that do not have AWQS or SMCLs, including alkalinity, hardness, calcium, magnesium, and sodium. Of these, only sodium was analyzed on a regular basis. Although the concentrations of sodium fluctuated somewhat over time, the results were fairly consistent.

In conclusion, the results for the inorganic constituents indicate that they can be attributed to natural water quality (ADEQ, 1996). Statistical procedures used for the analysis of background groundwater concentration values are discussed later in this section, under General Monitoring Program Requirements.

3.4 POST CLOSURE PERIOD GROUNDWATER MONITORING DATA

3.4.1 Description of Wells

The post-closure groundwater monitoring system consists of four monitoring wells (MW-2, MW-3, MW-4, and MW-5), as discussed in the Site Hydrogeology section and illustrated on Figure G-1.

3.4.2 Groundwater Sampling and Analysis Procedure

The Post Closure Period Groundwater Detection Monitoring Plan is presented in Appendix G-2. This plan includes the following:

- Steps to be taken prior to each sampling event:
    - Equipment needed
    - Sample containers type/size and preservation
    - Laboratory scheduling
    - Equipment calibration
- Sampling procedures
    - Field measurements (temperature, pH, electric conductivity, groundwater elevations)
    - Sample collection, labeling, preservation, and shipment
- Laboratory Analyses
    - VOCs
    - Pesticides
    - Semi-volatile organic compounds (SVOCs)
    - Manganese and sodium
    - Sulfate and chloride
- Recordkeeping requirements and procedures
    - Field logs

- Chain-of-custody procedures
- Laboratory QA/QC and reporting
- Data filing and reporting

3.4.3 Groundwater Monitoring Data

During the post-closure period (between August 1997 and October 2010), personnel of the UA Department of Risk Management Services collected groundwater samples from the site groundwater monitoring wells for analyses in November 1997, August 2000, and October 2001, and have been collected groundwater samples twice a year since 2003. A summary of the laboratory analytical results for the samples is shown in Appendix G-1 and is discussed below.

3.4.3.1 Organic Constituents

Detections of organic constituents in groundwater samples collected from well MW-2 include the following. None of these constituents were detected in the subsequent sampling event.

- Chloromethane was detected at a concentration of 0.00079 mg/L on 10/12/2005;
- Toluene was detected at a concentration of 0.014 mg/L on 11/7/2006;
- Pyrene was detected at a concentration of 0.005 mg/L on 10/14/2009;

No organic constituents were detected in groundwater samples collected from well MW-3.

Detections of organic constituents in groundwater samples collected from well MW-4 include the following. None of these constituents were detected in the subsequent sampling event.

- Total trihalomethanes and chloroform were detected at concentrations of 0.00056 and 0.00056 mg/L, respectively;
- Bis(2-ethylhexyl) phthalate was detected at concentrations of 17 and 7 mg/L (primary and duplicate samples) on 8/23/2000;

Detections of organic constituents in groundwater samples collected from well MW-5 include the following. None of these constituents were detected in the subsequent sampling event.

- Benzene was detected at a concentration of 0.00054 mg/L on 4/12/2006;
- Toluene was detected at concentrations of 0.0054 and 0.0026 mg/L (primary and duplicate samples) on 11/7/2006;
- Bis(2-ethylhexyl)phthalate was detected at a concentration of 17 mg/L on 8/23/2000.

Overall, detections of organic constituents, including VOCs, pesticides, and SVOCs, have been sporadic in both time and by monitoring well location. In addition, none of the detected organic constituents were detected during consecutive monitoring events. Therefore, the post-closure groundwater monitoring program did not indicate the presence of organic contaminants in groundwater at the site.

3.4.3.2 Inorganic Constituents

The inorganic constituents analyzed for during the post-closure period include chloride, sulfate, manganese, and sodium. Their concentrations were below their respective Alert Levels (see General Groundwater Monitoring Requirements). Therefore, the post-closure groundwater monitoring program did not indicate the presence of inorganic contaminants in groundwater at the site.

3.5 SOIL VAPOR MONITORING DATA

In order to determine the potential for contaminants in soil vapor to migrate from the landfill to surrounding areas, a number of soil vapor sampling events have been conducted. The soil gas sampling data are presented in Appendix G-3.

3.5.1 Soil Vapor Survey

In order to determine prior to landfill closure the potential for contaminants from the landfill to migrate to the area immediately surrounding the landfill, a near surface soil vapor survey was conducted by HGC in July 1988 (Appendix A to EEC, 1989b). A total of eight soil vapor samples were collected at the perimeter of Unit A and twelve soil vapor samples were collected at the perimeter of Unit B from a depth of approximately 5 ft bgs. An additional 9 samples were collected at approximately 100 feet beyond the two landfill units. In general, the VOCs were detected at the highest concentrations near the landfill perimeter, with concentrations decreasing substantially with increased distance from the landfill units. These data indicate that while VOCs were present in the pore space in the soil immediately surrounding the landfill, concentrations diminish substantially with increasing distance. It is noted that these data reflect site conditions prior to closure of the landfill and are therefore not representative of current, post-closure site conditions.

In September 1994, a second soil vapor investigation was conducted prior to landfill closure to again assess potential soil gas migration from the landfill in the surrounding area (Terra Tech, 1994; provided as Appendix G to Rust Environment & Infrastructure [RUST], 1995). The investigation consisted of installing vapor probes in shallow subsurface soil within 5 feet from the three perimeter sides (north, west, and south) of each landfill unit, beginning at the upper northeast edge. Soil vapor samples were collected with a geoprobe sampler and spaced every 50 feet along the landfill perimeter and to a maximum depth of 10 ft bgs. If a soil vapor sample contained detectable levels of VOCs, a second sample was collected at a distance away (e.g. 15 feet) from the first sample. This was repeated for all samples with detectable concentrations resulting in additional sample collection up to a maximum distance of 150 feet beyond the landfill perimeter. A total of 12 VOCs were detected in at least one soil vapor sample out of 109 samples analyzed, and included in order of detection frequency: chloroform (85%), trichlorofluoromethane (69%), tetrahydrofuran (31%), carbon tetrachloride (18%), 1,3-dichlorobenzene and 1,2-dichlorobenzene (each at 12%), xylenes (11%), tetrachloroethylene (PCE) and trichloroethylene (TCE) (each at 10%), 1,1,1-trichloroethane (8%), 1,1-dichloroethene (5%), and 1,2-dichloroethane (4%). Samples representing the northwest corner of Unit A (A5) and the northeast corner of Unit B (B1) contained the most number of detected VOCs. Concentrations of all VOCs decreased with distance from the landfill units. Based on this

investigation, it was recommended that a perimeter extraction trench was to be included in the landfill closure plan to mitigate future gas migration (RUST 1995). These data demonstrate that prior to closure, vapors from the landfill were present in shallow soil immediately surrounding the landfill units and decreased with increasing distance from the landfill units.

As part of an investigation conducted by Weston Solutions Inc. (Weston, 2003) to determine nature and extent of landfill impacts, 44 shallow soil vapor samples were collected between July 29, 2002 and August 1, 2002 from points evenly spaced approximately every 50 feet and from a distance of 10 to 15 feet from the perimeter edge of both landfill units. An additional 21 soil vapor samples were collected at a distance (100 feet) from the perimeter locations if an analyte was detected in the initial perimeter sample at a concentration greater than twice the method reporting limit. This investigation identified TCE and PCE in 21 and 7 of the 44 perimeter shallow soil vapor samples, respectively. The majority of the detections and highest concentrations of VOCs were identified in soil vapor samples collected along the western perimeters of both landfill units. There was no detection of any compound on the limited target analyte list in any soil vapor sample collected along the eastern perimeter of either unit. In addition, five soil vapor samples were collected at each of five soil boring locations representing the area immediately adjacent to the landfill site from a depth of 15 ft bgs. TCE and toluene were detected in all five samples and PCE was detected in three samples.

Based on these results, four deep soil borings were installed along the western side of the closed landfill (SB-1 through SB-4). Samples from boring SB-3 extend from ground surface to 111 ft bgs and samples from SB4 represent depths from 111 to 201 ft bgs. At all locations, soil vapor samples were collected into 1-liter Tedlar bags from each boring every 10 feet in depth to a final depth of 200 ft bgs and analyzed for VOCs by EPA Method 8260B. A total of five VOCs were detected—TCE, PCE, benzene, toluene, and xylenes. TCE was detected in 95% of the samples analyzed at SB-1 and SB-2 and in 85% of the samples analyzed from SB-3/4. PCE was also detected at a high frequency in samples from SB-2 (95%) and SB-3/4 (80%); PCE was detected in only 4 of 20 samples from SB-1. Both of these chlorinated VOCs were detected at higher concentrations in samples collected from depth intervals of 110 to 130 ft bgs and at 50 to 70 ft bgs, relative to samples collected from intervening depth intervals. During activities to install these soil borings, three apparently contiguous sand lenses were encountered at 3 depth intervals (101 to 126 ft bgs, 172 to 225 ft bgs, and 444 to 644 ft bgs; HGC, 2004a), which likely accounts for the fluctuating vapor concentrations with depth.

In order to provide soil vapor data representative of conditions at potential off-site locations surrounding the landfill, 11 shallow soil vapor samples (and one field duplicate sample) were collected in December 2007 for VOC analysis from temporary monitoring points spaced evenly along the southern perimeter (SV-1 through SV-8) and south western perimeter (SV-9 through SV-11) of the PTRL site boundary (AMEC, 2008). The detected VOC concentrations were highest among the shallow soil vapor samples closest to the landfill and dropped by an order of magnitude or more with increased distance from the landfill units.

3.5.2 Soil Vapor Monitoring Wells

As part of the interim measure investigation in 2003, six soil vapor monitoring wells were installed at the landfill in 2003, with screened intervals ranging between 75 and 80 ft bgs to

between 560 and 600 ft bgs (Figure G-1; HGC, 2004a). Their construction details are summarized in Table G-3. Groundwater monitoring wells MW-2 and MW-5 are also being used for soil vapor monitoring through the use of inflatable packers, with sampling intervals between 632 to 640 ft bgs and the water table. Soil vapor wells SGS-Well and SGD-Well are being used as part of the soil vapor extraction (SVE) system described in the Soil Vapor Extraction System section. Soil vapor sampling results at the six vapor monitoring wells are included in Appendix G-3. Concentration versus time plots for SGS-SP, SGS-Well, SGD-SP, SGD-MP, and SGD-DP are presented in Figures G-6a through G-6t. The concentrations for SGD-Well are not plotted because this well is used for air injection during SVE system and therefore infrequently sampled. On the few occasions that SGD-Well was sampled, the results are either non-detects or very low, as shown in Appendix G-3. The periods when the SVE system is operating in extraction/injection mode are shown on Figures G-6a through G-6t. Although the SVE system commenced operation in June 2006, the system started with both wells in extraction model and operated infrequently until November 2006 when the system began operation with SGS-Well in extraction mode and SGD-Well in injection mode. Therefore, Figures G-6a through G-6t show that the SVE system began operation in November 2006.

The conclusion of an interim measure investigation conducted in 2003 was that soil vapor concentrations from the landfill decrease rapidly with depth below the landfill and that soil vapor concentrations above the water table (approximately 640 ft bgs) are not likely to cause groundwater concentrations in excess of water quality standards (HGC 2004b). The soil vapor sampling results at these monitoring wells indicate that VOC concentrations in soil vapor have been decreasing over time.

3.5.3 Soil Vapor Extraction System

A SVE system, which consists of two soil vapor wells (SGS-Well and SGD-Well) and an activated carbon vapor treatment system, was installed at the landfill in June 2006 as an interim measure. The SVE system operated infrequently between June 2006 and April 2007, stopped operating until November 2008, and has resumed operation since then (AMEC, 2009). The system is powered by solar panels, and has been operating approximately 10 hours per day (HGC, 2009). In some months (e.g. September 2009; HGC, 2009), the SVE system was not fully operational due to equipment problems. Air is injected into well SGD-Well at a rate of approximately 40 ft^3/min, while soil vapor is extracted from well SGS-Well at a rate of approximately 90 ft^3/min. Samples have been collected from the influent to the treatment vessels and effluent from the treatment vessels for VOC analysis. The SVE influent sampling results are presented on the same plots as SGS-Well in Figures G-6e through G-6h. SVE influent sampling results are the data collected during SVE operation. The influent sampling results indicate that VOC concentrations in extracted soil vapor have been decreasing over time.

3.6 GENERAL MONITORING PROGRAM REQUIREMENTS

3.6.1 Description of Wells

Groundwater monitoring during the post-closure period will be performed using the four existing groundwater monitoring wells: MW-2, MW-3, MW-4, and MW-5.

3.6.2 Sampling and Analytical Procedures

The Post-Closure Period Groundwater Detection Monitoring Plan is provided in Appendix G-2. Revisions to the sampling and analysis procedures will be incorporated as necessary into the plan based upon the latest accepted techniques and methodologies.

Groundwater samples will be analyzed for inorganic constituents, VOCs, SVOCs, and organochlorine pesticides using the following analytical methods as specified in the Post-Closure Permit:

- Inorganic constituents:
    - Manganese (Mn): EPA Method 200.7
    - Sodium (Na): EPA Method 200.7
    - Chloride (Cl): EPA Method 300.0
    - Sulfate (SO42-): EPA Method 300.0
- VOCs: EPA Method 524.2
- SVOCs: EPA Method 8270C
- Organochlorine pesticides: EPA Method 8081

Organochlorine pesticides are the only pesticide group proposed for monitoring because, among the three types of pesticides that are suspected to have been disposed in the landfill (organochlorine, organophosphate, and carbamate), organochlorine pesticides are the most persistent in the environment and can bioaccumulate. In contrast, organophosphate pesticides are usually not persistent in the environment, while carbamate pesticides only have moderate toxicity and persistence in the environment.

Groundwater samples will also be analyzed for radionuclides in accordance with Arizona Radiation Regulatory Agency (ARRA) Radioactive Material License 10-24.

For all sample analyses, electronic data deliverables (EDDs) compliant with the most recent version of the ADEQ Groundwater Data Submittal Guidance Document will be requested from the analytical laboratory at the time of sample submission. Where appropriate, the EDDs will utilize pre-defined entries identified in lookup tables referenced in the data submittal guidance document. The EDDs will be forwarded to ADEQ prior to submission of the Semi-Annual Monitoring Report, but no later than 90 days after samples were received at the laboratory.

3.6.3 Background Groundwater Quality

In the 1997/1998 permit application, well-specific background groundwater quality values (lower range indicators, upper range indicators, and alert levels) for pH, conductivity, temperature, chloride, sulfate, manganese, and sodium were calculated from historical data obtained from the most recent twelve sampling events. The tolerance interval method procedure was used, following the ADEQ, Waste Programs Division, Solid Waste Section's "Alert Level Guidance for Solid Waste Facilities - 1995" (Appendix G-4).

For each well (MW-2, MW-3, MW-4, or MW-5), the alert levels for chloride, sulfate, manganese, and sodium have been.re-calculated using all available data between 1985 and 2011. The lower and upper range indicators for pH, conductivity, and temperature are kept the same as in previous permit application. The background groundwater quality is summarized in Table G-6a. Details of alert level calculations are presented in Tables G-6b through G-6e. These numeric values will be used for intrawell comparison. The calculation of alert levels is described below.

Consistent with the ADEQ's 1995 guidance and previous calculations, an alert level is calculated as the 95% confidence upper tolerance level (UTL) with 95% coverage. The procedure generally follows the ADEQ's 1995 guidance. However, instead of using statistical tables, the statistical software Scout (version 1.00.01), which is published by the U.S. EPA, was used. The Scout software contains more advanced and current statistical methods than what were available in 1995, particularly for datasets with non-detects at multiple reporting limits and datasets that do not follow known distributions. The procedure is as follows.

1. When results from duplicate samples are present, one of the results is randomly selected for use in calculating alert levels. This is necessary because including both results will lead to underestimation of sample variance.

2. The data are visually inspected for long-term temporal trends. No long-term temporal trend is identified.

3. The data are screened for suspected outliers using graphical plots and statistical tests. Unless supported by strong evidence, suspected outliers are kept in the data for alert level calculations. The only outliers that were excluded are sample results on September 20, 1985, as the data are orders of magnitude lower than the other data for all three wells (MW-2, MW-3, and MW-4), which indicated a laboratory or transcription error.

4. The data are used to calculate 95% UTLs with 95% coverage. For datasets that contain non-detects at multiple reporting limits or do not follow known distributions, the Kaplan-Meier method, which is a non-parametric method, is typically recommended. Tables G-6b through G-6e lists the statistical method used for each constituent.

3.6.4 Alert Levels for VOCs, SVOCs, and Organochlorine Pestcides

Alert levels for VOCs, SVOCs, and organochlorine pesticides that have federal maximum contaminant levels (MCLs) are proposed as 80% of the MCLs, as shown in Table G-7.

During the post-closure detection monitoring, the monitoring data will be compared to the corresponding Alert Levels for the analytes discussed above to determine if a significant difference exists.

3.7 DETECTION MONITORING PROGRAM

3.7.1 Hazardous Waste Constituents

The bulk of wastes disposed of in Page Landfill consisted of laboratory wastes, low-level radioactive and chemical. Inventory of typical wastes disposed of at Page Ranch Landfill is shown in Appendix G-5. About 10 percent of items on the list represent approximately 90 percent of the materials disposed of at Page Ranch Landfill. The most predominant chemical wastes included ethanol, hexane, toluene, methanol, sulfuric acid, hydrochloric acid, and acetic acid (UA, 1997).

3.7.1.1 Behavior of Contaminants

The following is a discussion of environmental fate and transport of the major types of waste constituents at Page Ranch Landfill.

HEAVY METALS

Heavy metals present in the wastes disposed of at Page Ranch landfill include cadmium, chromium, copper, nickel, lead, mercury, and arsenic. These metals, with the exception of mercury, can only be transported in the aqueous phase. Precipitation, complexation, adsorption, ion exchange, and redox conditions at the site thus control transport of these metals. Primarily due to Solubility and adsorption constraints, there is very limited downward migration of heavy metals. Downward migration of heavy metals is even further reduced in subsurface systems with low permeabilities, such as clays and caliche. Mercury is the only metal that can volatilize, thus limiting the amount of material to migrate downward. In terms of potential groundwater contamination, metal movement by water is of the most practical significance.

PESTICIDES

General Properties of Pesticides

Within the broad heading of pesticides, however, are a variety of types of pesticides and chemical classes. Table G-4 is a list of the pesticides, by class, representative of those that may have been disposed of in the landfill.

Transportation of pesticides in soil may occur in many forms, including migration with water in the dissolved or suspended state, with soil particles in the adsorbed state, or with soil air in the vapor state. In terms of potential groundwater contamination, however, pesticide movement by water flow is of the most practical significance (Triegel and Guo, 1994).

The behavior of pesticides in the soil-water system is governed by the properties of both the compounds and the soil constituents, as well as the hydrogeology of the area and climatic factors. The various chemical properties that can impact pesticide migration include chemical structure, molecular weight, melting point, solubility, ionizability, volatility, heat of solution, lipophilicity, decomposition temperature, soil retention, and soil longevity. A composite picture of all the chemical and physical properties of a pesticide would be the ideal circumstance for predicting the behavior of a given pesticide in the environment. However, in many cases these values are not available and in most cases it is essential to know only key properties, such as ionizability, water solubility, volatility, soil retention, and longevity (Weber, 1994).

Mobility of Pesticides Disposed at the Site

Table G-5 presents the available chemical properties data for the pesticides present at the landfill. The following text discusses each chemical class generally.

Carbamates -- The carbamate pesticides found at the landfill range from virtually insoluble (Advantage) to moderately soluble (Temik). Volatility varies similarly. As would be expected, soil retention shows the same pattern.

Advantage and Betanal have moderate soil retention properties and will not tend to migrate far in the soil column. Furloe and especially Baygon and Temik have low soil retention and would be more likely to migrate downward with percolating water. Offsetting this somewhat are the moderate to short half-lives of these compounds. Under field conditions, these types of pesticides have been shown to persist for a few days to a few months. This is the result of both microbial transformation and chemical hydrolysis, particularly at higher pH values (alkaline soils).

Chlorinated Hydrocarbons -- The chlorinated hydrocarbon pesticides are known for their persistence in the environment. However, they tend to have very low solubility and volatilization potential. Consequently, they do not tend to migrate very far in the soil column. Rather, they tend to persist relatively near to the point of deposition. DDT is susceptible to hydrolysis under alkaline conditions (Montgomery, 1993).

Acidic and Hydroxy Acid Herbicides -- The acidic herbicides tend to be very mobile in soils, especially alkaline soils. On the other hand, these herbicides tend to have relatively short half-lives (less than one month). Consequently, if ground water is sufficiently deep and site soils such that water will move slowly through the soil column, these herbicides would be expected to degrade before ever reaching an aquifer.

Quaternary Nitrogen Pesticides -- These types of pesticides are highly soluble, but their soil retention tends to be independent of solubility due to their cationic nature. Paraquat, for instance, is readily sorbed to the cation exchange complex of soils in exchange for inorganic cations (Weber, 1994). Clay minerals are the chief binding sites. These tend to be relatively long-lived compounds, particularly when bound. However, in clay soils migration would not be expected.

Basic Pesticides -- These types of pesticides tend to be relatively mobile in soils. On the other hand, these herbicides tend to have relatively short half-lives (less than one month). Consequently, if ground water is sufficiently deep and site soils such that water will move slowly through the soil column, these herbicides would be expected to degrade before ever reaching an aquifer.

Organophosphate Pesticides -- As is evident from Table G-5, the properties of the organophosphate pesticides vary widely. Consequently, it is impossible to generalize about mobility. Depending on the particular pesticide involved, soil mobility may range from high (Azodrin) to moderate {Dursban}. However, all of these pesticides tend to have relatively short half-lives (generally from a few days to one month). The microbial breakdown products tend to be less mobile than the parent compounds. As a result, mobility as measured in the field often is less than the chemical properties would predict (Weber, 1994).

Thiocarbamates -- The most important characteristic of the thiocarbamate herbicides is their volatility. Any significant migration of these pesticides is in the vapor phase. They are not highly water-soluble and have low soil retention. Additionally, they tend to be relatively short lived due to their susceptibility to microbial degradation.

Other Pesticides -- The other pesticides listed on Table G-4, although widely different in chemical structure, show similar behavior in soil. All are practically insoluble with low volatility and high soil retention characteristics. In addition, they have short to moderate half-lives. As a result, these pesticides will tend to be retained near to their original point of deposition until degraded.

PHENOLS

Phenol is highly soluble and does not tend to adsorb onto soil. Consequently the basic phenol molecule is very mobile in soil. However, phenol is also readily biodegradable. Half-lives of 2 to 5 days in soil are not uncommon. The exception would be in the cases where spills of high concentrations of phenol destroy degrading microbial populations. Phenol is volatile, and a significant percentage of phenol spilled to soil surfaces will evaporate (Howard, 1991).

Despite the reported mobility of phenol, the molecule does not tend to move by itself. Rather, it will migrate with percolating soil water. If there is no percolating soil water, the phenol will not migrate. If the percolating water moves sufficiently slowly, as at the site, the likelihood of biodegradation prior to reaching ground water is very high. The high evaporation rate at the site would also tend to volatilize phenol, further limiting the amount of material available to migrate. Consequently, it appears unlikely that phenols would ever reach ground water at the site.

ORGANIC SOLVENTS

Major organic solvents known to have been disposed of at the landfill are primarily ethanol, hexane, toluene, acetic acid, and methanol, followed by chloroform, acetone, methylene chloride, propanol, trichloroethane, and trichloroethylene. The fate and transport of these compounds in the environment is a function of their nature, quantity/rate of release, the nature of the subsurface beneath the point of release, their biodegradability, infiltration, and water balance. Organic solvents may be transported as free liquids, dissolved in water, or as vapors.

Downward migration of free liquids is controlled by soil capillary actions (called residual saturation) and adsorption. The actual penetration distance for free liquids is influenced by soil heterogeneity and the amount and type of the chemical. For a free liquid to migrate in soil, the quantity of the released chemical must exceed the residual saturation. If the released volume of an organic solvent is sufficient, the liquid solvent will continue to move downward until reaching a lower-permeability layer, such as clay or caliche. At this point, the chemical will tend to move laterally, depending on the volume that reached that layer, with a minimal downward movement. In case of very small volumes, lateral spreading will also be minimal.

Some of the chemicals in the unsaturated zone may dissolve in percolating rainwater and continue to migrate downward. The concentrations of the dissolved chemical may range widely, depending on their solubility, rate of infiltration, and the time and area of contact between the chemical and the infiltrating water.

Organic solvents may also volatilize from the migrating liquid, the residual saturation, or the dissolved phase, and become part of the gas phase. These vapors migrate away from the evaporation source; depending on their densities, they can move upward, downward, and/or radially. Diffusion rates are strongly influenced by subsurface geologic heterogeneities, soil porosity, moisture conditions, vapor source concentrations, the presence of preferential pathways, and pressure and temperature gradients. Since the vapor plumes move faster than the dissolved and liquid plumes, detectable soil vapor concentrations can be found in soil beyond the area of liquid plumes. These vapors can also dissolve either in pore waters and continue to migrate as a dissolved phase or in groundwater.

3.7.1.2 Conclusions

HEAVY METALS

Transport of heavy metals is controlled primarily by their solubility, precipitation, adsorption, ion exchange, and complexation, site evapo-transpiration, and the permeability/porosity and redox potential of the site subsurface. At the site, the deposits of caliche and clay directly beneath the site, the lack of infiltration due to the final cap and high evapo-transpiration, and a depth to groundwater indicate that it is unlikely that heavy metals would ever reach the aquifer at a depth of 650 feet.

PESTICIDES

There appear to be two general types of pesticides at the site, long-lived immobile pesticides and mobile but readily degradable pesticides. The high clay content of the site soils will tend to retard migration of even the more mobile pesticides. The site evapo-transpiration rate will favor the loss of the more volatile pesticides. Furthermore, migration cannot proceed in the absence of percolating water. The final cap and the site water balance is such that very little, if any, water can routinely percolate downward from the site. In addition, the longest lived of the mobile pesticides at the site have half-lives on the order of 6 weeks. It is thus very unlikely that any of these pesticides would ever reach the aquifer at 650 feet.

PHENOLS

Phenols migrate with percolating soil water. If there is no percolating soil water, the phenol will not migrate. If the percolating water moves sufficiently slowly, as at the site, the likelihood of biodegradation prior to reaching ground water is very high. The high evaporation rate at the site would also tend to volatilize phenol, further limiting the amount of material available to migrate. Consequently, it appears unlikely that phenols would ever reach groundwater at the site.

ORGANIC SOLVENTS

Depending on the nature of the chemical, downward migration of organic solvents can proceed in three different forms: free liquid, dissolved phase, and/or vapors. The amount and nature of the chemical and its biodegradability, infiltration, water balance, and soil heterogeneity will influence their actual penetration distance. Of the types of chemicals discussed, VOCs are the only ones that can potentially migrate to the aquifer.

3.7.2 Subsurface Investigations

3.7.2.1 Groundwater Monitoring

Groundwater monitoring data are described in the Interim Status Groundwater Monitoring Data and Post-Closure Period Groundwater Monitoring Data sections. Groundwater monitoring data are included in Appendix G-1.

3.7.2.2 Soil Vapor Monitoring

Soil vapor monitoring data are described in the Soil Vapor Monitoring Data section. Soil vapor monitoring data are included in Appendix G-3.

3.7.2.3 Soil Data

In January 1989, prior to closure activities, an investigation of the potential for hazardous waste materials to exist outside of the landfill units was conducted (EEC, 1989b). Based on the results of a soil vapor survey in July 1988 (Appendix A to EEC, 1989b), 10 subsurface soil samples were each collected from areas with elevated vapor concentrations (see next section) from a depth of 15 feet (ft) below ground surface (bgs) at a distance of 12 ft from the perimeters of Unit A and Unit B. An additional four soil samples were collected approximately 100 feet beyond the landfill perimeter. A background soil sample was also collected approximately 500 ft beyond the northeast corner of Unit A. All soil samples were analyzed for extraction procedure (EP) leaching test for metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver) and VOCs by EPA Method 8010 and 8020. At four locations, additional soil samples were collected from depths of 25 and 35 ft bgs and analyzed for VOCs only (EEC 1989b). All detected concentrations of VOC and metals were below the lowest Arizona Soil Remediation Levels (SRLs), which are protective of residential exposures (R-SRLs) (Arizona Administrative Code [AAC] Title 18, Chapter 7, Article 2). No patterns of detection were observed.

In August 2002, following landfill closure, a soil investigation was conducted to determine the nature and extent of compounds in soil surrounding the landfill (Weston 2003). Based on the results of a soil vapor survey conducted between July and August 2002, a total of 4 soil borings were installed to the west of the landfill (SB1 to SB4) extending from ground surface to approximately 200 ft bgs. A total of 57 soil samples (and soil gas samples) were collected continuously every 10 feet and were submitted for laboratory analyses (VOCs by EPA Method 8260B, SVOCs by EPA Method 8270, and organochlorine pesticides by EPA Method 8081). All four soil borings were located along the western edge of the landfill with SB-1 representing an area south and west of Unit B, SB-2 located in an area between the two landfill units, and SB-3/4 west of Unit A (see Figure G-2 in Weston 2003). No analyte was detected in any soil sample collected from a depth interval greater than 190 ft bgs and no volatile compound was detected in any soil sample collected from a depth interval greater than 140 ft bgs. All detected concentrations are below the lowest SRL.

Soil sampling data are included in Appendix G-6.

3.7.2.4 Summary of Subsurface Investigations

Subsurface investigations (groundwater, soil vapor, and soil data) indicated the following:

- Very low levels of VOCs in soil at shallow depths only.
- Levels of heavy metals in soil representative of background concentrations.
- There is no indication of groundwater contamination by organic or inorganic constituents.
- VOC concentrations in soil vapors are highest below the landfill and decrease with increasing distance from landfill and with increasing depth.

3.7.3 Indicators of Groundwater Contamination

As described in the 1997 permit application (UA, 1997), transport modeling performed by ADEQ indicated that as a class, volatile chemicals, such as methylene chloride, are far more mobile than phenols or pesticides, and therefore, if there ever is any impact to groundwater from the landfill, the volatile organics would be the first detected. Constituents that could be potentially released from the disposal units and migrate the approximately 650 feet vertical distance to groundwater include VOCs and soluble inorganics. Pesticides, SVOCs, and heavy metals are extremely unlikely to migrate this distance through soils that contain significant amounts of silt and clay particles, on whose surfaces they would become trapped. The detection monitoring program will include field and laboratory analysis for the following:

- pH - field measurements.
- Temperature - field measurements.
- Conductivity - field measurements.
- General water quality parameters, consisting of sodium, manganese, chloride, and sulfate - laboratory analysis.
- VOCs - laboratory analysis.
- SVOCs - laboratory analysis.
- Organochlorine pesticides - laboratory analysis.

3.7.4 Groundwater Monitoring System

3.7.4.1 Description of Wells

The groundwater monitoring system is described under General Monitoring Requirements - Description of Wells. Groundwater monitoring during the post-closure period will be performed using the four existing groundwater monitoring wells: MW-2, MW-3, MW-4, and MW-5.

3.7.4.2 Background Groundwater Quality and Alert Levels

Numeric values indicating background groundwater quality and alert levels for pH, conductivity, temperature, chloride, sulfate, manganese, and sodium are presented –in Section 3.6.3 (Table G-6a).

The alert levels for VOCs, SVOCs, and organochlorine pesticides are presented in Section 3.6.4 (Table G-7).

3.7.4.3 Sampling and Analysis Procedures

The proposed sampling and analysis procedures are described under General Monitoring Requirements – Sampling and Analysis Procedures and in the Post-Closure Period Groundwater Detection Monitoring Plan (Appendix G-2). Groundwater will be collected semi-annually, typically in the spring and fall, in accordance with the requirements of the Post-Closure Permit.

3.7.4.4 Statistically Significant Increases

If analytical results for manganese, sodium, sulfate, chloride, VOCs, SVOCs, or organochlorine pesticides exceed the Alert Levels as indicated in Tables G-6 and G-7 in any of the on-site monitoring wells in two consecutive groundwater sampling events, monitoring for specific analyte will change from twice a year or annual, as applicable, to twice the approved frequency, until the values fall within the calculated range of the intrawell comparison for three consecutive sampling events. This investigation will include, but will not be limited to, analyzing previously collected data of other analytes. UA will also consult with ADEQ regarding this issue.

If a determination is made based on the analytical data that AWQS specified in AAC R-18-11-405 have been exceeded in groundwater samples collected from the site monitoring wells, the following actions will be taken:

- ADEQ will be notified within seven days upon receipt of laboratory results indicating an exceedence of an AWQS.
- Retesting will be performed as described above.
- If laboratory analyses of verification samples indicate an exceedence of an AWQS, periodic monitoring will be increased as stated above.
- If laboratory analyses of verification samples indicate an exceedence of an AWQS, a report will be submitted to ADEQ within 30 days upon receipt of laboratory results. The report will include at a minimum the following:

- AWQSs which have been exceeded; and,
- The period of exceedence and remedial measures proposed.

- After a report is submitted, a meeting will be scheduled, if necessary, with ADEQ to discuss exceedence issues and alternative remedial activities.

3.7.5 Soil Vapor Monitoring System

3.7.5.1 Description of Monitoring Points

Soil vapor monitoring during the post-closure period will be performed using two existing groundwater monitoring wells, MW-2 and MW-5 (through the use of inflatable packers), six soil vapor monitoring points, SGS-Well, SGD-Well, SGS-SP, SGD-SP, SGD-MP, and SGD-DP, and the influent to the SVE system. The groundwater monitoring wells are described under General Monitoring Requirements – Description of Wells. The soil vapor monitoring points are described under Soil Vapor Monitoring Data – Soil Vapor Monitoring Wells. The SVE system is described in detail in the Operation and Maintenance Manual (Attachment C).

3.7.5.2 Sampling and Analysis Procedures

The proposed sampling and analysis procedures are described in the Post-Closure Period Expanded Groundwater Detection Monitoring Plan (Appendix G-2). Soil vapor samples will be collected semi-annually, typically in the spring and fall, from the groundwater monitoring wells and the soil vapor monitoring points. Soil vapor samples will be collected from the influent to the SVE system when the system is in operation, at a frequency no less than twice annually, which may be adjusted as needed to guide timing of carbon change out events. All soil vapor samples will be analyzed for VOCs using EPA Method TO-15.

3.7.5.3 Decision-making Based on Soil Vapor Sampling Results

The soil vapor sampling results will be used to:

- Supplement groundwater sampling results in assessing potential threats to groundwater quality;

- Assess whether additional actions are needed.

Summary of Soil Vapor Modeling

An existing calibrated 3D vapor diffusion model is used to evaluate the effectiveness of the existing monitoring points and SVE influent in detecting a new release from a remote location within the landfill, and to develop thresholds for additional actions. Same as previous modeling effort, the model considers only the flow of vapor and contaminant transport in the vapor phase through advection and diffusion. Liquid flow and contaminant transport in the liquid phase are beyond the scope of the modeling work. The model is first validated using observed data between 2004 and 2010. Then the model is used to develop minimum extraction and injection rates and maximum length of shutdown as minimum operational parameters for the SVE system. Simulation results show that operating the SVE system 25% of the time is equally as

protective of groundwater quality as operating it 100% of the time, although operating the SVE system beyond these minimum parameters would have the benefits of detecting new releases sooner, if a new release occurs. Simulation results also show that the extraction well creates pressure responses around both landfill units. The simulation work is described in detail in the revised Appendix G-7.

To evaluate the effectiveness of the soil vapor monitoring system and SVE influent, SGS-Well and SGD-Well are set in extraction and injection modes, respectively, in the model, while the extraction and injection rates are set at the proposed minimum operational parameters of operating 25% of the time. A constant concentration source is assigned to a model cell in the southwest corner of unit B, which is furthest away from SGS-Well, to simulate a release at a remote location. The source concentration is set at saturated vapor concentration of the indicator compound. Simulation results suggest that (1) for impact to groundwater quality to occur, source concentrations in the landfill need to be at elevated levels that are sustained over long period of time (e.g. longer than 10 to 20 years); and (2) all existing monitoring points and the SVE influent will detect a sharp increase in soil vapor concentrations at least 10 years before any potential impact to groundwater quality may occur. Therefore, these results suggest that the existing monitoring points and SVE influent can be used to monitor release at a remote location within the landfill.

For seven VOCs, thresholds for additional actions are developed for each monitoring point and the SVE influent. The purpose of the thresholds is to initiate actions to investigate whether groundwater quality may be impacted, and, if necessary, implement further actions to prevent such impact. In each simulation, constant concentration at source is set either at groundwater protection level (GPL) or at soil saturation limit when calculated GPL is higher than soil saturation limit. With a sustained source at elevated concentration, simulated concentrations at monitoring points and in SVE influent continue to increase before stabilizing at a plateau concentration in 10 to 20 years. Because the thresholds are designed to initiate actions before VOCs migrate too far downward, it is proposed to use 10 percent of the simulated plateau concentrations as the thresholds for additional actions, which typically occurs around 5 to 10 years after the simulated release. Operating the SVE system beyond the minimum requirements would reduce the time for the thresholds to be detected at the monitoring points, if substantial releases occur. The proposed thresholds are presented in Table G-8.

Additional Actions

When the concentrations of one of these VOCs exceed their thresholds in Table G-8 and a statistically significant upward trend (using the Mann-Kendall test or equivalent method) is present, UA will take the following actions:

- Immediately contact the analytical laboratory to confirm the results and perform data quality control reviews and validation.
- Within one week of verifying the analytical results, inspect the system and verify that the system has been in operation in accordance with normal operational requirements.

- If there have been no system upsets and the system has been operating normally, perform monthly sampling at all soil vapor monitoring points for three consecutive months.
- If data from the three monthly sampling events confirm the exceedance of the thresholds and the upward trend, UA will consult with ADEQ about further actions and submit a Response Action Plan within approximately three months. These further actions may include:
    a. Change SVE operation such that the SVE system at higher extraction/injection rates.
    b. Enhancement or modification of the existing SVE system to allow vapor extraction from additional locations or vertical zones;
    c. Perform shallow soil gas survey to investigate locations of potential release.
    d. Install additional soil vapor monitoring or extraction/injection well.

4. REPORTING

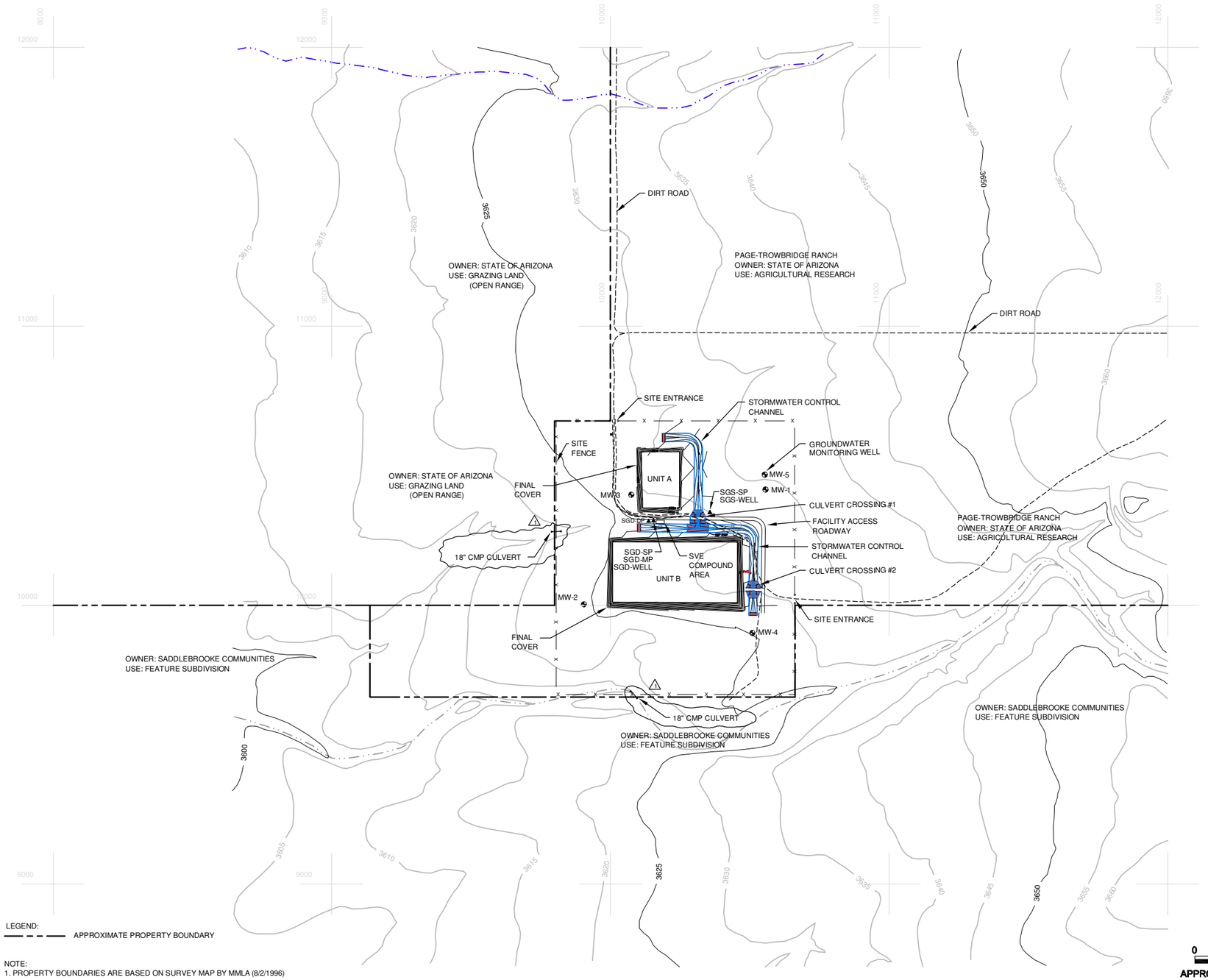
Results of the groundwater and soil vapor monitoring will be included in a written semi-annual groundwater monitoring report for submittal to ADEQ. The report will be prepared by UA personnel or its designee and will be due within 90 days of each semi-annual sampling event. The following will be included in each groundwater monitoring report:

- A narrative that summarizes the groundwater and soil vapor monitoring events and results in the previous six months. Summary of results will include a description of all verified detections, tentative detections, exceedance of alert levels in groundwater samples (if any), exceedance of soil vapor thresholds in soil vapor samples (if any), and results of statistical tests (if necessary). Soil vapor monitoring results will include all soil vapor samples, including monitoring points, SVE influent, between lead and lag adsorbent vessels, and SVE effluent. The narrative will also include any deviations from the EGDMP (if any) and any unusual conditions (if encountered).
- A narrative that summarizes operation of the SVE system (including runtime, downtime, flow rates)
- A description of maintenance activities, problems encountered, and corrective action implemented.
- QA/QC assessment of laboratory results and field measurements.
- Data from all groundwater and soil vapor sampling events presented in tabular or graphical format, including:
    - groundwater and soil vapor field parameters (depth to groundwater, pH, temperature, specific conductance, PID readings, vacuum pressure and flow rate),
    - analyses results (including all QA/QC samples),

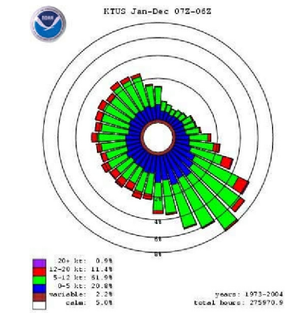
    - graphs of concentrations at each soil vapor monitoring locations for the previous five years.
- Field documents and laboratory reports for all monitoring events.
    - sampling logs,
    - chain-of-custody forms,
    - Laboratory analytical reports.
- Certification by UA or UA's authorized agent.

FIGURE G-1

TOPOGRAPHICAL MAP

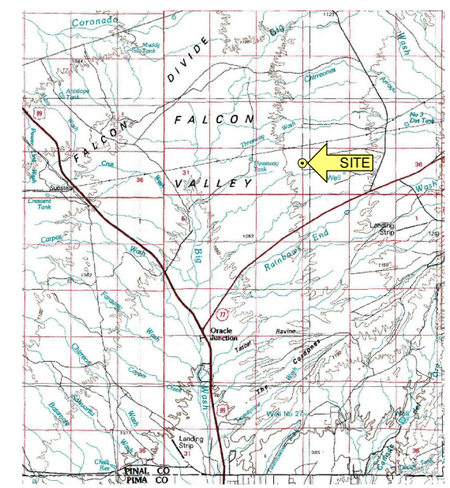


ALL WEATHER WINDROSE



SOURCE: U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER RECORD CENTER FOR YEARS JANUARY 1973 TO DECEMBER 2004.

LOCATION MAP



SOURCE: USGS MAMMOTH, ARIZONA 1986
1:100000 SCALE

LEGEND:
APPROXIMATE PROPERTY BOUNDARY

NOTE:
1. PROPERTY BOUNDARIES ARE BASED ON SURVEY MAP BY MMLA (8/2/1996)

0 200 400
APPROXIMATE SCALE IN FEET

SOURCE: STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, PHOENIX, ARIZONA DECEMBER 12, 1997.

REV	D	M	Y	ISSUE/REVISION DESCRIPTION	ENG.	APPR.
5						
4						
3						
2						
1						
5	15	11	2011	REVISED FOR PERMIT APPLICATION	ENG.	M.Z.
4	17	06	2011	ISSUED FOR PERMIT APPLICATION	XX.	M.Z.

Client Logo:

Client:
UNIVERSITY OF ARIZONA
P.O. BOX 210460
TUCSON, AZ. 85721-0460

AMEC Earth & Environmental
1405 West Auto Drive
Tempe AZ 85284-1016

DATUM: --
PROJECTION: --
DRAWN BY: APS
REVIEWED BY: MZ
ORIGINAL SCALE: AS SHOWN

PROJECT: PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

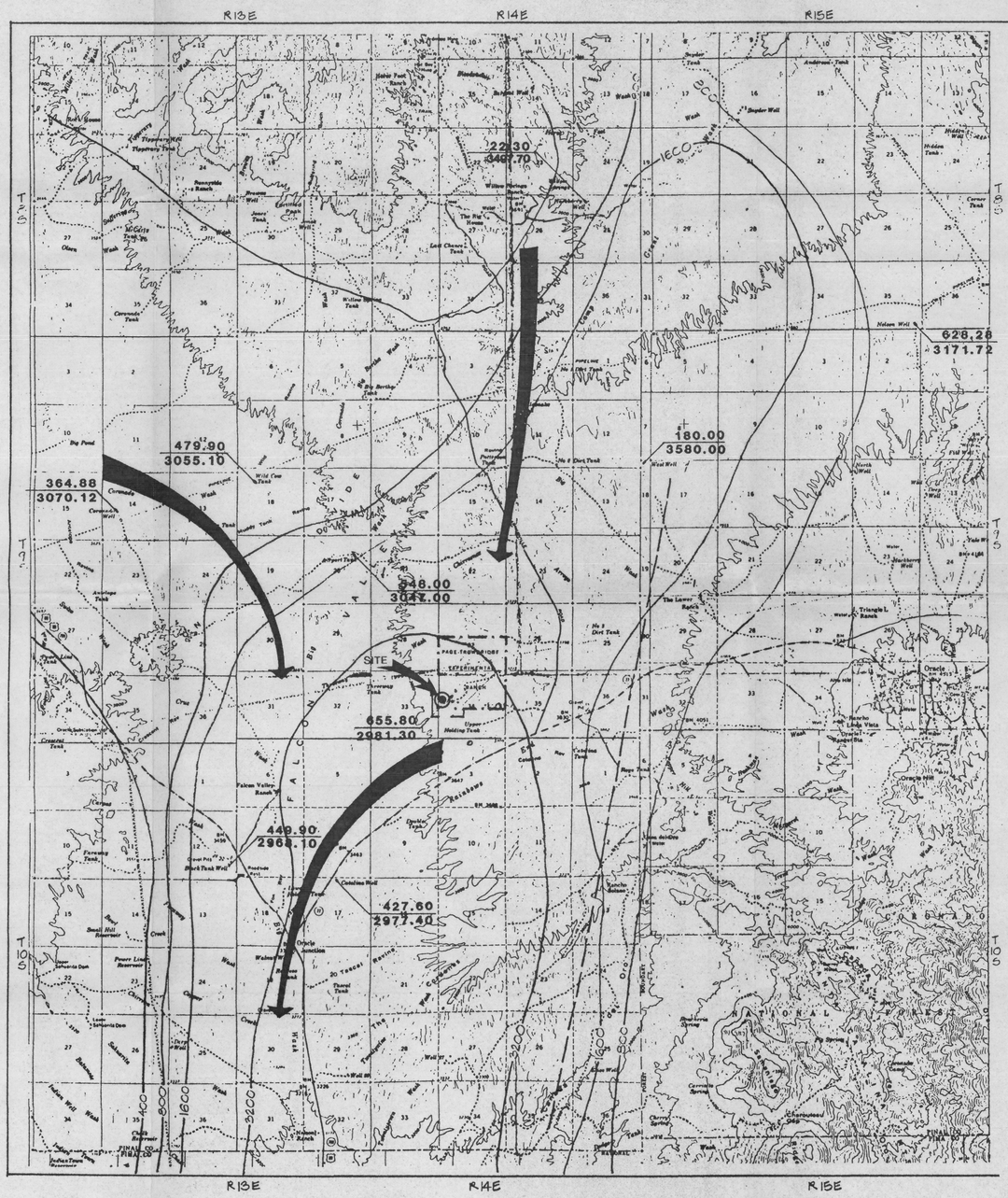
TITLE: TOPOGRAPHIC MAP

PROJECT NO.: A00377
REVISION NO. A
DATE: NOV 2011
DRAWING NO.: FIGURE 1R
SHEET NO.: _ of _

www.amec.com/earthandenvironmental

FIGURE G-2

GROUNDWATER FLOW MAP



LEGEND

- BEDROCK ELEVATION BELOW LAND SURFACE
- APPROXIMATE LOCATION OF PIRATE FAULT
- STATIC WATER LEVEL
- WELL
- ALTITUDE OF GROUNDWATER
- GROUNDWATER FLOW DIRECTION

GROUNDWATER FLOW VELOCITY AT THE FACILITY ESTIMATED TO BE 10 TO 100 FEET PER YEAR (OSTERKAMP, 1974)

N

0 2 miles

SOURCE: ENVIRONMENTAL ENGINEERING CONSULTANTS. INC., FEBRUARY, 1989

REV.	DATE	DESCRIPTION	CK. BY

SHEET TITLE: GROUNDWATER FLOW DIRECTION AND RATE

PROJECT TITLE: PAGE-TROWBRIDGE RANCH LANDFILL RCRA PART B POST CLOSURE PERMIT APPLICATION (EPA I.D. AZ98066584)

CLIENT: UNIVERSITY OF ARIZONA
P.O. BOX 210460
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SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS
2702 N. 44TH ST. SUITE 1059 PHOENIX, AZ 85008
PH. (602) 840-2596 FAX (602) 224-0572

PROJ. NO. 01P5014.03 | DWN. BY: JCB | Q/A RVW. BY: JZ
DSN. BY: JCB | CHK. BY: JZ | APP. BY: JZ

CADD FILE: 9503403D

DATE: 12/12/97

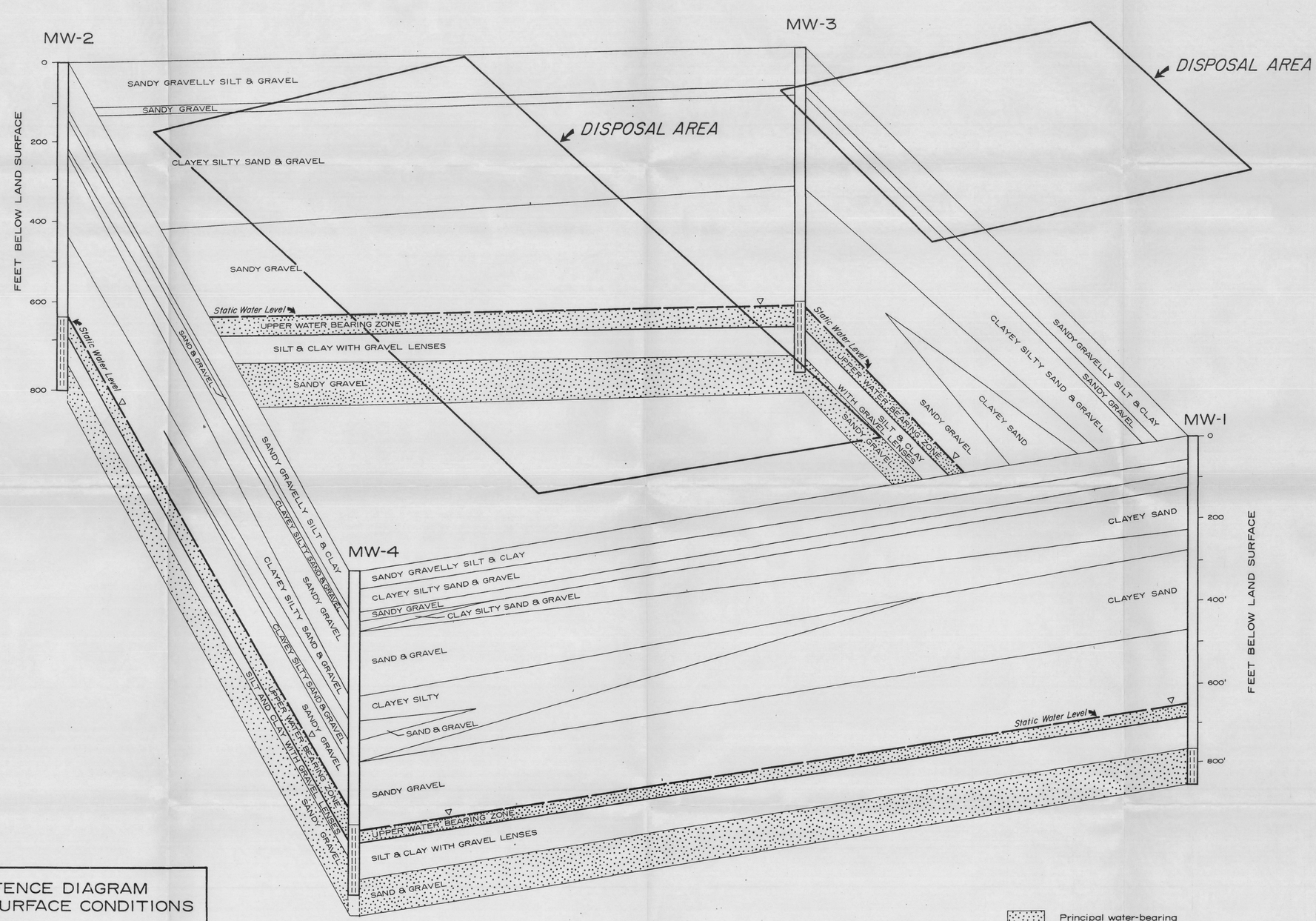
SCALE: AS SHOWN

FIGURE NO. 2

Reproduced from UA, 1997

FIGURE G-3

SUBSURFACE CONDITIONS



GENERALIZED FENCE DIAGRAM
SHOWING SUBSURFACE CONDITIONS
BENEATH
PAGE-TROWBRIDGE RANCH
DISPOSAL FACILITY

SOURCE: ENVIRONMENTAL ENGINEERING CONSULTANTS, INC., FEBRUARY, 1989

SHEET TITLE: SUBSURFACE CONDITIONS

PROJECT TITLE: PAGE-TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT
APPLICATION (EPA I.D. AZ98066584)

CLIENT: UNIVERSITY OF ARIZONA
P.O. BOX 210460
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SCS ENGINEERS
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PROJ. NO. 1905034.03	DWN. BY KCB	S/A PM BY JZ	
DSN. BY KCB	CHK. BY JZ	APP. BY JZ	

CADD. FILE: 9503403C

DATE: 12/12/97

SCALE: AS SHOWN

FIGURE NO. 3

Reproduced from UA, 1997

FIGURE G-4

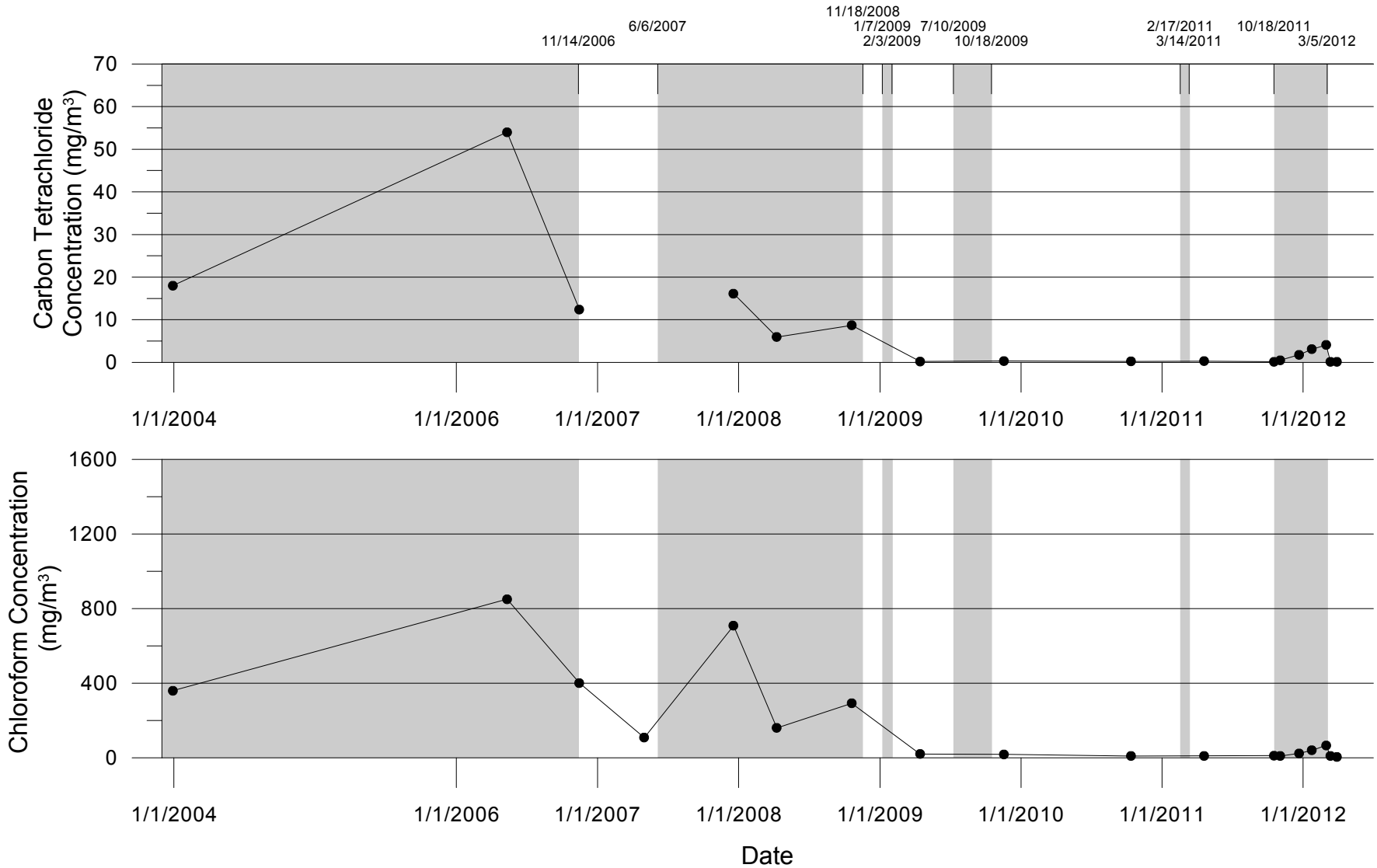
[RESERVED]

FIGURE G-5

[RESERVED]

FIGURE G-6a-t

SOIL VAPOR CONCENTRATION TRENDS



LEGEND

● Consituent concentration is above the reporting limit.

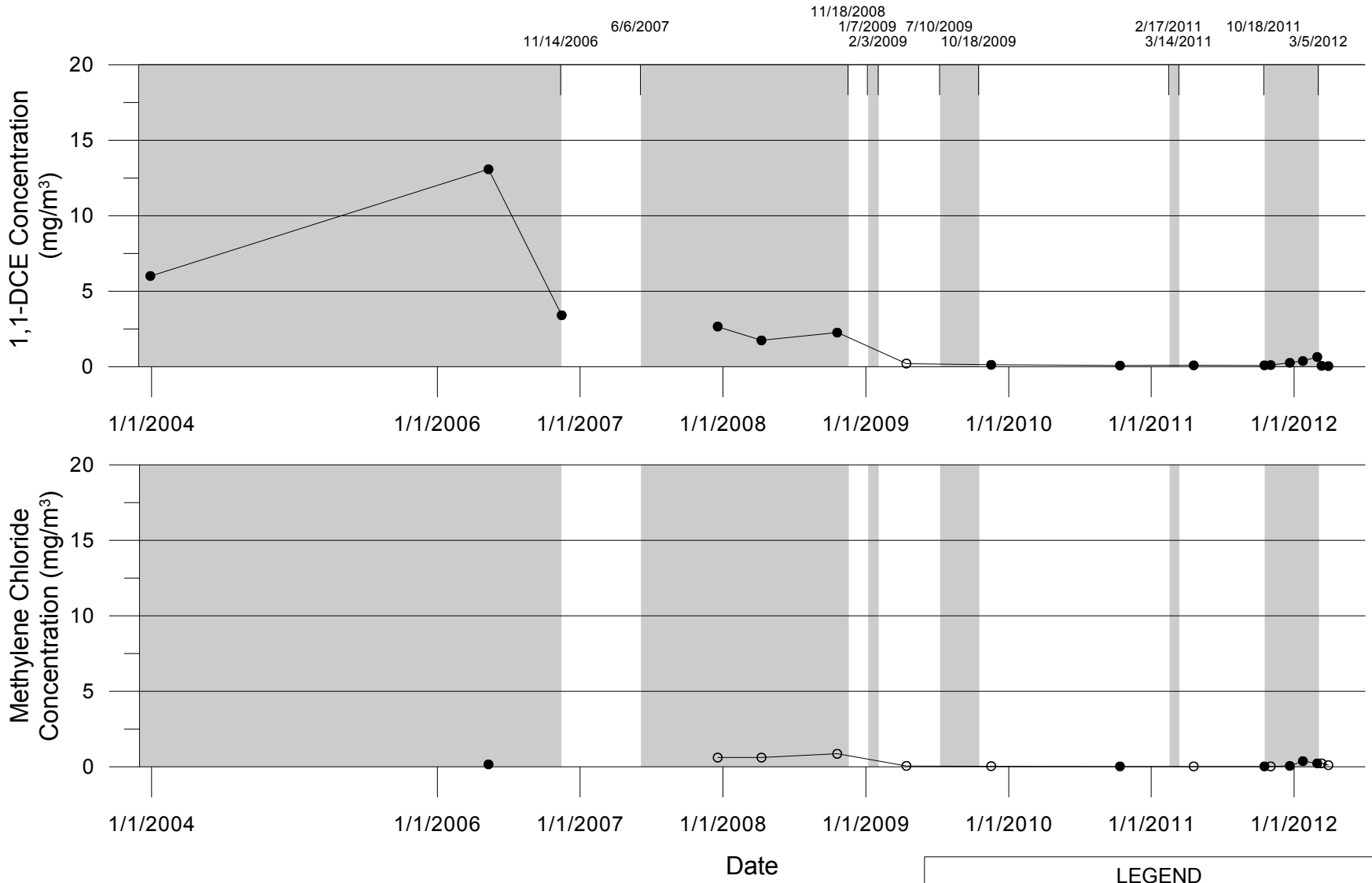
Soil vapor extraction system was nonoperational.

Note:
1.) A discontinuous line occurs where the the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
mg = milligrams
m = meter

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec	SGS-SP CARBON TETRACHLORIDE AND CHLOROFORM CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6a



LEGEND

- ● Constituent concentration is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.

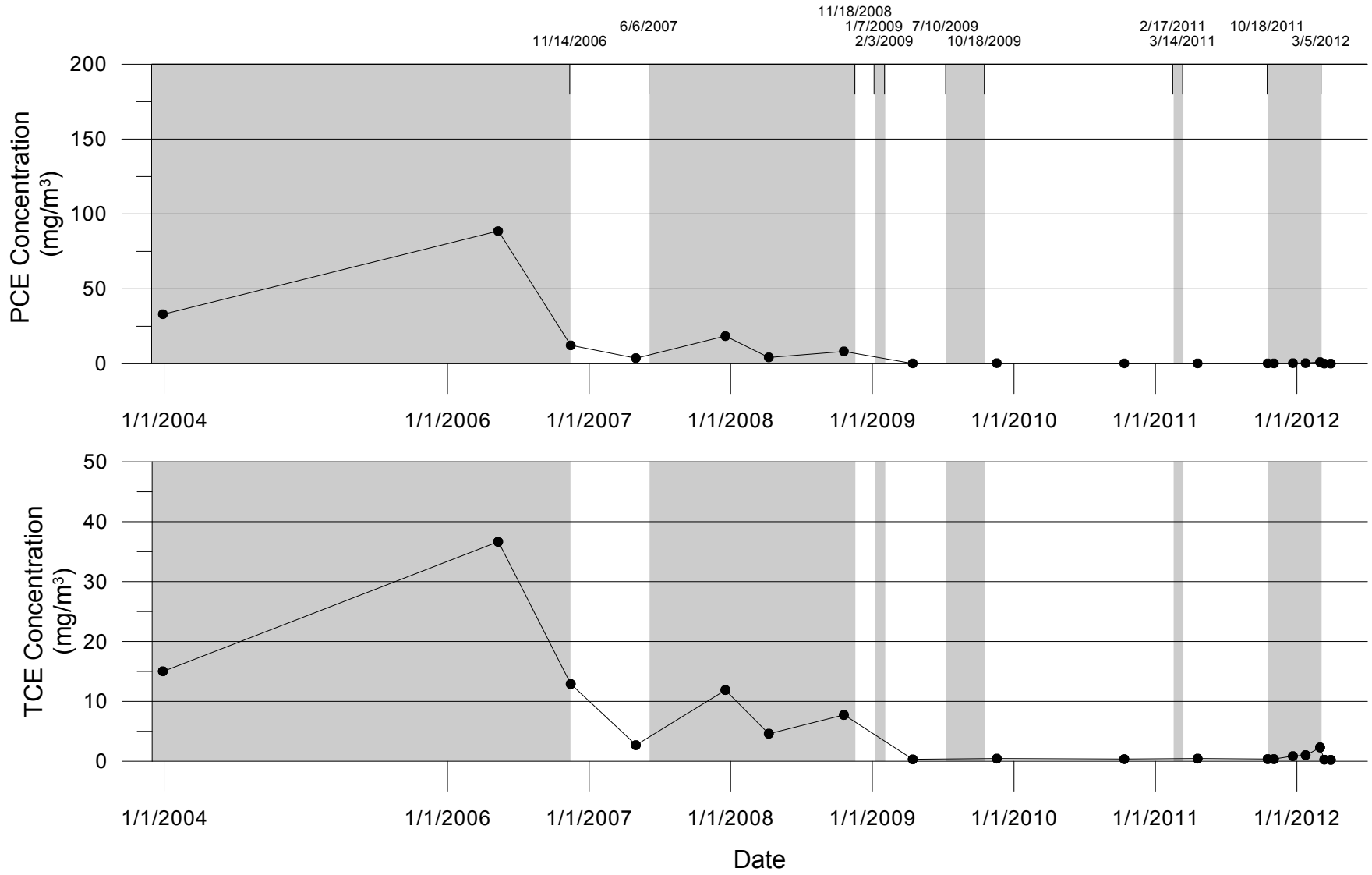
Abbreviations:
1,1-DCE = 1,1 Dichloroethene
mg = milligrams
m = meter

amec

SGS-SP 1,1-DCE AND METHYLENE CHLORIDE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6b

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

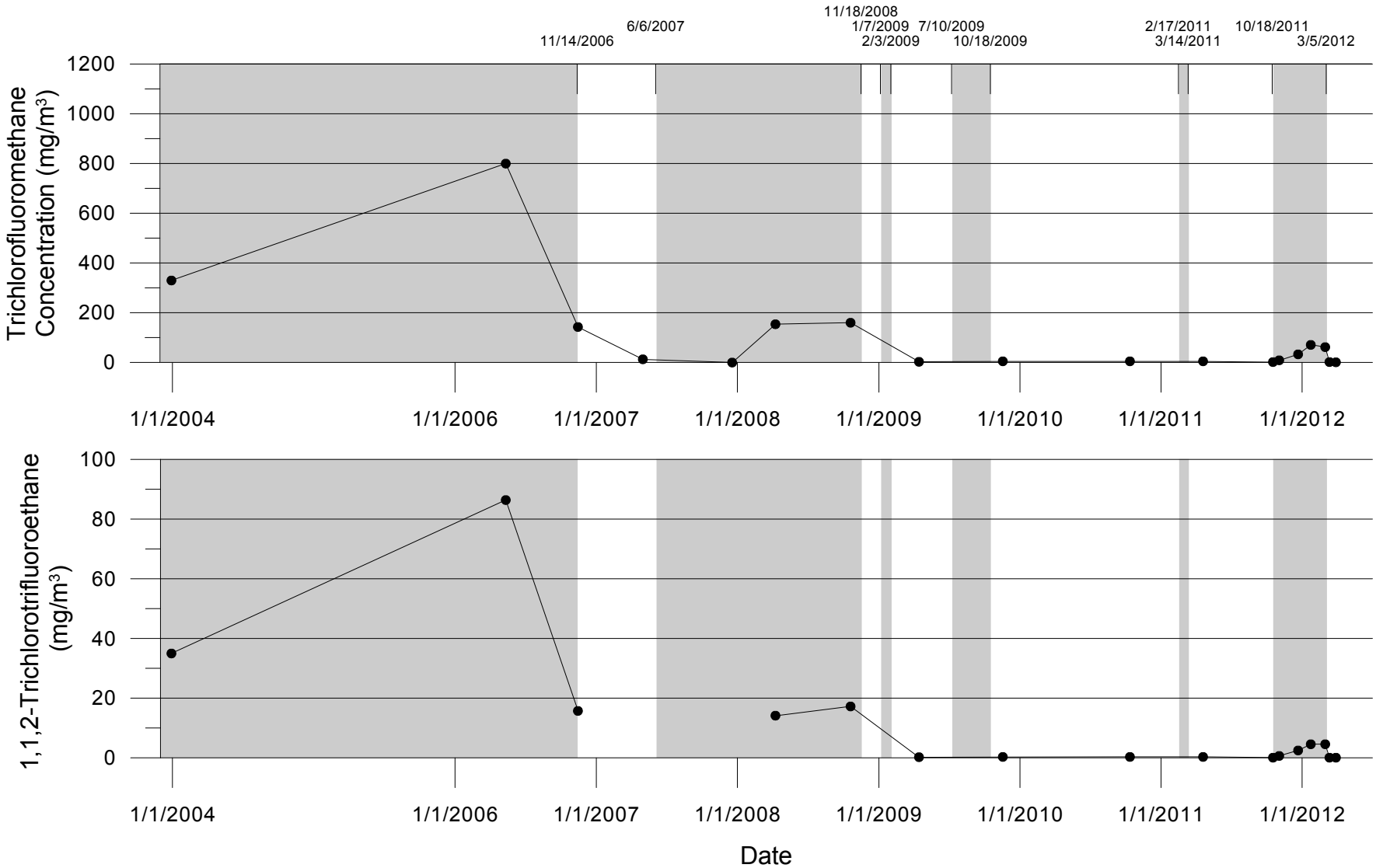


Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
mg = milligrams
m = meter

LEGEND
● Constituent concentration is above the reporting limit.
Soil vapor extraction system was nonoperational.

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec	SGS-SP PCE AND TCE CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6c



LEGEND

● Consituent concentration is above the reporting limit.

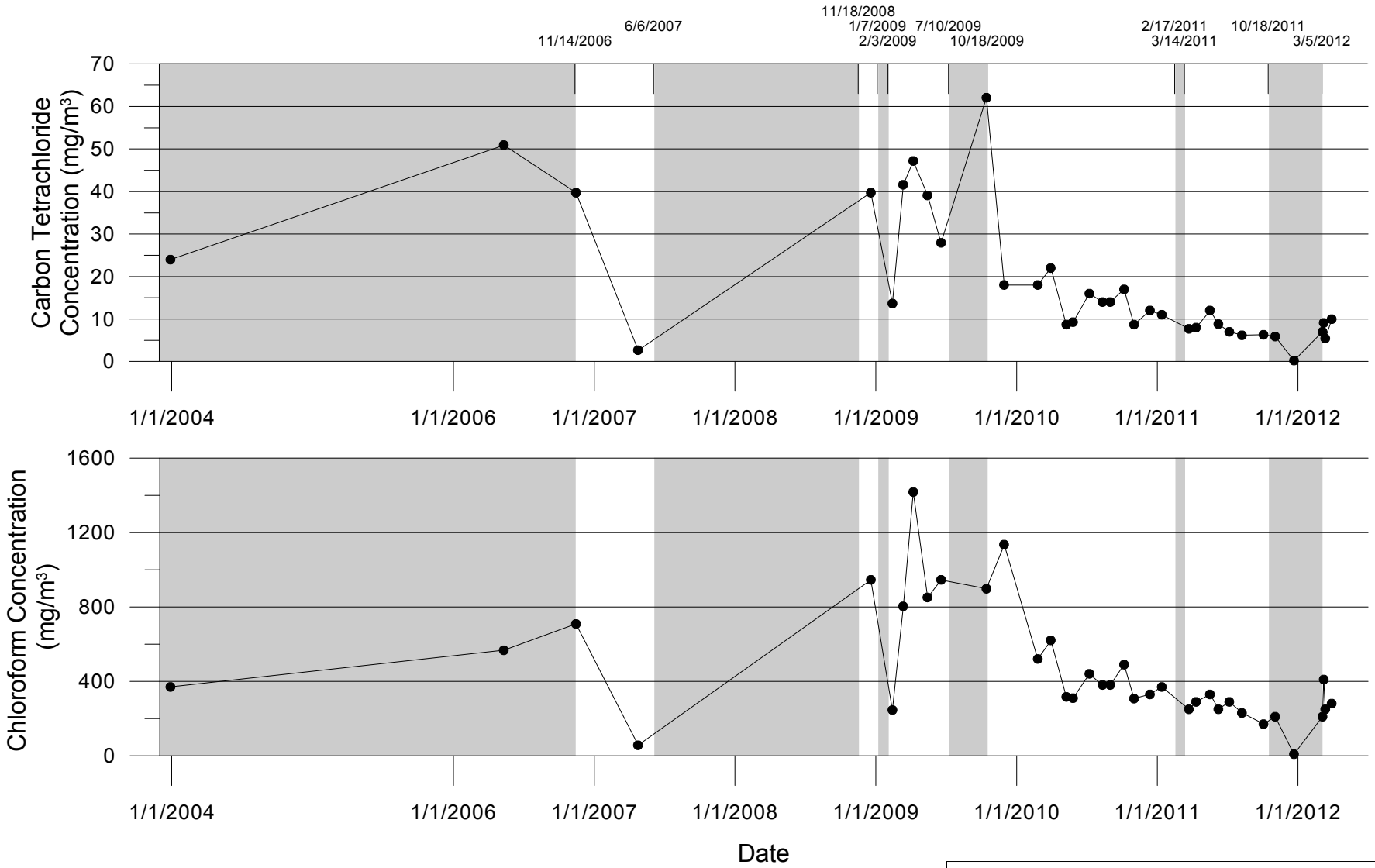
Soil vapor extraction system was nonoperational.

Note:
1.) A discontinuous line occurs where the the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
mg = milligrams
m = meter

amec	SGS-SP TRICHLOROFLUOROMETHANE AND 1,1,2-TRICHLOROTRIFLUOROETHANE CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6d

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



LEGEND

● Consituent concentration is above the reporting limit.

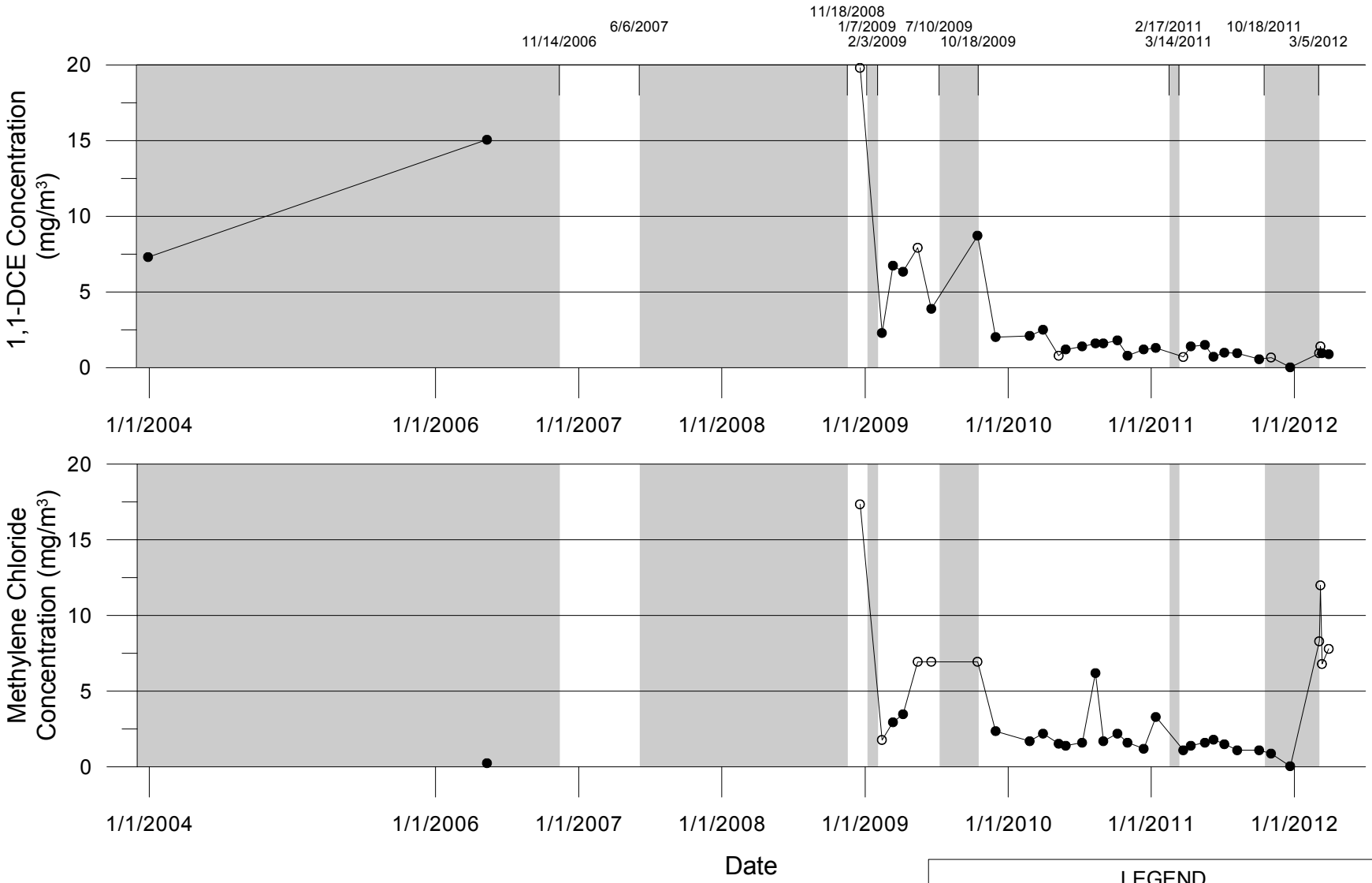
Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on 3/5/12 and 3/8/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
mg = milligrams
m = meter

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec	SGS-WELL CARBON TETRACHLORIDE AND CHLOROFORM CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6e



Note:
1.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.
2.) For field duplicates collected on 3/5/12 and 3/8/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
1,1-DCE = 1,1 Dichloroethene
mg = milligrams
m = meter

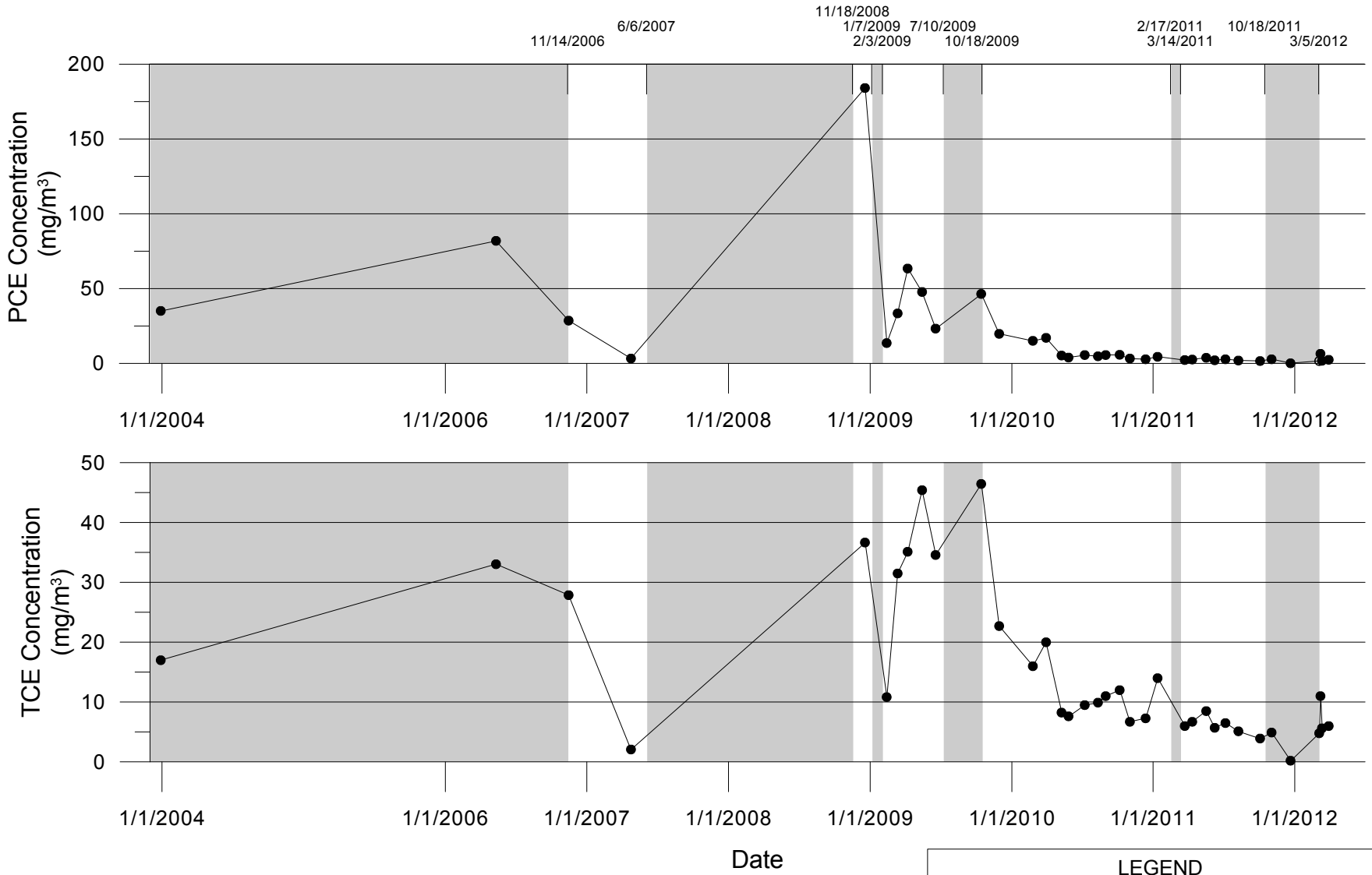
LEGEND
- ● Constituent concentration is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

amec

SGS-WELL 1,1-DCE AND METHYLENE CHLORIDE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6f

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
mg = milligrams
m = meter

LEGEND

- ● Constituent concentration is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on 3/5/12 and 3/8/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.

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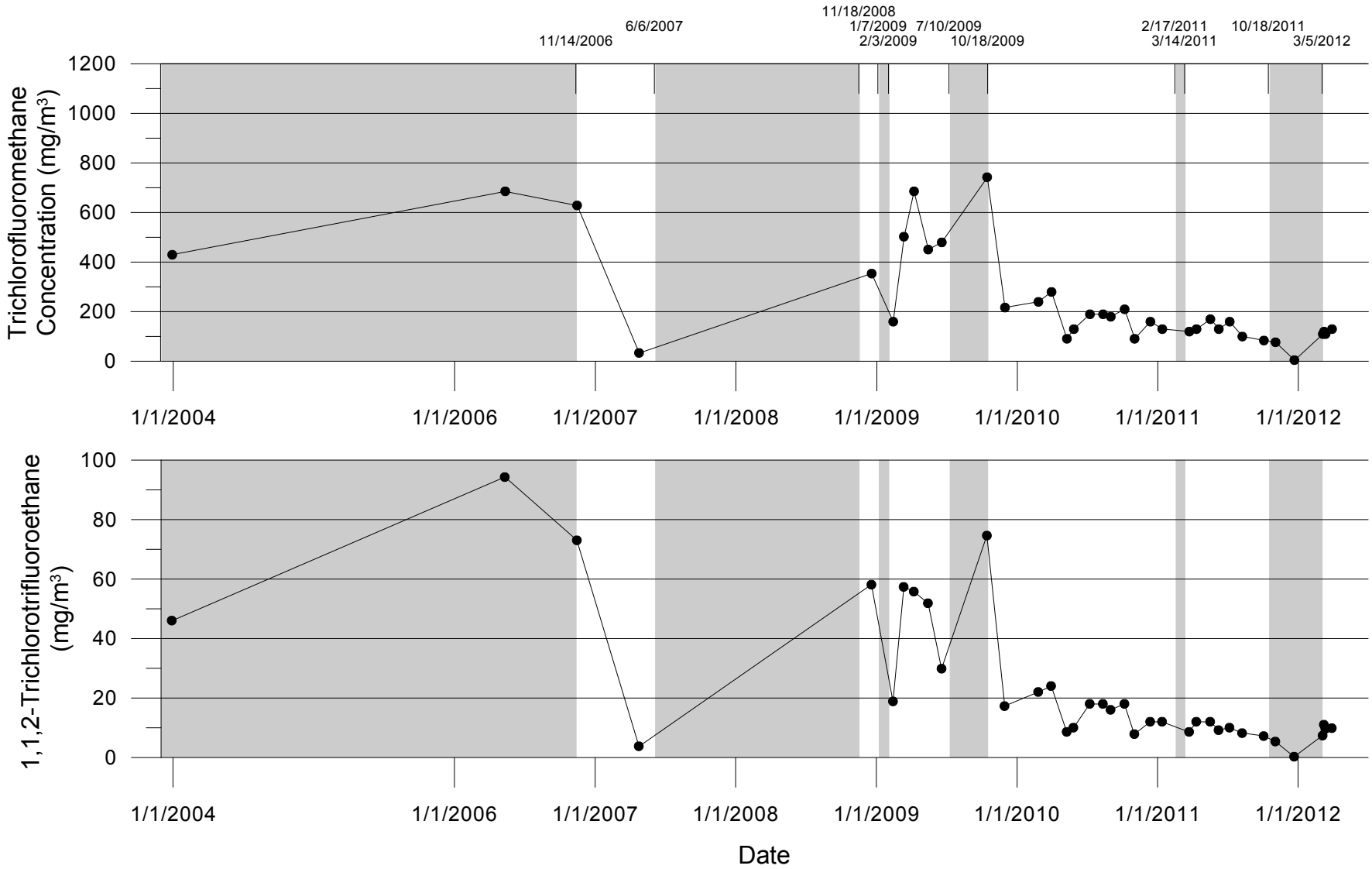
amec

SGS-WELL PCE AND TCE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6g



LEGEND

● Constituent concentration is above the reporting limit.

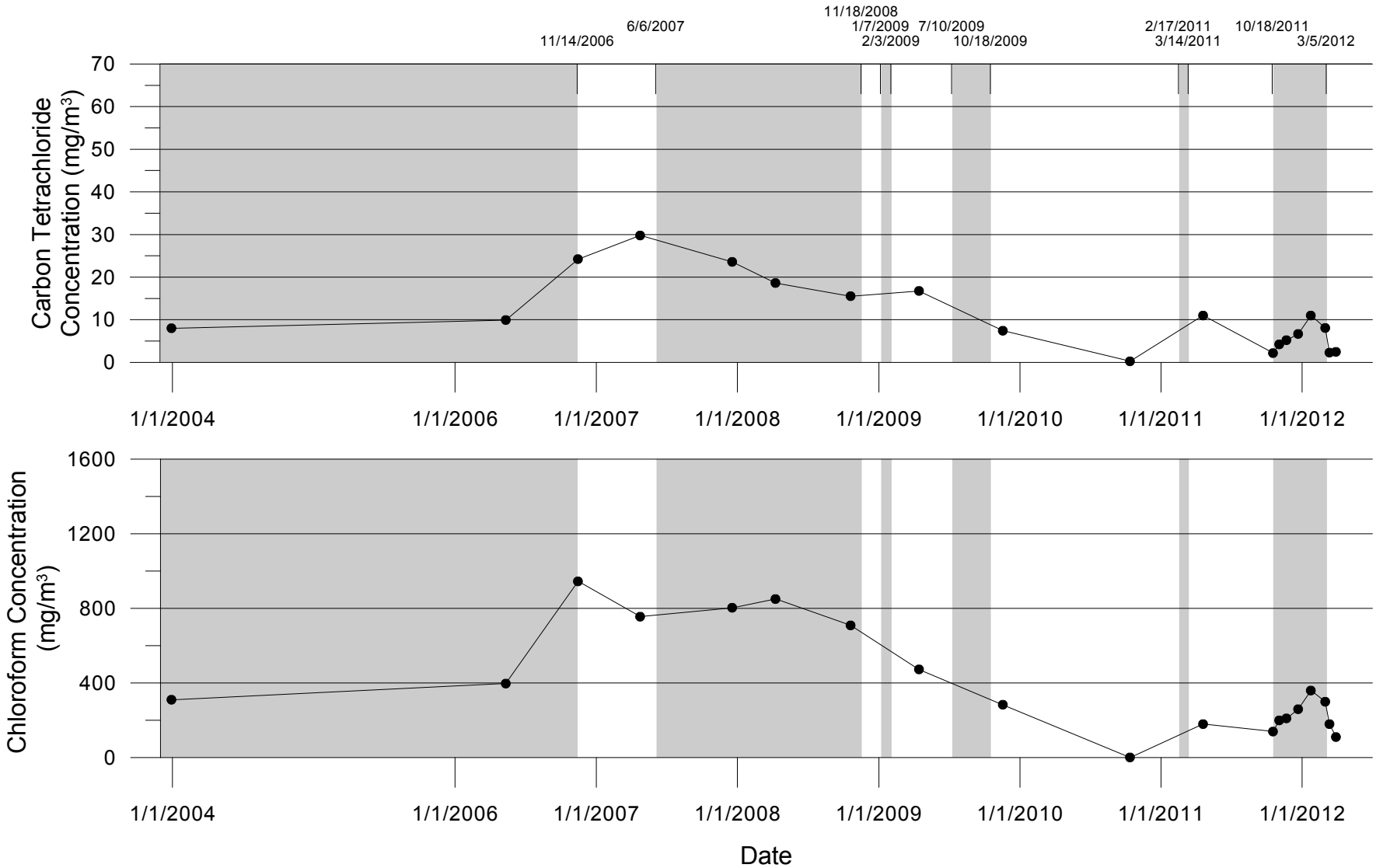
Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on 3/5/12 and 3/8/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
mg = milligrams
m = meter

amec	SGS-WELL TRICHLOROFLUOROMETHANE AND 1,1,2-TRICHLOROTRIFLUOROETHANE CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6h

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



LEGEND

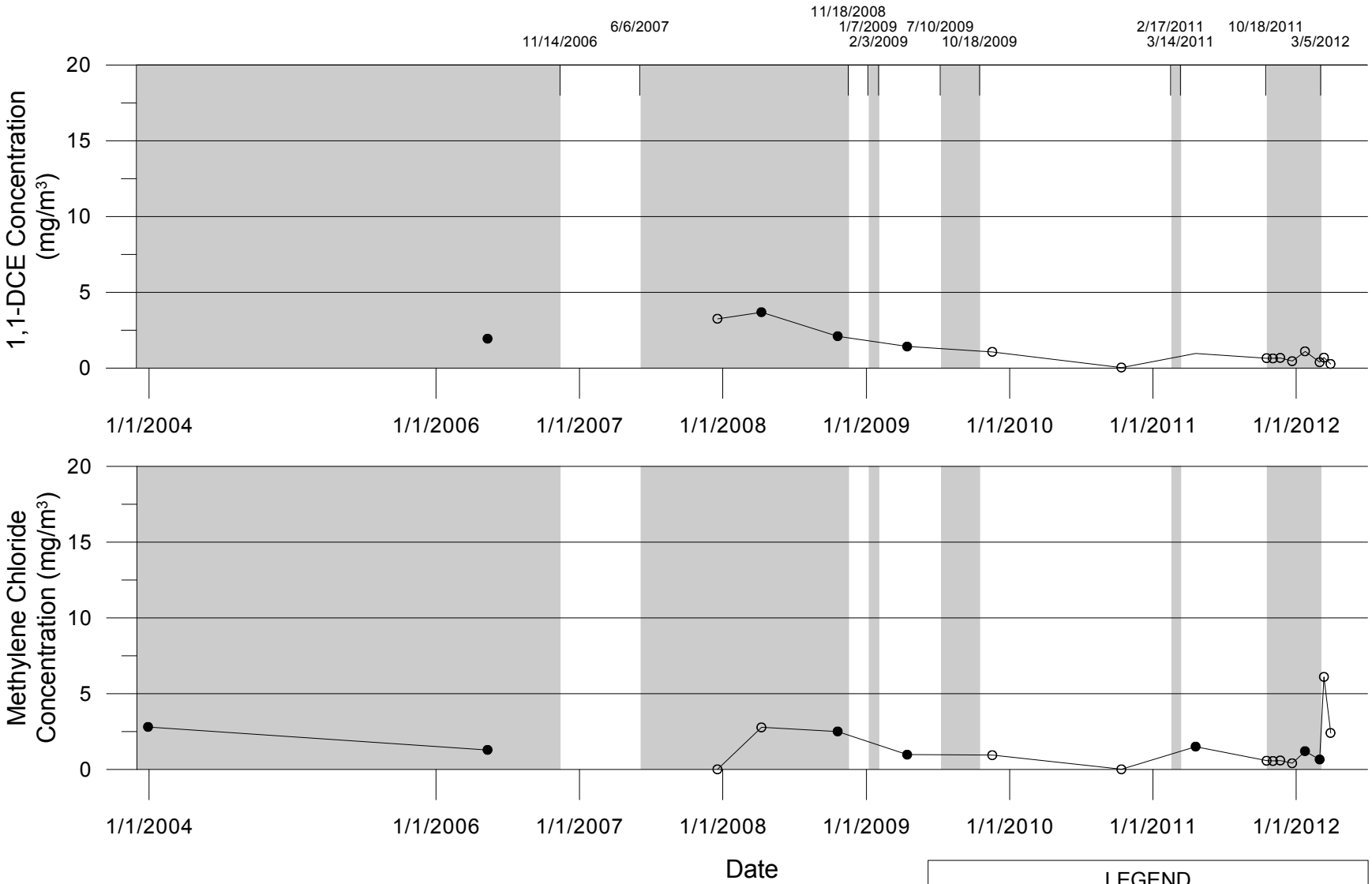
● Consituent value is above the reporting limit.

Soil vapor extraction system was nonoperational.

Abbreviations:
mg = milligrams
m = meter

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec	SGD-SP CARBON TETRACHLORIDE AND CHLOROFORM CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6i



LEGEND

- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) A discontinuous line occurs where the constituent concentratioon was nondetect and the reporting limit was not provided.

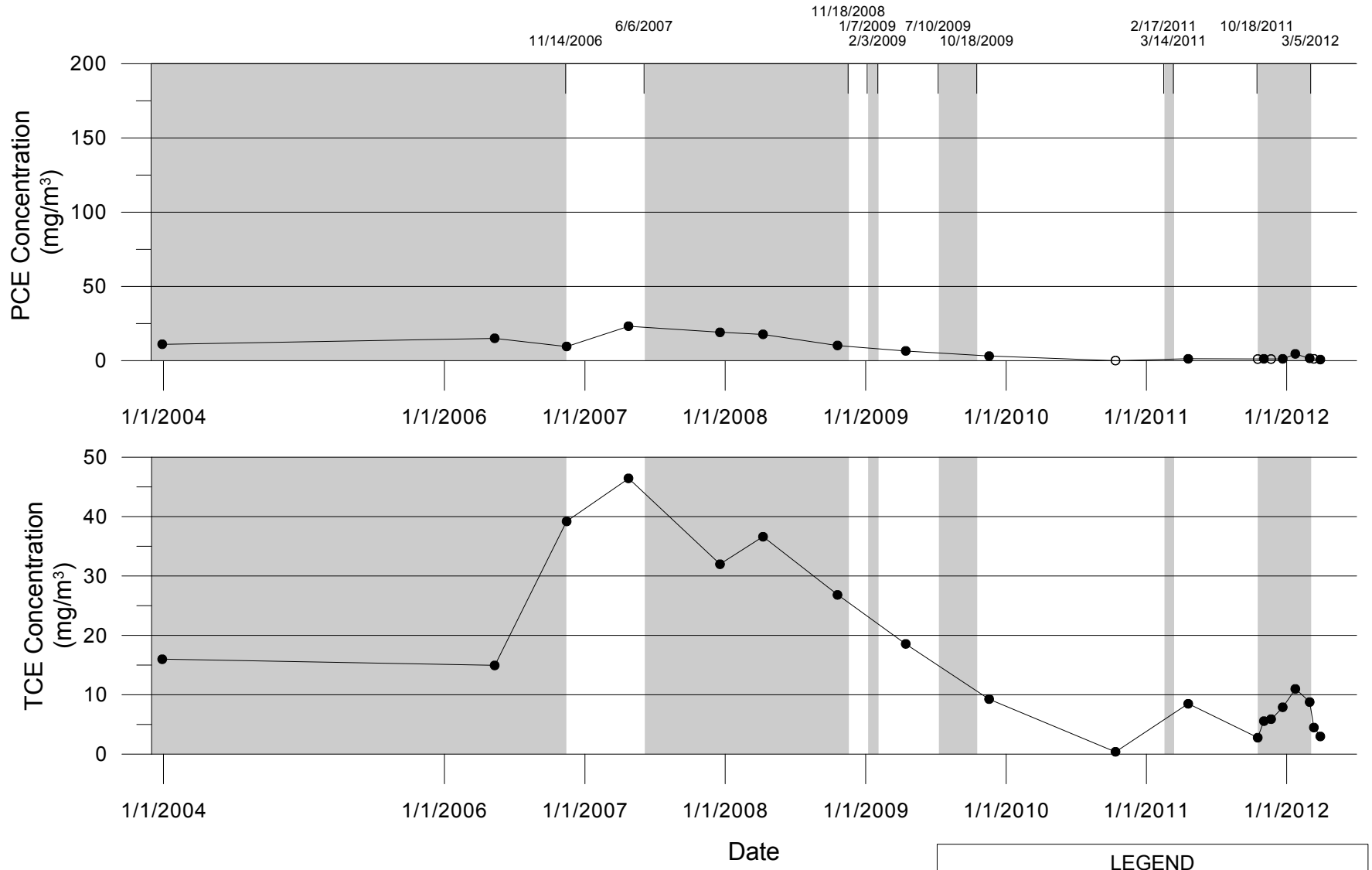
Abbreviations:
1,1-DCE = 1,1 Dichloroethene
mg = milligrams
m = meter

amec

SGD-SP 1,1-DCE AND METHYLENE CHLORIDE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6j

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



LEGEND

- ● Consitituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

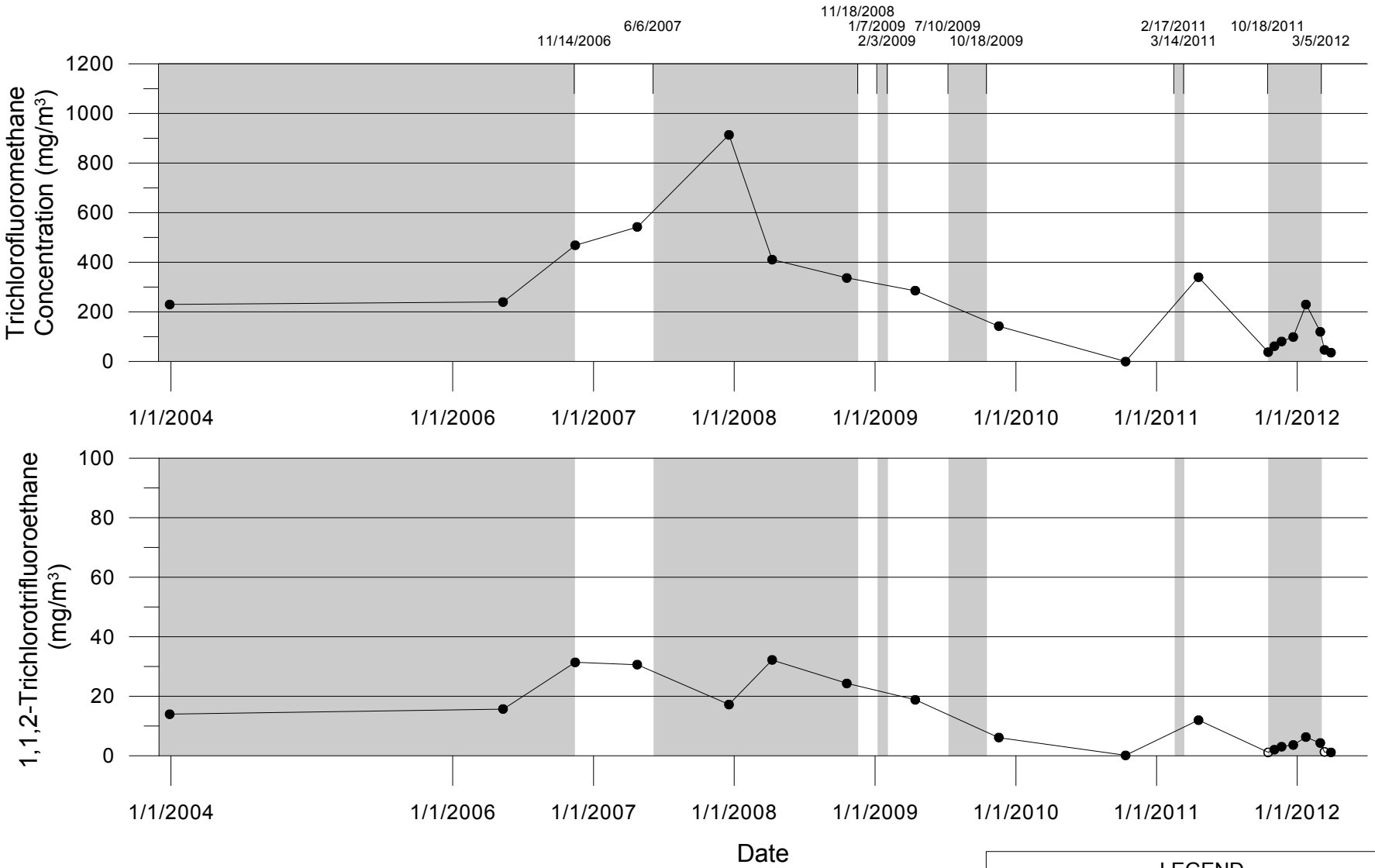
Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
mg = milligrams
m = meter

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec

SGD-SP PCE AND TCE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6k



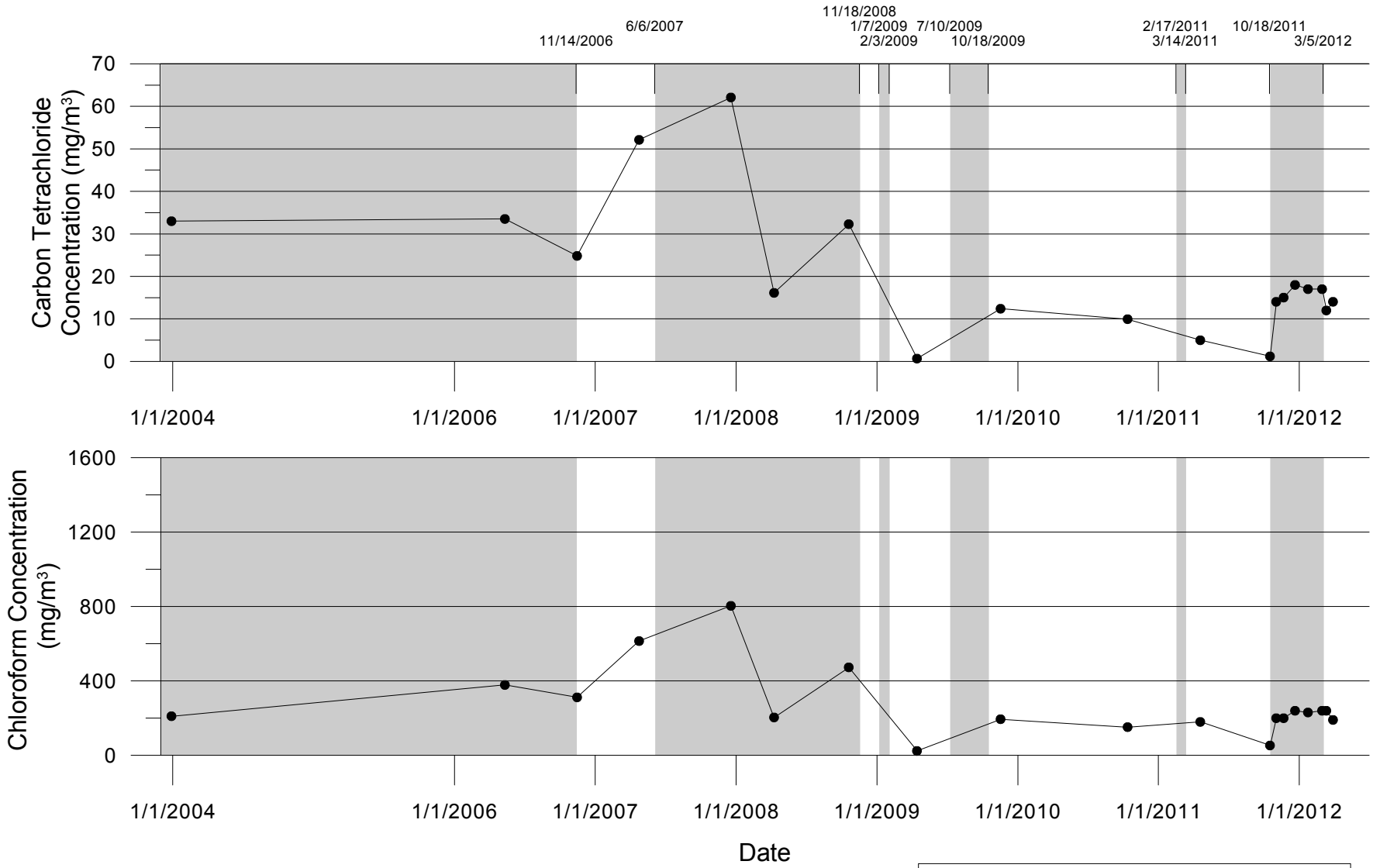
LEGEND

- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

Abbreviations:
mg = milligrams
m = meter

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

amec	SGD-SP TRICHLOROFLUOROMETHANE AND 1,1,2-TRICHLOROTRIFLUOROETHANE CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6I



LEGEND

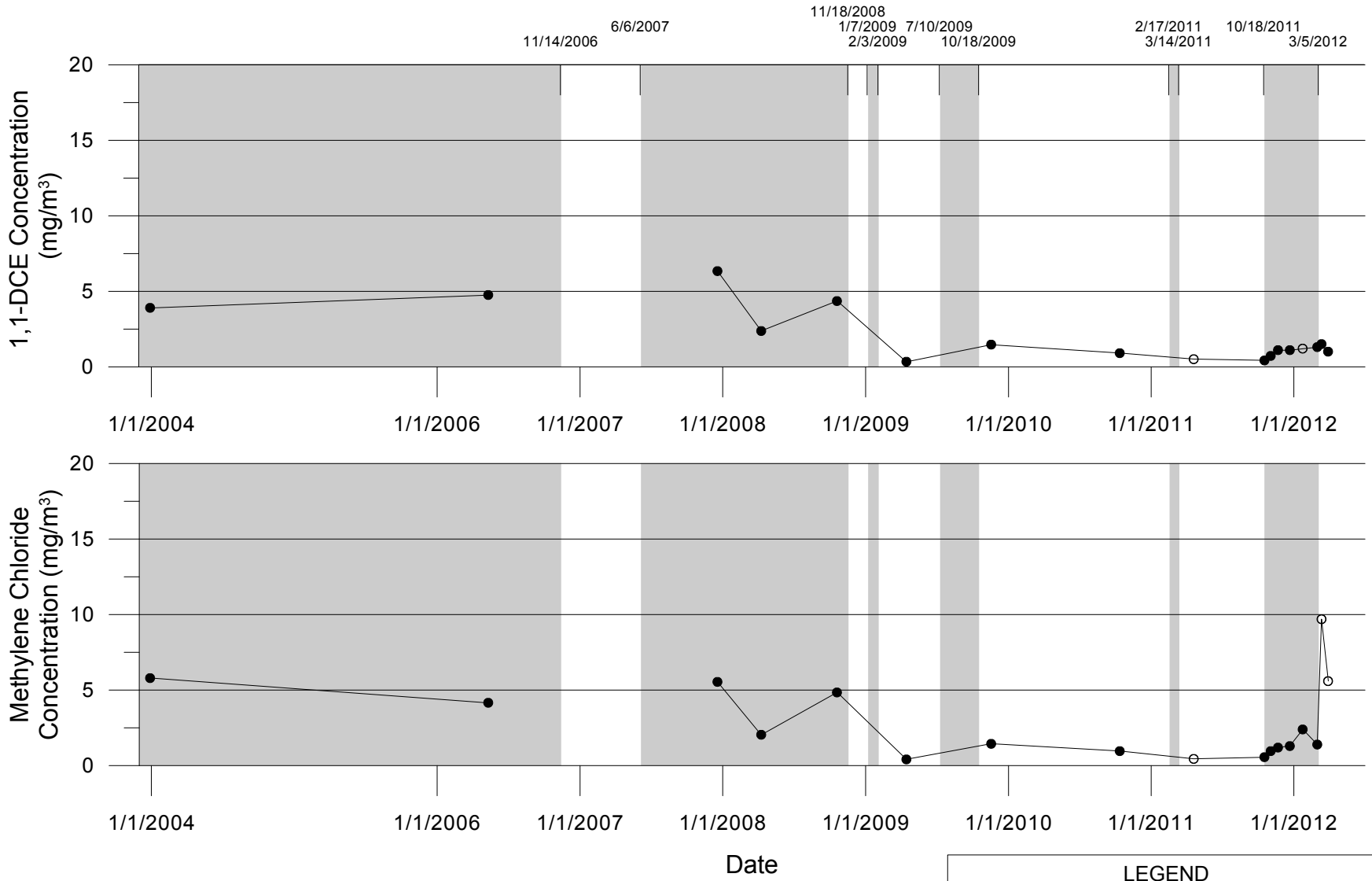
- ● Consituent value is above the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on 11/3/11, 11/22/11, 12/22/11, 1/24/12, 3/12/12, and 3/29/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
mg = milligrams
m = meter

amec	SGD-MP CARBON TETRACHLORIDE AND CHLOROFORM CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6m

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Note:
1.) For field duplicates collected on 11/3/11, 11/22/11, 12/22/11, 1/24/12, 3/12/12, and 3/29/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.
2.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
1,1-DCE = 1,1 Dichloroethene
mg = milligrams
m = meter

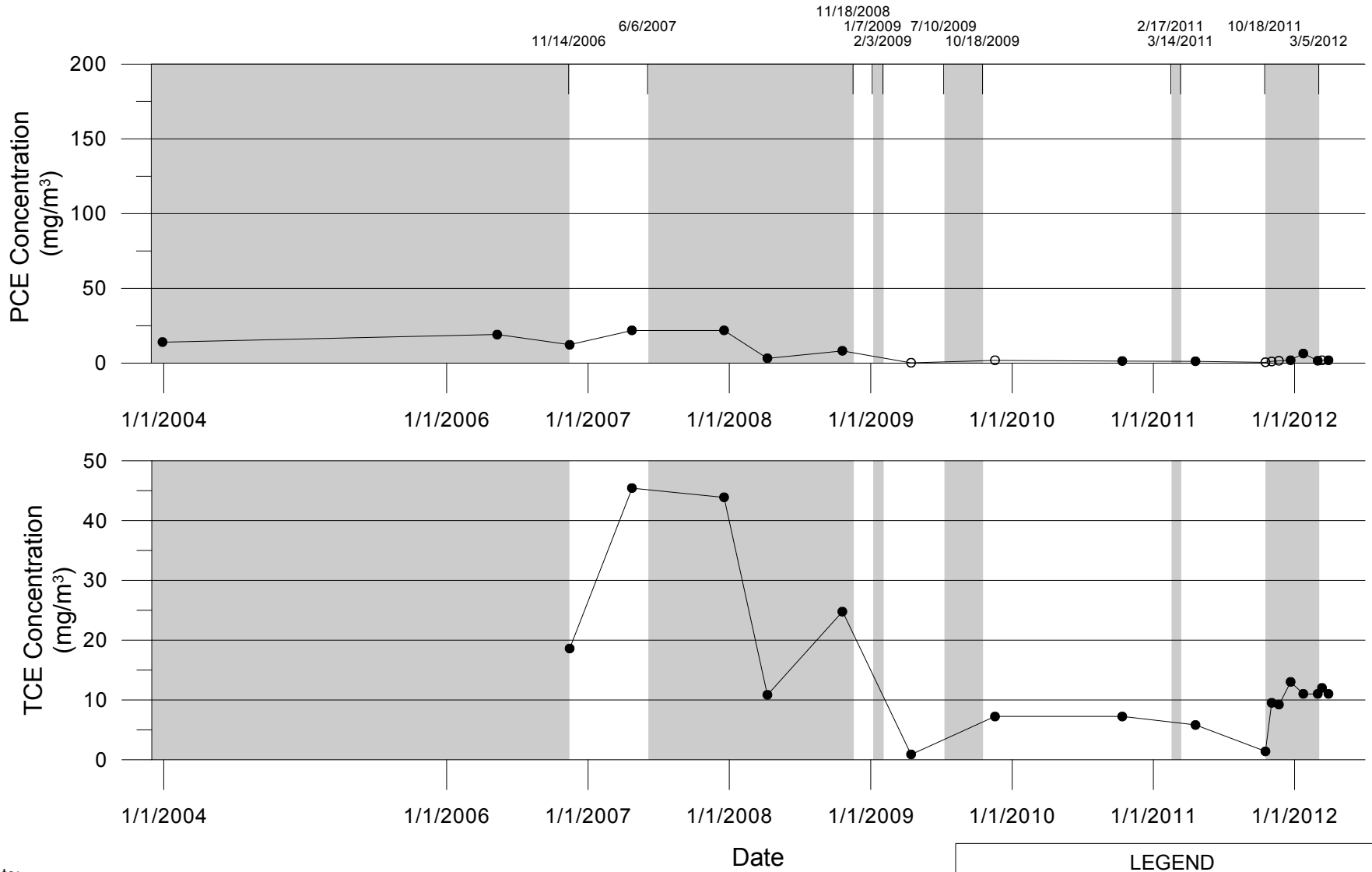
LEGEND
- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

amec

SGD-MP 1,1-DCE AND METHYLENE CHLORIDE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6n

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Note:
1.) For field duplicates collected on 11/3/11, 11/22/11, 12/22/11, 1/24/12, and 3/12/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.
2.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
mg = milligrams
m = meter

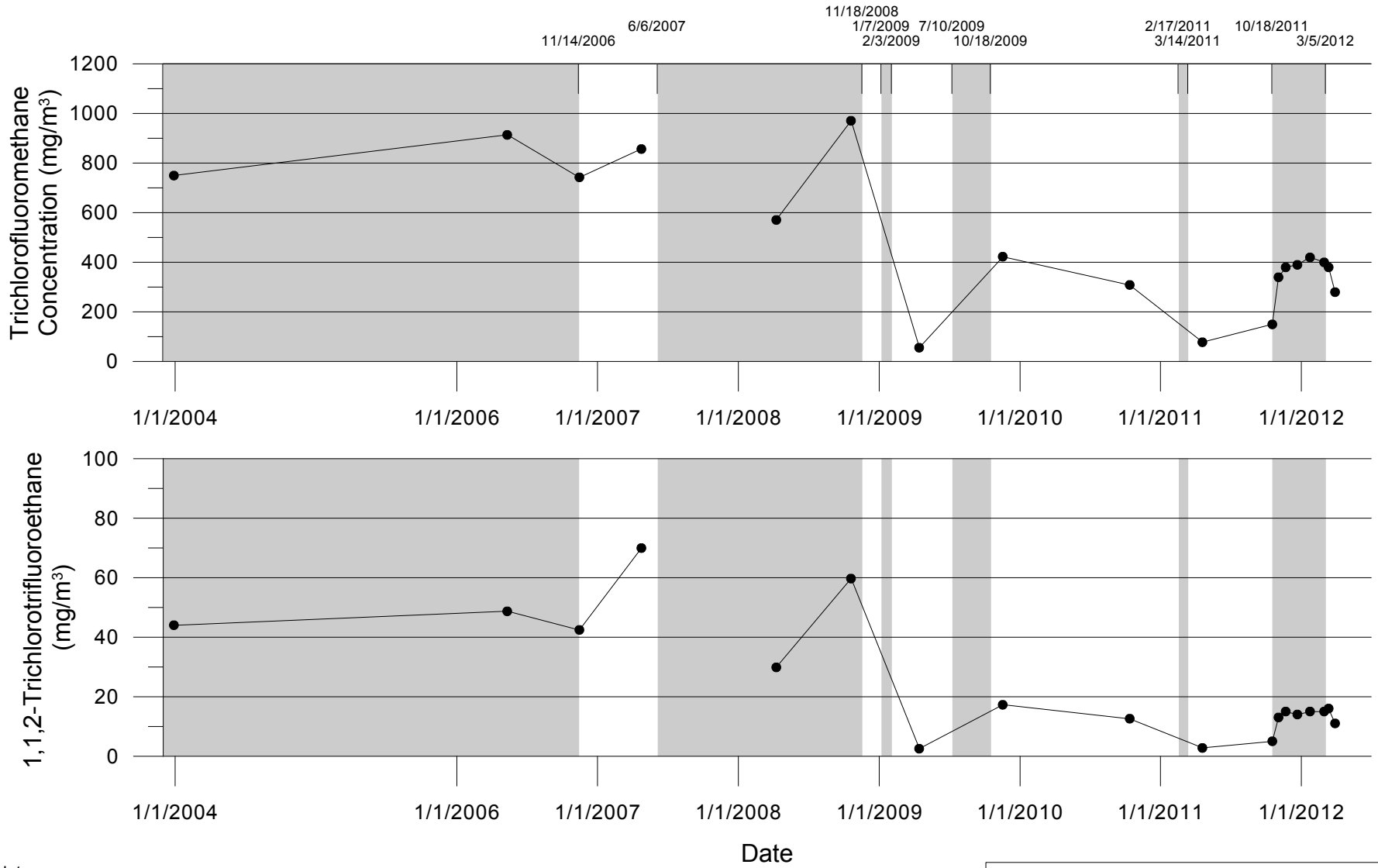
LEGEND
- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was not operational.

amec

SGD-MP PCE AND TCE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6o

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Note:
1.) For field duplicates collected on 11/3/11, 11/22/11, 12/22/11, 1/24/12, and 3/29/12, concentrations from the original and duplicate sample were compared and the higher value is plotted.
2.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
mg = milligrams
m = meter

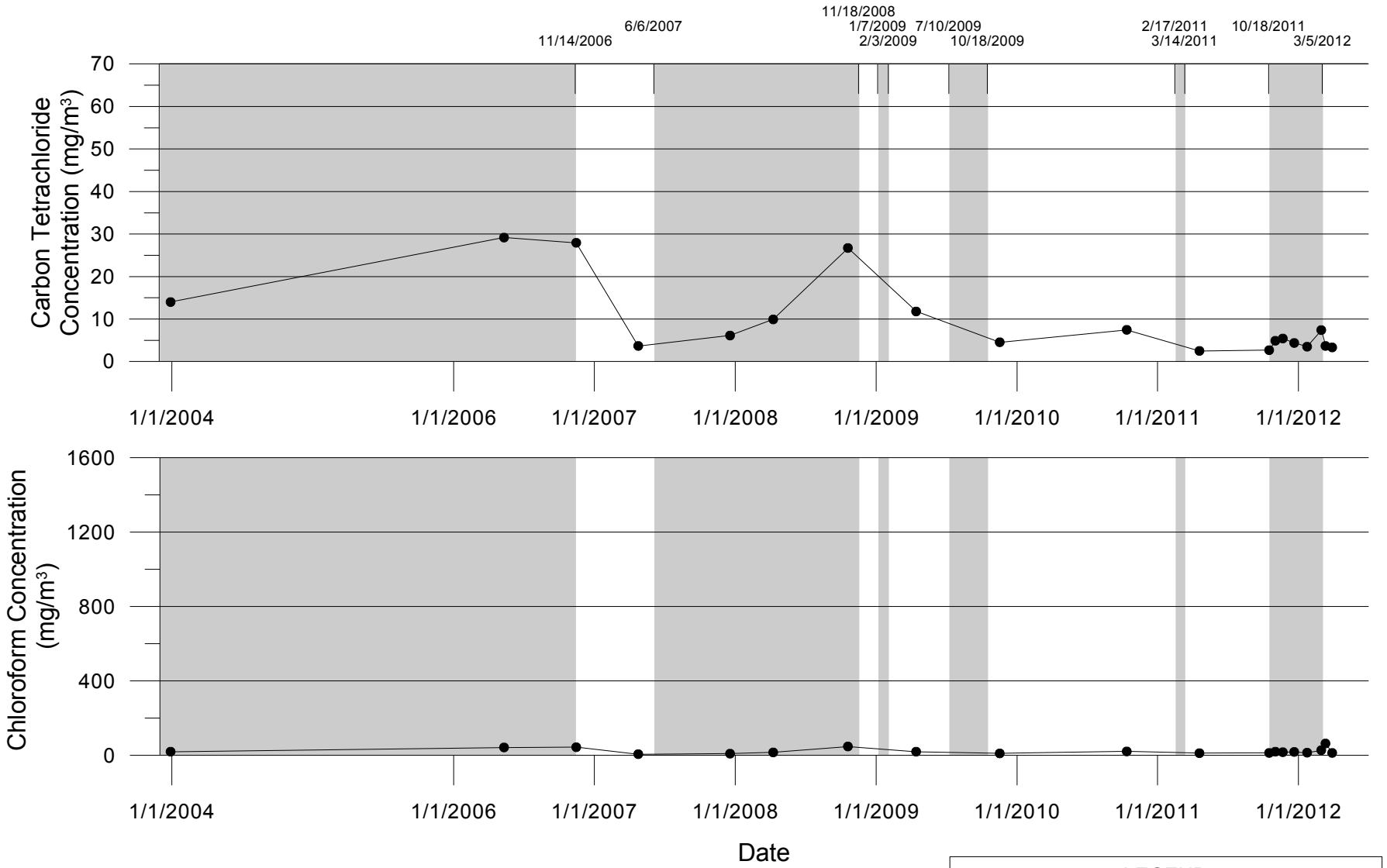
LEGEND
● Constituent value is above the reporting limit.
Soil vapor extraction system was nonoperational.

amec

SGD-MP TRICHLOROFLUOROMETHANE AND
1,1,2-TRICHLOROTRIFLUOROETHANE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6p

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



LEGEND

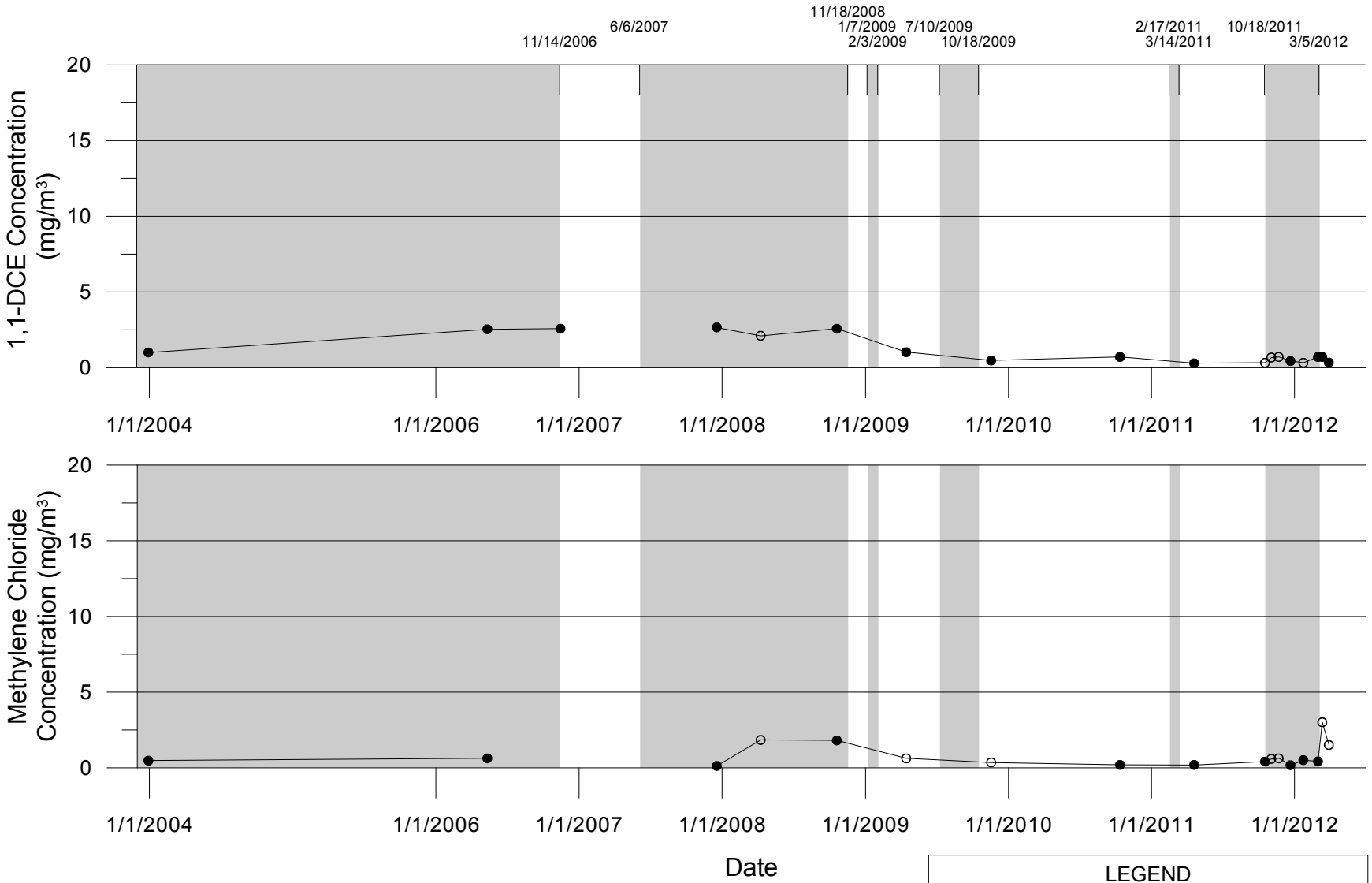
- ● Consituent value is above the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on April 20, 2011, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
mg = milligrams
m = meter

amec	SGD-DP CARBON TETRACHLORIDE AND CHLOROFORM CONCENTRATION TRENDS Page-Trowbridge Ranch Landfill Pinal County, Arizona	Prepared By: DO	Project No. 1420112039
		4/18/12	Figure No. 6q

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



LEGEND

- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

Note:
1.) For field duplicates collected on April 20, 2011, concentrations from the original and duplicate sample were compared and the higher value is plotted.

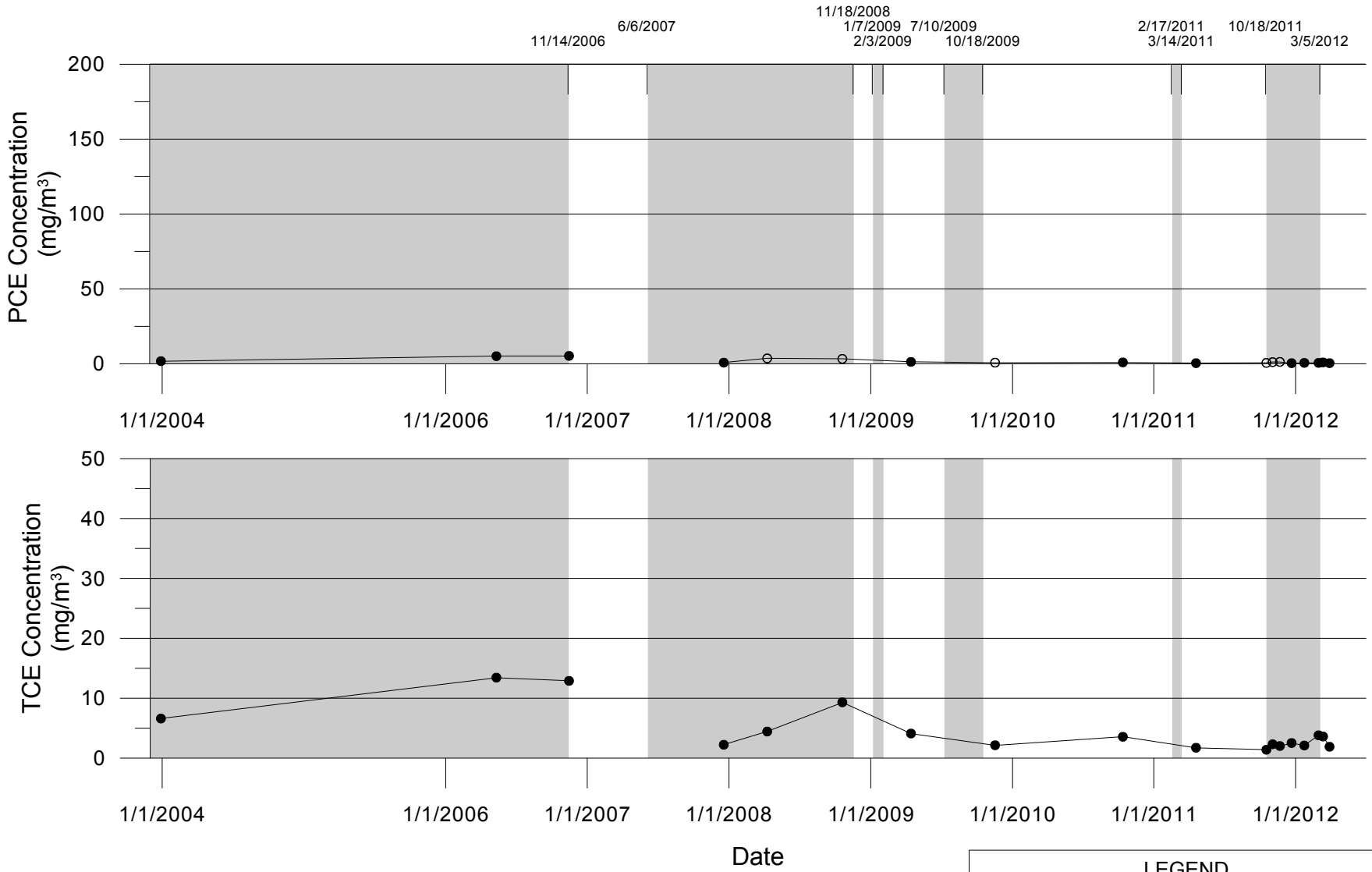
Abbreviations:
1,1-DCE = 1,1 Dichloroethene
mg = milligrams
m = meter

amec

SGD-DP 1,1-DCE AND METHYLENE CHLORIDE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6r

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Note:
1.) For field duplicates collected on April 20, 2011, concentrations from the original and duplicate sample were compared and the higher value is plotted.
2.) A discontinuous line occurs where the constituent concentration was nondetect and the reporting limit was not provided.

Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
mg = milligrams
m = meter

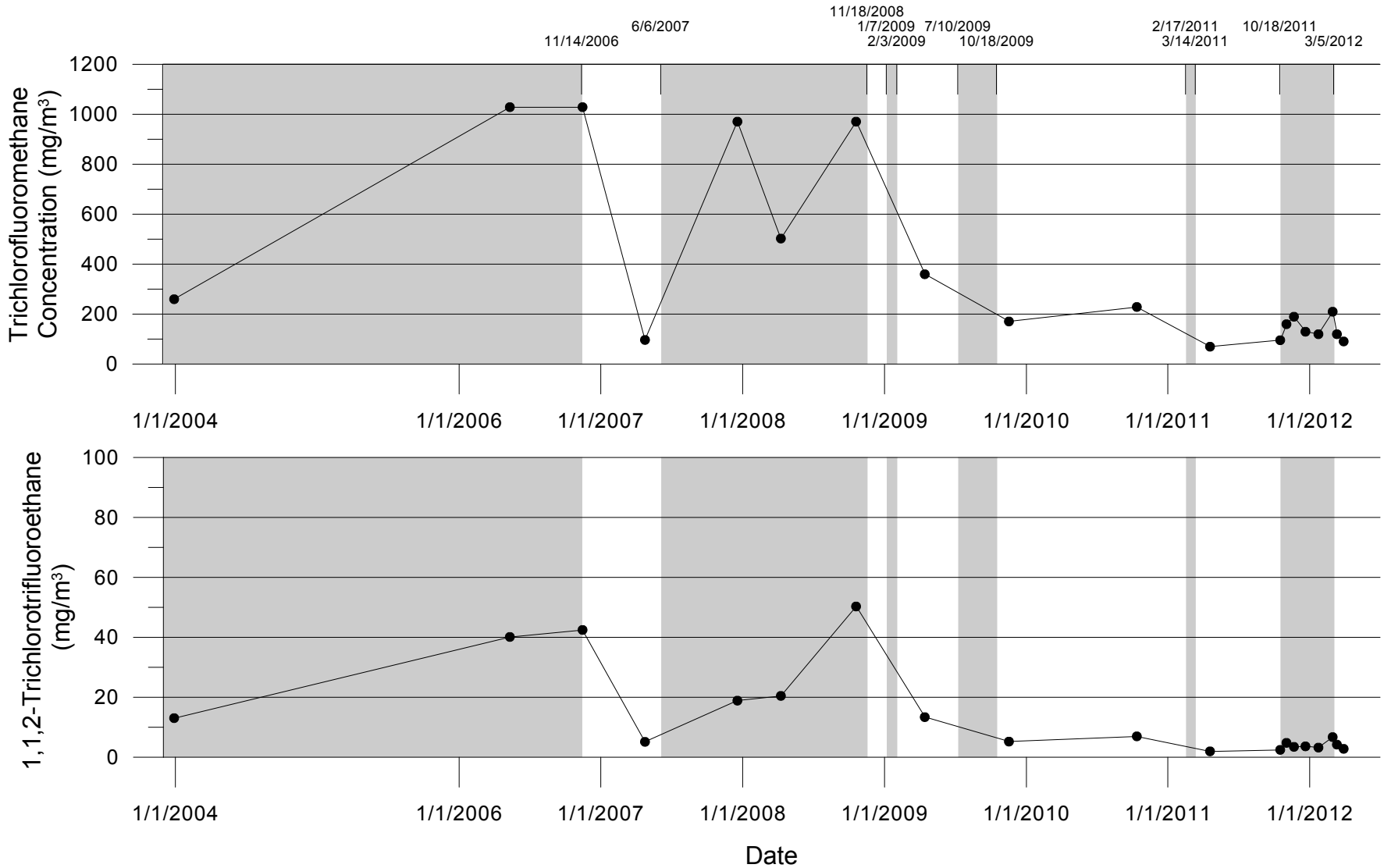
LEGEND
- ● Constituent value is above the reporting limit.
- ○ Non-detect is plotted as the reporting limit.
- Soil vapor extraction system was nonoperational.

amec

SGD-DP PCE AND TCE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6s

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf



Note:
1.) For field duplicates collected on April 20, 2011, concentrations from the original and duplicate sample were compared and the higher value is plotted.

Abbreviations:
mg = milligrams
m = meter

LEGEND
● Constituent value is above the reporting limit.
Soil vapor extraction system was nonoperational.

amec

SGD-DP TRICHLOROFLUOROMETHANE AND
1,1,2-TRICHLOROTRIFLUOROETHANE CONCENTRATION TRENDS
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Prepared By: DO	Project No. 1420112039
4/18/12	Figure No. 6t

P:\A00439 - PTRL Rebound Study\4000 Data Analysis\Grapher\Concentration Trends.grf

TABLE G-1

GROUNDWATER MONITORING WELL CONSTRUCTION SUMMARY

Table 1. Groundwater Monitoring Well Construction Summary
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Well ID	Completion Date	Northing	Easting	Total Depth Drilled/Cased (ft bgs)	Casing Material	Casing Diameter for Screened Interval (in)	Screend Interval (ft bgs)	Measuring Point Elevation (ft amsl)
MW-1	9/26/1984	586359.08	1014625.54	842/840	steel	4.125	772 - 840 [6]	3640.91
MW-2	1/12/1985	585936.26	1013980.26	800/800	steel	4.125	632 - 800 [7]	3629.73
MW-3	1/18/1985	586332.77	1014143.73	800/800	steel	4.125	632 - 800 [7]	3632.45
MW-4	3/8/1985	585842.57	1014583.06	800/800	steel	4.125	632 - 800 [7]	3631.96
MW-5	9/24/1990	586409.13	1014625.05	755/750	steel	6	640 - 740 [8]	3642.28

Notes:

1. Source of survey data: Urban Engineering, Inc., 2/28/01 (reproduced from HGC, 2003).
2. Source of data for MW-1 through MW-4: EMA, 1985.
3. Source of data for MW-5: EEC, 1991.
4. Well MW-1 was replaced by well MW-5 in 1990.
5. Measuring point is the top of sounder tube.
6. Perforations are 3-inch by 0.125-inch vertical machine cut slots, 24 slots per foot.
7. Perforations are 3-inch by 0.100-inch vertical machine cut slots, 12 to 24 slots per foot.
8. Perforations not specified in report.

Abbreviations:
ft = feet
bgs = below ground surface
amsl = above mean sea level

TABLE G-2

GROUNDWATER ELEVATIONS

Table 2. Groundwater Elevations (revised December 7, 2011)
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

	MW-2			MW-3		MW-4		MW-5		
MP Elevation (ft amsl)	3629.73		Note	3632.45		3631.96		3642.28		Note
Date	DTW (ft bgs)[1]	WL (ft amsl)		DTW (ft bgs)[1]	WL (ft amsl)	DTW (ft bgs)[1]	WL (ft amsl)	DTW (ft bgs)[1]	WL (ft amsl)	
1/31/2001	642.70	2987.03		645.30	2987.15	644.81	2987.15	655.32	2986.96	
10/10/2001	642.71	2987.02		645.57	2986.88	644.89	2987.07	654.75	2987.53	
3/27/2002	642.42	2987.31		645.44	2987.01	644.92	2987.04	655.08	2987.20	
10/23/2002	642.34	2987.39		645.48	2986.97	645.23	2986.73	654.96	2987.32	
4/23/2003	642.38	2987.35		645.27	2987.18	645.07	2986.89	664.74	2977.54	2
10/22/2003	642.79	2986.94		645.83	2986.62	645.57	2986.39	662.23	2980.05	2
4/21/2004	642.55	2987.18		645.60	2986.85	645.31	2986.65	664.02	2978.26	2
5/5/2004	642.63	2987.10		645.90	2986.55	645.63	2986.33	655.49	2986.79	
10/13/2004	642.75	2986.98		644.92	2987.53	645.71	2986.25	655.62	2986.66	
4/13/2005	643.47	2986.26		646.08	2986.37	645.81	2986.15	656.67	2985.61	
10/12/2005	644.50	2985.23		647.37	2985.08	647.33	2984.63	657.61	2984.67	
4/12/2006	645.33	2984.40		648.20	2984.25	647.66	2984.30	657.61	2984.67	
10/11/2006	NM			649.16	2983.29	648.96	2983.00	658.00	2984.28	
11/7/2006	646.49	2983.24		NM		NM		652.89	2989.39	2
4/11/2007	646.02	2983.71		649.11	2983.34	648.99	2982.97	658.37	2983.91	
10/24/2007	646.78	2982.95		649.85	2982.60	649.21	2982.75	658.56	2983.72	
4/9/2008	646.79	2982.94		649.29	2983.16	649.18	2982.78	658.67	2983.61	
10/22/2008	647.48	2982.25		649.87	2982.58	649.69	2982.27	659.32	2982.96	
4/8/2009	647.47	2982.26		649.97	2982.48	649.08	2982.88	659.70	2982.58	
10/14/2009	647.97	2981.76		650.61	2981.84	650.47	2981.49	659.88	2982.40	
4/14/2010	574.94	3054.79	2	650.57	2981.88	650.35	2981.61	659.88	2982.40	
10/13/2010	648.95	2980.78		650.36	2982.09	651.28	2980.68	660.74	2981.54	
4/20/2011	649.19	2980.54		651.62	2980.83	651.59	2980.37	661.28	2981.00	
10/18/2011	649.79	2979.94		652.38	2980.07	652.10	2979.86	661.67	2980.61	

Notes:
1. Depth to water measurements collected by University of Arizona.
2. Anormalous measurement.

Abbreviations:
MP = measuring point
DTW = depth to water
WL = water level
ft = feet
bgs = below ground surface
amsl = above mean sea level
NM = not measured

TABLE G-3

VAPOR WELL CONSTRUCTION SUMMARY

Table 3. Soil Vapor Well Construction Summary
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Well ID	**Completion Date**	**Northing**	**Easting**	**Total Depth Drilled** (ft bgs)	**Casing Diameter and Material**	**Screen**	**Screend Interval** (ft bgs)	**Steel Casing Elevation** (ft amsl)
SGS-SP	12/5/2003	12976.08	10378.00	255	0.5-inch PVC	0.02-inch mill-slotted	75 - 80	3633.77
SGS-Well	12/5/2003	12976.08	10378.00	255	4-inch PVC	0.08-inch mill-slotted	100 - 220	3633.77
SGD-SP	12/9/2003	12934.99	10175.80	605	0.5-inch PVC	0.02-inch mill-slotted	100 - 120	3629.69
SGD-MP	12/9/2003	12934.99	10175.80	605	0.5-inch PVC	0.02-inch mill-slotted	195 - 215	3629.69
SGD-Well	12/9/2003	12934.99	10175.80	605	2-inch PVC	0.08-inch mill-slotted	480 - 540 560 - 600	3629.69
SGD-DP	12/13/2003	12934.75	10156.28	355	0.5-inch PVC	0.02-inch mill-slotted	330 - 350	3629.14

Notes:
1. Source of data: HGC, 2004
2. Survey information is for steel casing at each borehole.

Abbreviations:
ft = feet
bgs = below ground surface
amsl = above mean sea level

TABLE G-4

CLASSES AND NAMES OF PESTICIDES

Table 4. Classes and Names of Pesticides in the Landfill
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Chemical Class	Pesticide (and Synonyms)
Carbamates	Advantage (Marshal, Carbosulfan) Baygon 2% (Propoxur) Carbyne Furloe 124-20G (Chlorpropham) Temik (Aldicarb) Zectran 2E (Mexacarbate)
Carbamate Herbicides	Betanal (Phenmedipham)
Chlorinated Hydrocarbons (DDT and its analogs)	DDT Kelthan. EC (Dicolol) Methoxy·Chlor 2EC IDiphenyl chloride)
Chlorinated Hydrocarbon Fumigants	Fumazone 86 (Dibromochloropropane)
Chlorinated Hydrocarbon Herbicides	Dowpon (Dalapan; 2,2-dichloropropionic acid)
Chloroalkyl Thio Fungicides	Diflotan (Dilolatan, Captafol)
Chlorophenoxy Herbicides	Weedar 64 (2,4·D)
Dinitroaniline Herbicides	Prowl
Dinitrophenols	Sinox (Dinoseb)
Dithiocarbamates	Morestan
Organo-Phosphorus Insecticides	Azodrin (Monocrotophos) Bidrin (Dicrotophos) Cygon (Dimethoate) Di-Syston (Disulfoton) Diazinon Dibrom 8 Emulsion (Naled) Dipterex (Trichlorfon) Dursban (Chlorpyrifos) Dyfonate (Fonofos) Dylox (Trichlorfon) Guthion 25 (Azinphos·methyl) Imidan 1-E (Phosmet) Kor!an (Ronnel) Malathion Meta-Systox R {Oxydemeton-methyll Parathion Paratox 3G (Methyl parathion) Saralex (Diazinon) Supracide (Methidathion) Thimet 600 (Phorale) Vaponite (DDVP, Dichlorvos)

Table 4. Classes and Names of Pesticides in the Landfill (Continued)
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Chemical Class	Pesticide (and Synonyms)
Pyrethrums	Pounce (Permethrinl
Quaternary Nitrogen Compounds	Paraquat
Rodenticide	Brodifacoum
Thiocarbamate Herbicides	Avadex Eptam (EPTC) Vernam 6E (Vernolate)
Triazines and Triazoles	Pramital 25E Sencor (Metribuzin, Triazinone)
Mixtures	Alta-Tox (Diazinon + Methoxychlor) Galecron 4EC (Chlordimeform + Methyl Parathion) Torbidan 28 (Toxaphene + Methyl Parathion)
Miscellaneous	Acarol 2E (Acaral; Isopropyl 4,4'-dibromobenzilatel Annex (Butralin; 4-(1, 1-dimethylethyl)-N-(1-methylpropyl)-2,6-dinitrobenzenamine) Baam EC (Amitraz; triazapentadiene) Balan L.C. (Benefin; N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dinitro-p-toluidine) Cobex (N_4,N_4-diethyl-a,a,a-trifluoro-3,5-dinitroto!uene-2,4-diamine) Dimilin 25W (Difluobenzuron; substituted benzoylurea) Surflan (3, 5-dinitro-$N_{4,}$ N_4-dipropylsulfanilamide) Teremac Pesticide Toxaphene (chlorinated camphene)

Note:
1. Reproduced from UA, 1997.

TABLE G-5

PESTICIDE PROPERTIES

Table 5. Pesticide Properties
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Pesticide	pK_A	K_{SP}	VP (mmHgx 10^{-6})	K_{OC}	T-1/2 (days)
Carbamates					
Advantage		0.3	0.3	2000	2
Baygon		2000	0.02	30	60
Furloe		89	10	400	30
Temik		6000	200	20	30
Betanal		4.7	<0.001	3000	30
Chlorinated Hydrocarbon					
Methoxychlor		0.10	<1	10^5	120
Toxaphene		0.04	12	10^5	70
Acidic Herbicides					
Dowpon	1.84	5 x 10^5	<10	1	20
Weedar 64	3.0	890 pH 6	8	20 pH 6	10
Hydroxy Acid Herbicides					
Sinox	4.5	52 pH 7	20	63 pH7	20
Quarternary N					
Paraquat	11	70%	0.01	106	500
Basic Pesticides					
Sencor	1	1220	10	60	20
Organophosphate					
Azodrin		10^6	160	1	30
Bidrin		10^6	140	75	28
Cygon		3.2 x 10^4	8.25	20	7
Di-Syston		25	370	600	30
Diazinon		60	60	1000	40
Dibrom		2000	1960	200	1
Dursban		0.4	18.7	6000	30
Guthion		29	16	1000	30
Malathion		145	20	1800	2
Parathion		24	92	5000	14
Supracide		240	2.5	400	7
Thimet		50	1900	1000	7
Thiocarbamates					
Eptam		375	32250	200	7
Vernam		108	10425	260	7
Other					
Pounce		0.2	<0.001	10^5	13
Baam EC		1.0	0.9	1000	2
Balan		0.10	78	10^4	40
Dimilin		0.08	0.001	10^4	10

Note:
1. Reproduced from UA, 1997.

TABLE G-6a

BACKGROUND GROUNDWATER QUALITY

Table 6a. Background Groundwater Quality
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Parameter	Lower Range Indicators	Upper Range Indicators	Alert Levels
MW-2			
pH (unitless)	6.491	7.699	-
Conductivity (µmhos)	220.097	339.903	-
Temperature (°C)	26.633	31.767	-
Chloride (Cl^-)	-	-	9.045
Sulfate (SO_4^{2-})	-	-	7.954
Manganese (Mn)	-	-	6.8
Sodium (Na)	-	-	47
MW-3			
pH (unitless)	6.690	8.070	-
Conductivity (µmhos)	225.761	334.239	-
Temperature (°C)	26.630	33.340	-
Chloride (Cl^-)	-	-	9.135
Sulfate (SO_4^{2-})	-	-	7.757
Manganese (Mn)	-	-	7.72
Sodium (Na)	-	-	52
MW-4			
pH (unitless)	6.681	8.069	-
Conductivity (µmhos)	207.711	322.289	-
Temperature (°C)	26.635	33.565	-
Chloride (Cl^-)	-	-	9.65
Sulfate (SO_4^{2-})	-	-	6.686
Manganese (Mn)	-	-	0.412
Sodium (Na)	-	-	45
MW-5			
pH (unitless)	6.637	7.633	-
Conductivity (µmhos)	244.371	345.629	-
Temperature (°C)	25.250	32.250	-
Chloride (Cl^-)	-	-	8.992
Sulfate (SO_4^{2-})	-	-	6.339
Manganese (Mn)	-	-	0.88
Sodium (Na)	-	-	54

Notes:
1. All concentrations are in unit mg/L.
2. "-" = not applicable.

TABLE G-6b-e

ALERT LEVELS FOR PROPOSED PARAMETERS

Table 6b. Alert Levels for Proposed Parameters for MW-2
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

	Number of Original Data	Number of Outliers Removed	Number of Data Used for Alert Level Calculation	Number of Non-detects	Percentage of Non-detect	Lowest Detection	Highest Detection	Statistical Method	Alert Level
Chloride (Cl^-)	41	1	40	1	3%	5	10	MLE	9.045
Sulfate (SO_4^{2-})	42	1	41	17	41%	0.0728	11	KM	7.954
Manganese (Mn)	38	1	37	0	0%	0.085	6.8	KM	6.8
Sodium (Na)	37	1	36	0	0%	15.7	47	KM	47

Notes:
1. No long-term temporal trend is apparent by visual inspection.
2. In the case of duplicate results, one value is randomly selected into the original dataset.
3. Detections of chloride, sulfate, manganese, and sodium on 9/20/1985 are orders of magnitude lower than the other data for MW-2, MW-3, and MW-4. Therefore, they were excluded from alert level calcualtion.
4. A detection of chloride at 10 mg/L on 5/6/1991 was identified as an outlier. Because there is no evidence to suggest that this is an incorrect measurement, it is retained for alert level calculation.

Abbreviations:
MLW = Maximum Likehood Estimate
KM = Kaplan-Meier

Table 6c. Alert Levels for Proposed Parameters for MW-3
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

	Number of Original Data	Number of Outliers Removed	Number of Data Used for Alert Level Calculation	Number of Non-detects	Percentage of Non-detect	Lowest Detection	Highest Detection	Statistical Method	Alert Level
Chloride (Cl^-)	41	1	40	1	3%	0.00521	10	KM	9.135
Sulfate (SO_4^{2-})	41	1	40	17	43%	0.0912	10	KM	7.757
Manganese (Mn)	36	1	35	0	0%	0.05	7.72	KM	7.72
Sodium (Na)	36	1	35	0	0%	17.1	52	KM	52

Notes:
1. No long-term temporal trend is apparent by visual inspection.
2. In the case of duplicate results, one value is randomly selected into the original dataset.
3. Detections of chloride, sulfate, manganese, and sodium on 9/20/1985 were identified as outliers. These values are orders of magnitude lower than the other data, and therefore were excluded from alert level calcualtion.
4. A detection of chloride at 0.00521 mg/L on 4/10/1985 was identified as an outlier Because there is no evidence to suggest that this is an incorrect measurements, it is retained for alert level calculation.

Abbreviations:
KM = Kaplan-Meier

Table 6d. Alert Levels for Proposed Parameters for MW-4
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

	Number of Original Data	Number of Outliers Removed	Number of Data Used for Alert Level Calculation	Number of Non-detects	Percentage of Non-detect	Lowest Detection	Highest Detection	Statistical Method	Alert Level
Chloride (Cl^-)	43	1	42	1	2%	0.00482	10	MLE	9.65
Sulfate (SO_4^{2-})	43	1	42	18	43%	0.00482	9	KM	6.686
Manganese (Mn)	38	1	37	0	0%	0.066	0.44	parametric-normal	0.412
Sodium (Na)	38	1	37	0	0%	16.3	45	KM	45

Notes:
1. No long-term temporal trend is apparent by visual inspection.
2. In the case of duplicate results, one value is randomly selected into the original dataset.
3. Detections of chloride, sulfate, manganese, and sodium on 9/20/1985 were identified as outliers. These values are orders of magnitude lower than the other data, and therefore were excluded from alert level calcualtion.

Abbreviations:
MLW = Maximum Likehood Estimate
KM = Kaplan-Meier

Table 6e. Alert Levels for Proposed Parameters for MW-5
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

	Number of Original Data	Number of Outliers Removed	Number of Data Used for Alert Level Calculation	Number of Non-detects	Percentage of Non-detect	Lowest Detection	Highest Detection	Statistical Method	Alert Level
Chloride (Cl^-)	29	0	28	1	4%	5.7	10	KM	8.992
Sulfate (SO_4^{2-})	29	0	29	13	45%	2.6	6	KM	6.339
Manganese (Mn)	28	0	28	0	0%	0.046	0.88	KM	0.88
Sodium (Na)	29	0	29	0	0%	16.6	54	KM	54

Notes:
1. No long-term temporal trend is apparent by visual inspection.
2. In the case of duplicate results, one value is randomly selected into the original dataset.
3. A detection of chloride at 10 mg/L on 5/6/1991 was identified as an outlier. Because there is no evidence to suggest that this is an incorrect measurement, it is retained for alert level calculation.

Abbreviations:
KM = Kaplan-Meier

TABLE G-7

ALERT LEVELS FOR VOCS, SVOCS, AND ORGANOCHLORINE PESTICIDES

Table 7. Alert Levels for VOCs, SVOCs, and Organochlorine Pesticides
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Concentrations shown in milligrams per liter (mg/L)

Analyte	MCL	Alert Level
Polychlorinated Biphenyls (PCBs)	0.0005	0.0004
Pesticides		
Chlordane	0.002	0.0016
Endrin	0.002	0.0016
Heptachlor	0.0004	0.00032
Heptachlor epoxide	0.0002	0.00016
Lindane	0.0002	0.00016
Methoxychlor	0.04	0.032
Toxaphene	0.003	0.0024
Semivolatile Organic Compounds		0
1,2,4-Trichlorobenzene	0.07	0.056
1,2-Dichlorobenzene	0.6	0.48
1,4-Dichlorobenzene	0.075	0.06
Benzo(a)pyrene	0.0002	0.00016
Bis(2-ethylhexyl) phthalate	0.006	0.0048
Hexachlorobenzene	0.001	0.0008
Hexachlorocyclopentadiene	0.05	0.04
Pentachlorophenol	0.001	0.0008
Volatile Organic Compounds		
1,1,1-Trichloroethane	0.2	0.16
1,1,2-Trichloroethane	0.005	0.004
1,1-Dichloroethene	0.007	0.0056
1,2-Dibromo-3-chloropropane	0.0002	0.00016
Ethylene Dibromide (EDB)	0.00005	0.00004
1,2-Dichlorobenzene	0.6	0.48
1,2-Dichloroethane	0.005	0.004
1,2-Dichloropropane	0.005	0.004
1,4-Dichlorobenzene	0.075	0.06
Benzene	0.005	0.004
Carbon tetrachloride	0.005	0.004
Chlorobenzene	0.1	0.08
cis-1,2-Dichloroethene	0.07	0.056
Ethylbenzene	0.7	0.56
Methylene chloride	0.005	0.004
Styrene	0.1	0.08
Tetrachloroethene	0.005	0.004
Toluene	1	0.8
trans-1,2-Dichloroethene	0.1	0.08
Trichloroethene	0.005	0.004
Trihalomethanes	0.08	0.064
Vinyl chloride	0.002	0.0016
Xylenes, total	10	8

Notes
1. Only chemicals that have primary MCLs are listed.
2. Primary MCLs obtained from National Primary Drinking Water Regulations (EPA 816-F-09-0004, May 2009).
3. Alert levels are calculated as 80% of MCLs.

Abbreviations
EPA = US Environmental Protection Agency
MCLs = maximum contaminant levels

TABLE G-8

PROPOSED THRESHOLDS FOR ADDITIONAL ACTIONS

Table 8. Proposed Thresholds for Additional Actions
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Compound	SGS-Well/SVE Influent	SGS-SP	SGD-SP	SGD-MP	SGD-DP	MW-2	MW-5
Carbon tetrachloride	850	450	180	130	130	6	6
Chloroform	900	480	210	140	140	12	12
1,1-Dichloroethene (1,1-DCE)	2160	1150	470	340	340	7	7
Methylene chloride	530	280	120	80	80	1	1
Tetrachloroethene (PCE)	130	70	30	20	20	4	4
Trichloroethene (TCE)	330	180	80	50	50	2	2
Trichlorofluoromethane (Freon-11)	3870	2060	860	640	640	596	596

Notes:
1. All concentrations are in mg/m^3

April 27, 2012
Revision Draft

APPENDIX G-1

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

APPENDIX G-1 (Application APPENDIX H)

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

TABLE H-1

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-1 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	11/26/1984	1/31/1985	4/10/1985	5/23/1985	6/6/1985	9/19/1985	9/19/1985 (Dup)	7/23/1986	10/29/1986	10/29/1986 (Dup)	3/5/1987	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	4/18/1990	4/18/1990 (Dup)
Conventionals																					
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	ND	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	ND	--	--	--
Chloride (Cl^-)	--	6.47	0.00606	5.44	5.88	0.00667	--	8	--	--	--	--	6.56	--	6.3	4.9	5.8	7.8	7.5	6.4	5.6
Fluoride (Fl^-)	--	0.8	0.000816	0.845	0.786	0.00082	--	--	--	--	--	--	0.8	--	--	--	--	0.81	--	--	--
Nitrate (NO_3)	--	9.24	0.00749	6.52	8.46	0.00661	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate total	--	--	--	--	--	--	--	--	--	--	--	--	1.61	--	--	--	--	1.2	--	--	--
Sulfate (SO_4)	--	5.54	0.0936	4.57	5.66	0.00471	--	1 U	--	--	--	--	3.51	--	6.4	7.4	1 U	17	1.4	1 U	1 U
VOCs[2]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
Metals/Inorganics																					
Arsenic (As)	0.002 U	0.003 U	0.000004 U	0.005 U	0.005 U	0.000003 U	--	--	--	--	--	--	0.02 U	--	--	--	--	0.01 U	--	--	--
Barium (Ba)	0.3 U	0.7 U	0.000507 U	0.085	0.49 U	0.00045 U	0.00045 U	--	--	--	--	--	0.1 U	--	--	--	--	0.1 U	--	--	--
Cadmium (Cd)	0.02 U	0.03 U	0.000022 U	0.003 U	0.003 U	0.000002 U	0.000002 U	--	--	--	--	--	0.001 U	--	--	--	--	0.001 U	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	28.3	--	--	--	--	--	--	--	--
Chromium (Cr)	0.09 U	0.08 U	0.00004 U	0.007 U	0.006	0.000015 U	0.000015 U	--	--	--	--	--	0.01 U	--	--	--	--	0.01 U	--	--	--
Copper (Cu)	0.03 U	0.04 U	0.000049 U	0.021 U	0.021 U	--	--	--	--	--	--	--	0.1 U	--	--	--	--	0.1 U	--	--	--
Iron (Fe)	--	--	--	--	--	0.00025	0.00025	0.59	--	--	0.52	--	0.2	--	--	--	--	2.86	--	--	--
Lead (Pb)	0.02 U	0.28 U	0.00023 U	0.047 U	0.047 U	0.00002 U	0.00002 U	--	--	--	--	--	0.02 U	--	--	--	--	0.01 U	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	10	--	--	--	--	--	7.7	--	--
Manganese (Mn)	--	--	--	--	--	0.00019	0.0002	0.24	--	--	0.21	--	0.16	--	0.2	0.19	0.142	0.36	--	0.37	0.35
Mercury (Hg)	0.005 U	0.005 U	0.000005 U	0.001 U	0.001 U	0.000001 U	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.0005 U	--	--	--
Nickel (Ni)	0.2 U	0.32 U	0.00023 U	0.042 U	0.023 U	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--	--	--	--
Selenium (Se)	0.001 U	0.005 U	0.000005 U	0.005 U	0.004 U	0.000005 U	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.005 U	--	--	--
Silver (Ag)	0.03 U	0.05 U	0.000063 U	0.003 U	0.014 U	0.000005 U	0.000005 U	--	--	--	--	--	0.005 U	--	--	--	--	0.001 U	--	--	--
Sodium (Na)	--	--	--	--	--	0.0371	--	--	--	--	--	--	34.7	--	31.6	32.1	28.1	39.7	30.9	31.4	31.2
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--	--	--	--
Zinc (Zn)	0.11	0.65	0.00049	0.73	0.293	--	--	--	--	--	--	--	0.15	--	--	--	--	0.57	--	--	--

TABLE H-1

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-1 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	11/26/1984	1/31/1985	4/10/1985	5/23/1985	6/6/1985	9/19/1985	9/19/1985 (Dup)	7/23/1986	10/29/1986	10/29/1986 (Dup)	3/5/1987	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	4/18/1990	4/18/1990 (Dup)
Pesticides/PCBs																					
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.001 U	0.001 U	0.001 U
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.001 U	0.001 U	0.001 U
4,4'-DDD	--	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	--	--	0.000012 U	0.006 U	--	0.00002 U	0.000011 U	0.000011 U	0.000011 U	0.0001 U	0.001 U	0.001 U	0.001 U
4,4'-DDE	--	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	--	--	0.000004 U	0.002 U	--	0.00002 U	0.000004 U	0.000004 U	0.000004 U	0.0001 U	0.001 U	0.001 U	0.001 U
4,4'-DDT	--	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	--	--	0.000012 U	0.006 U	--	0.00006 U	0.000012 U	0.000012 U	0.000012 U	0.0001 U	0.001 U	0.001 U	0.001 U
Aldrin	--	--	--	0.0001	0.00005 U	--	--	0.00005 U	--	--	0.000002 U	0.001 U	0.000005 U	0.000005 U	0.000004 U	0.000004 U	0.000004 U	0.00005 U	0.001 U	0.001 U	0.001 U
alpha-BHC	--	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	--	--	0.000002 U	0.001 U	0.000005 U	0.000005 U	0.000003 U	0.000003 U	0.000003 U	0.00005 U	0.001 U	0.001 U	0.001 U
Aroclor 1016	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.0005 U	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.0005 U	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.0005 U	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.0005 U	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.001 U	--	--	--	--	0.0005 U	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	0.001 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.001 U	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	0.001 U	--	--	--	--	0.001 U	--	0.00007 U	0.00007 U	0.00007 U	0.001 U	--	--	--
beta-BHC	--	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	--	--	0.000004 U	0.001 U	0.000005 U	0.000005 U	0.000006 U	0.000006 U	0.000006 U	0.00005 U	0.001 U	0.001 U	0.001 U
Chlordane	--	--	--	--	--	--	--	0.0005 U	--	--	0.000015 U	0.025 U	0.00002 U	0.00002 U	0.000014 U	0.000014 U	0.000014 U	0.0001 U	0.001 U	0.001 U	0.001 U
delta-BHC	--	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	--	--	0.000002 U	0.001 U	0.000005 U	0.000005 U	0.000009 U	0.000009 U	0.000009 U	0.00005 U	0.001 U	0.001 U	0.001 U
Dieldrin	--	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	--	--	0.000004 U	0.002 U	0.00002 U	0.00002 U	0.000002 U	0.000002 U	0.000002 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endosulfan I	--	--	--	--	--	--	--	0.00005 U	--	--	0.000004 U	0.002 U	0.000015 U	0.000015 U	0.000014 U	0.000014 U	0.000014 U	0.00005 U	0.001 U	0.001 U	0.001 U
Endosulfan II	--	--	--	--	--	--	--	0.0001 U	--	--	0.000012 U	0.002 U	0.00002 U	0.00002 U	0.000004 U	0.000004 U	0.000004 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endosulfan sulfate	--	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	--	--	0.00002 U	0.006 U	0.0001 U	0.00012 U	0.000066 U	0.000066 U	0.000066 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endrin	--	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	--	--	0.000015 U	0.002 U	0.00002 U	0.00002 U	0.000006 U	0.000006 U	0.000006 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endrin aldehyde	--	--	--	0.0001 U	0.0001 U	--	--	--	--	--	0.00002 U	0.006 U	0.00006 U	0.00006 U	0.000023 U	0.000023 U	0.000023 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endrin ketone	--	--	--	--	--	--	--	0.0001 U	--	--	--	--	0.0002 U	--	--	--	--	--	--	--	--
gamma-BHC	--	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	--	--	0.000002 U	0.001 U	0.000005 U	0.000005 U	0.000004 U	0.000004 U	0.000004 U	0.00005 U	0.001 U	0.001 U	0.001 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	--	0.00005 U	0.00005 U	--	--	0.00005 U	--	--	0.000002 U	0.001 U	0.000005 U	0.000005 U	0.000003 U	0.000003 U	0.000003 U	0.00005 U	0.001 U	0.001 U	0.001 U
Heptachlor epoxide	--	--	--	0.00005 U	0.00005 U	--	--	0.00005 U	--	--	0.00002 U	0.001 U	0.000015 U	0.000015 U	0.000083 U	0.000083 U	0.000083 U	0.00005 U	0.001 U	0.001 U	0.001 U
Methoxychlor	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.0005 U	--	0.00005 U	0.00005 U	0.00005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Toxaphene	--	--	--	--	--	--	--	0.001 U	--	--	0.0002 U	--	0.0002 U	0.0002 U	0.00024 U	0.00024 U	0.00024 U	0.0001 U	0.001 U	0.001 U	0.001 U
SVOCs																					
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
2,4,6-Trichlorophenol	0.006 U	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	--	--	--	0.002 U	--	0.005 U	--	--	--	0.00111 U	ND	0.002 U	0.002 U	0.002 U
2,4-Dichlorophenol	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	--	--	--	0.0016 U	--	0.004 U	--	--	--	0.00193 U	ND	0.002 U	0.002 U	0.002 U
2,4-Dimethylphenol	0.002 U	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	--	--	0.0009 U	--	0.003 U	--	--	--	0.00104 U	ND	0.002 U	0.002 U	0.002 U
2,4-Dinitrophenol	ND	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	--	--	0.015 U	--	0.04 U	--	--	--	0.013 U	ND	0.02 U	0.02 U	0.02 U
2-Chlorophenol	0.002 U	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	--	--	0.0007 U	--	0.003 U	--	--	--	0.00055 U	ND	0.001 U	0.001 U	0.001 U
2-Methyl-4,6-dinitrophenol	ND	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	--	--	0.015 U	--	0.03 U	--	--	--	0.016 U	ND	0.02 U	0.02 U	0.02 U
2-Nitrophenol	0.002 U	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	--	--	0.0007 U	--	0.005 U	--	--	--	0.00208 U	ND	0.002 U	0.002 U	0.002 U
4-Chloro-3-methylphenol	0.01 U	0.0025 U	0.01 U	0.01 U	0.01 U	ND	--	--	--	--	0.0015 U	--	0.005 U	--	--	--	0.00222 U	ND	0.002 U	0.002 U	0.002 U
4-Nitrophenol	ND	ND	--	--	--	ND	--	--	--	--	0.035 U	--	0.04 U	--	--	--	0.00523 U	ND	0.005 U	0.005 U	0.005 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Pentachlorophenol	ND	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	--	--	0.009 U	--	0.015 U	--	--	--	0.0074 U	ND	0.01 U	0.01 U	0.01 U
Phenol	0.002 U	0.001 U	0.002 U	0.002 U	0.002 U	ND	--	0.01 U	--	--	0.0006 U	--	0.0025 U	--	0.003 U	0.008	0.00128 U	ND	0.002 U	0.002 U	0.002 U

TABLE H-1

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-1 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	11/26/1984	1/31/1985	4/10/1985	5/23/1985	6/6/1985	9/19/1985	9/19/1985 (Dup)	7/23/1986	10/29/1986	10/29/1986 (Dup)	3/5/1987	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	4/18/1990	4/18/1990 (Dup)
VOCs[3]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	1 U	1 U
1,1,1-Trichloroethane	0.00005 U	0.0002 U	0.0011	0.00003 U	0.00003 U	ND	--	0.0001 U	0.00013 U	0.00013 U	0.0002 U	--	0.000015 U	0.000015 U	0.00003 U	0.00003 U	0.00003 U	0.0005 U	0.001 U	--	0.001 U
1,1,2,2-Tetrachloroethane	0.000002	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	--	0.0001 U	0.00019 U	0.00019 U	0.0004 U	--	0.000015 U	0.000015 U	0.00003 U	0.00003 U	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	ND	0.00005 U	0.0001 U	0.00002 U	0.00002 U	ND	--	0.0001 U	0.00016 U	0.00016 U	0.0001 U	--	0.000015 U	0.000015 U	0.00002 U	0.00002 U	0.00002 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.0006 U	0.0006 U	0.0001 U	0.00007 U	0.00004	ND	--	ND	0.00016 U	0.00016 U	0.0004 U	--	0.000015 U	0.000015 U	0.00007 U	0.00007 U	0.00007 U	0.0005 U	0.001 U	--	0.001 U
1,1-Dichloroethene	0.00005 U	0.00005 U	0.0001 U	0.00013 U	0.00013 U	ND	--	0.0001 U	--	--	--	--	0.000015 U	0.000015 U	0.00013 U	0.00013 U	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.00002 U	0.0002 U	0.0005 U	0.00015 U	0.00015 U	ND	--	0.0001 U	0.00016 U	0.00016 U	--	--	0.00007 U	0.00007 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.00003 U	0.00003 U	0.0001 U	0.00003 U	0.00003 U	ND	--	0.0001 U	0.00018 U	0.00018 U	0.0002 U	--	0.000015 U	0.000015 U	0.00003 U	0.00003 U	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	0.0003 U	0.0003 U	0.0001 U	0.00004 U	0.00004 U	ND	--	0.0005 U	0.00016 U	0.00016 U	0.0002 U	--	0.000015 U	0.000015 U	0.00004 U	0.00004 U	0.00004 U	0.0005 U	--	--	--
1,3-Dichlorobenzene	0.00002 U	0.0002 U	0.0005 U	0.00032 U	0.00032 U	ND	--	0.0001 U	0.00017 U	0.00017 U	--	--	0.00005 U	0.00005 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.00004 U	0.0002 U	0.0005 U	0.00024 U	0.00024 U	ND	--	0.0001 U	0.0001 U	0.0001 U	--	--	0.00005 U	0.00005 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U
2-Chloroethyl vinyl ether	ND	ND	--	0.00013 U	0.00013 U	ND	--	0.0001 U	0.00084 U	0.00084 U	0.001 U	--	0.0005 U	0.0005 U	0.00013 U	0.00013 U	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Benzene	--	0.0005 U	--	--	--	--	--	0.0002 U	0.0013 U	0.0013 U	0.0065 U	--	0.0008 U	0.0008 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	0.000015 U	0.00004 U	0.00005 U	0.0001 U	0.0001 U	ND	--	0.0001 U	--	--	--	--	0.000015 U	0.000015 U	0.0001 U	0.0001 U	0.0001 U	0.0005 U	0.001 U	--	0.001 U
Bromoform	0.000006	0.000015 U	0.0001 U	0.0002 U	0.0002 U	ND	--	0.0001 U	0.00081 U	0.00081 U	0.001 U	--	0.0005 U	0.0005 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	--	0.001 U
Bromomethane	ND	ND	--	0.00118 U	0.00118 U	ND	--	0.0001 U	--	--	--	--	0.0005 U	--	0.00118 U	0.00118 U	0.00118 U	0.0005 U	0.001 U	0.001 U	0.001 U
Carbon tetrachloride	0.00002 U	0.0001 U	0.00005 U	0.00012 U	0.00012 U	ND	--	0.0005 U	0.00013 U	0.00013 U	0.0001 U	--	0.000015 U	0.000015 U	0.00012 U	0.00012 U	0.00012 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.0003 U	0.0003 U	0.0005 U	0.00025 U	0.00025 U	ND	--	0.0001 U	0.00017 U	0.00017 U	0.0003 U	--	0.00002 U	0.00002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	--	0.001 U
Chloroethane	ND	ND	--	0.00052 U	0.00052 U	ND	--	0.0001 U	0.00017 U	0.00017 U	0.0006 U	--	0.000015 U	0.000015 U	0.00052 U	0.00052 U	0.00052 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chloroform	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	ND	--	0.0001 U	0.00017 U	0.00017 U	0.0002 U	--	0.000005 U	0.000005 U	0.00005 U	0.00005 U	0.00005 U	0.0005 U	0.001 U	--	0.002
Chloromethane	ND	ND	--	0.00008 U	0.00008 U	ND	--	0.0001 U	--	--	--	--	0.00002 U	0.00002 U	0.00008 U	0.00008 U	0.00008 U	0.0005 U	0.001 U	--	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
cis-1,3-Dichloropropene	ND	0.00005 U	0.0001 U	0.0002 U	0.0002 U	ND	--	0.0001 U	--	--	--	--	0.000015 U	0.000015 U	0.0002 U	0.0002 U	0.0002 U	0.0005 U	0.001 U	--	0.001 U
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	0.0014 U	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	0.0001 U	0.00009 U	0.00009 U	ND	--	0.0001 U	--	--	--	--	0.000015 U	0.000015 U	0.00009 U	0.00009 U	0.00009 U	0.001 U	0.001 U	--	0.001 U
Dichlorodifluoromethane (Freon 12)	ND	ND	--	0.00181 U	0.00181 U	ND	--	0.0001 U	--	--	--	--	0.0005 U	--	0.00181 U	0.00181 U	0.00181 U	0.0005 U	--	--	--
Ethylbenzene	--	0.0005 U	--	--	--	--	--	0.0002 U	0.0016 U	0.0016 U	0.0095 U	--	0.0005 U	0.0005 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	--	0.001 U
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Methylene chloride	0.0002 U	0.0002 U	0.0005 U	0.00025 U	0.0001	0.00013	--	0.0005 U	0.00018 U	0.00018 U	0.0003 U	--	0.00007	0.00004	0.00025 U	0.00025 U	0.00025 U	0.0005 U	0.001 U	--	0.001 U
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	0.0002 U	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0002 U	0.0002 U	0.0002 U	ND	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	0.000002	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	--	0.0005 U	--	--	--	--	0.000015 U	0.000015 U	0.00003 U	0.00003 U	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U
Toluene	--	0.0005 U	--	--	--	--	--	0.0025	0.0015 U	0.0015 U	0.0067 U	--	0.0005 U	0.0005 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.0005 U	--	--	--
trans-1,2-Dichloroethene	0.0002 U	0.0002 U	0.0001 U	0.0001 U	0.0001 U	ND	--	0.0001 U	0.00018 U	0.00018 U	0.0004 U	--	0.000015 U	0.000015 U	0.0001 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	0.000015 U	0.000015 U	0.0002 U	0.00034 U	0.00034 U	ND	--	0.0005 U	--	--	--	--	0.00003 U	0.00003 U	0.00034 U	0.00034 U	0.00034 U	0.0005 U	0.001 U	--	0.001 U
Trichloroethene	0.0001 U	0.0002 U	0.00005 U	0.00012 U	0.00012 U	ND	--	0.0001 U	0.00016 U	0.00016 U	0.0001 U	--	0.000005 U	0.000005 U	0.00012 U	0.00012 U	0.00012 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (Freon 11)	0.000002 U	0.002 U	0.0005 U	ND	0.00003	ND	--	0.0001 U	0.00011 U	0.00011 U	0.0003 U	--	0.000015 U	0.000015 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--
Vinyl chloride	ND	ND	--	0.00018 U	0.00018 U	ND	--	0.0001 U	--	--	--	--	0.00025 U	0.00025 U	0.00018 U	0.00018 U	0.00018 U	0.0003 U	0.001 U	0.001 U	0.001 U
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
2. VOCs by EPA Method 524.2.
3. VOCs by EPA Method 8260 or by other unspecified method.

Abbreviations
EPA = US Environmental Protection Agency
PCBs = polychlorinated biphenyls
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/23/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	9/20/1985 (Dup)	7/24/1986	3/6/1987	3/6/1987 (Dup)	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	10/21/1988 (Dup)	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	11/16/1990
Conventionals																					
Acid Fraction	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	ND	ND	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	0.01	0.01	--	--	--	--	ND	ND	--	--	--
Chloride (Cl^-)	5.19	--	5.48	5.81	0.00477	0.00676	7	--	--	--	6.7	6.8	7	--	7.3	7.3	7.4	5.1	7.6	5.6	7.73
Fluoride (Fl^-)	0.58	0.000636	0.65	0.66	0.0005	0.00066	--	--	--	--	0.6	0.6	--	--	--	--	0.64	0.66	--	--	--
Nitrate (NO_3)	11	0.00862	8.94	9.14	0.00678	0.00735	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	1.48	1.47	--	--	--	--	1.2	1.21	--	--	--
Sulfate (SO_4)	3.96	0.0728	4.3	3.31	0.00301	0.00359	1 U	--	--	--	3.21	1U	6.6	--	1U	1U	11	1U	1.7	1 U	5 U
VOCs [2]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	10/13/1992 (Dup)	4/20/1993	10/12/1993	4/12/1994	10/11/1994	10/11/1994 (Dup)	4/26/1995	10/25/1995	2/21/1996	10/9/1996	10/9/1996 (Dup)	11/5/1997	8/23/2000
Conventionals																				
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride (Cl^-)	10	--	--	--	7	7.1	7	7.3	7.3	8	8	8.9	8	7.1	6.4	6.2	6.6	6.4	8.5	--
Fluoride (Fl^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate (SO_4)	1 U	--	--	--	3	3.8	4.1	4.2	5.3	5	5	4.4	4.3	5 U	5 U	5 U	5 U	5 U	5 U	--
VOCs[2]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.005 U
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroform	--	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.002 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	11/7/2006	4/11/2007	10/24/2007	10/24/2007 (Dup)	11/6/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	4/20/2011 (Dup)	10/18/2011
Conventionals																								
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride (Cl^-)	--	5 U	5 U	7	6.6	6.2	--	6.9	6.2	7.7	6	6.5	6.9	6.2	6.2	--	5.7	5.3	6.2	5.3	5.1	5.8	5.8	5.7
Fluoride (Fl^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate (SO_4)	--	25 U	25 U	2.7	4.4	4.6	--	3.8	4.6	4.4	4.1	4.2	4.1	2.8	2.9	--	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
VOCs [2]																								
1,1,1,2-Tetrachloroethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichlorobenzene	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trichlorobenzene	0.01 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dibromo-3-chloropropane	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.001 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3,5-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Isopropyltoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromoform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromomethane	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Carbon tetrachloride	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.00079	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromomethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane (Freon 12)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Hexachlorobutadiene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Isopropylbenzene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
m,p-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	--	--	--	--	--	--	--
Methylene chloride	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Naphthalene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Propylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
o-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	--	--	--	--	--	--	--
sec-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
tert-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Tetrachloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.014	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichlorofluoromethane (Freon 11)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trihalomethanes, total	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.002 U	0.002 U	--	--	0.0005 U	0.0005 U	0.0005 U
Vinyl chloride	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Xylenes, total	--	--	--	--	--	--	--	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0015 U	--	0.0015 U	--	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/23/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	9/20/1985 (Dup)	7/24/1986	3/6/1987	3/6/1987 (Dup)	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	10/21/1988 (Dup)	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	11/16/1990
Metals/Inorganics																					
Arsenic (As)	0.005 U	0.000004 U	0.005 U	0.004 U	0.000003 U	--	--	--	--	--	0.02 U	0.02 U	--	--	--	--	0.01 U	0.01 U	--	--	--
Barium (Ba)	0.57 U	0.000507 U	0.041 U	0.49 U	0.00045 U	--	--	--	--	--	0.01 U	0.1 U	--	--	--	--	0.1 U	0.1 U	--	--	--
Cadmium (Cd)	0.04 U	0.000022 U	0.003 U	0.003 U	0.000002 U	--	--	--	--	--	0.001 U	0.001 U	--	--	--	--	0.001 U	0.001 U	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	30.2	30	--	--	--	--	--	--	--	--	--
Chromium (Cr)	0.07 U	0.00004 U	0.014 U	0.004	0.000015 U	--	--	--	--	--	0.01 U	0.01 U	--	--	--	--	0.01 U	0.01 U	--	--	--
Copper (Cu)	0.02 U	0.000049 U	0.021 U	0.021 U	--	--	--	--	--	--	0.1 U	0.1 U	--	--	--	--	0.1 U	0.1 U	--	--	--
Iron (Fe)	--	--	--	--	0.00029	--	0.73	0.37	0.6	--	0.53	0.1 U	--	--	--	--	3.83	3.51	--	--	--
Lead (Pb)	0.33 U	0.00023 U	0.047 U	0.047 U	0.00002 U	--	--	--	--	--	0.02 U	0.02 U	--	--	--	--	0.01 U	0.01 U	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	8.9	8.5	--	--	--	--	--	--	7.1	--	--
Manganese (Mn)	--	--	--	--	0.00014	--	0.16	0.17	0.18	--	0.09	0.09	0.31	--	0.365	0.393	0.5	0.49	--	0.35	0.402
Mercury (Hg)	0.005 U	0.000005 U	0.001 U	0.001 U	0.000001 U	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	--	--	--
Nickel (Ni)	0.25 U	0.00023 U	0.042 U	0.023 U	--	--	--	--	--	--	0.1 U	0.1 U	--	--	--	--	--	--	--	--	--
Selenium (Se)	0.003 U	0.000005 U	0.005 U	0.004 U	0.000005 U	--	--	--	--	--	0.005 U	0.005 U	--	--	--	--	0.005 U	0.005 U	--	--	--
Silver (Ag)	0.04 U	0.000063 U	0.003 U	0.014 U	0.000005 U	--	--	--	--	--	0.005 U	0.005 U	--	--	--	--	0.001 U	0.001 U	--	--	--
Sodium (Na)	--	--	--	--	0.0356	--	--	--	--	--	34.7	35.2	32	--	29.4	28.8	44.8	29.1	32.4	31.5	33
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	5 U	5 U	--	--	--	--	--	--	--	--	--
Zinc (Zn)	0.39	0.00133	0.37	0.275	--	--	--	--	--	--	0.24	0.21	--	--	--	--	0.72	0.72	--	--	--
Pesticides/PCBs																					
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	--	0.001 U	0.001 U	0.001 U
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	--	0.001 U	0.001 U	0.001 U
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	0.000012 U	--	0.006 U	--	0.0001 U	0.000011 U	--	0.000011 U	0.000011 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
4,4'-DDE	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	0.000004 U	--	0.002 U	--	0.0001 U	0.000004 U	--	0.000004 U	0.000004 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
4,4'-DDT	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	0.000012 U	--	0.006 U	--	0.0001 U	0.000012 U	--	0.000012 U	0.000012 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
Aldrin	--	--	0.00005 U	0.00005 U	--	--	0.00005 U	0.000002 U	--	0.001 U	0.000005 U	0.00005 U	0.000004 U	--	0.000004 U	0.000004 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
alpha-BHC	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	0.000002 U	--	0.001 U	0.000005 U	0.00005 U	0.000003 U	--	0.000003 U	0.000003 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1016	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.0005 U	0.0005 U	--	--	--
Aroclor 1221	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.0005 U	0.0005 U	--	--	--
Aroclor 1232	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.0005 U	0.0005 U	--	--	--
Aroclor 1242	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.0005 U	0.0005 U	--	--	--
Aroclor 1248	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	--	--	--	--	0.0005 U	0.0005 U	--	--	--
Aroclor 1254	--	--	--	--	--	--	0.001 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.001 U	0.001 U	--	--	--
Aroclor 1260	--	--	--	--	--	--	0.001 U	--	--	--	0.001 U	0.001 U	0.00007 U	--	0.00007 U	0.00007 U	0.001 U	0.001 U	--	--	--
beta-BHC	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	0.000004 U	--	0.001 U	0.000005 U	0.00005 U	0.000006 U	--	0.000006 U	0.000006 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
Chlordane	--	--	--	--	--	--	0.0005 U	0.000015 U	--	0.025 U	0.00002 U	0.0005 U	0.000014 U	--	0.000014 U	0.000014 U	0.0001 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	0.000002 U	--	0.001 U	0.000005 U	0.00005 U	0.000009 U	--	0.000009 U	0.000009 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
Dieldrin	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	0.000004 U	--	0.002 U	0.00002 U	0.0001 U	0.000002 U	--	0.000002 U	0.000002 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endosulfan I	--	--	--	--	--	--	0.00005 U	0.000004 U	--	0.002 U	0.000015 U	0.00005 U	0.000014 U	--	0.000014 U	0.000014 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
Endosulfan II	--	--	--	--	--	--	0.0001 U	0.000012 U	--	0.002 U	0.00002 U	0.0001 U	0.000004 U	--	0.000004 U	0.000004 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endosulfan sulfate	--	--	0.0001 U	0.0001 U	--	--	0.0001 U	0.00002 U	--	0.006 U	0.0001 U	0.0001 U	0.000066 U	--	0.000066 U	0.000066 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endrin	--	--	0.00005 U	0.00005 U	--	--	0.0001 U	0.000015 U	--	0.002 U	0.00002 U	0.0001 U	0.000006 U	--	0.000006 U	0.000006 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U
Endrin aldehyde	--	--	0.0001 U	0.0001 U	--	--	--	0.00002 U	--	0.006 U	0.00006 U	--	0.000023 U	--	0.000023 U	0.000023 U	0.0001 U	--	0.001 U	0.001 U	0.001 U
Endrin ketone	--	--	--	--	--	--	0.0001 U	--	--	--	0.0002 U	0.0002 U	--	--	--	--	--	--	--	--	--
gamma-BHC	--	--	0.000015 U	0.000015 U	--	--	0.00005 U	0.000002 U	--	0.001 U	0.000005 U	0.00005 U	0.000004 U	--	0.000004 U	0.000004 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	0.00005 U	0.00005 U	--	--	0.00005 U	0.000002 U	--	0.001 U	0.000005 U	0.00005 U	0.000003 U	--	0.000003 U	0.000003 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
Heptachlor epoxide	--	--	0.00005 U	0.00005 U	--	--	0.00005 U	0.00002 U	--	0.001 U	0.000015 U	0.00005 U	0.000083 U	--	0.000083 U	0.000083 U	0.00005 U	0.00005 U	0.001 U	0.001 U	0.001 U
Methoxychlor	--	--	--	--	--	--	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.00005 U	--	0.00005 U	0.00005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Toxaphene	--	--	--	--	--	--	0.001 U	0.0002 U	--	--	0.0002 U	0.001 U	0.00024 U	--	0.00024 U	0.00024 U	0.0001 U	0.002 U	0.001 U	0.001 U	0.001 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	10/13/1992 (Dup)	4/20/1993	10/12/1993	4/12/1994	10/11/1994	10/11/1994 (Dup)	4/26/1995	10/25/1995	2/21/1996	10/9/1996	10/9/1996 (Dup)	11/5/1997	8/23/2000
Metals/Inorganics																				
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	0.46	--	--	--	0.5	0.51	0.53	0.53	0.56	0.57	6.8	0.46	0.46	0.48	0.5	0.35	0.38	0.4	0.34	--
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	47	--	--	--	37	46	37.5	37.2	29.8	28.1	38	30.9	31.2	28.4	15.7	34.6	36.3	37.2	31	--
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																				
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDE	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDT	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aldrin	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-BHC	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Aroclor 1016	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1221	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1232	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1242	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1248	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1254	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1260	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
beta-BHC	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Chlordane	0.001 U	--	0.001 U	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
delta-BHC	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Dieldrin	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan I	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Endosulfan II	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan sulfate	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin aldehyde	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Heptachlor	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Heptachlor epoxide	0.0001 U	--	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Methoxychlor	0.0005 U	--	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0005 U
Toxaphene	0.001 U	--	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	11/7/2006	4/11/2007	10/24/2007	10/24/2007 (Dup)	11/6/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	4/20/2011 (Dup)	10/18/2011
Metals/Inorganics																								
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	--	0.23	0.23	0.17	0.17	0.15	--	0.14	0.14	0.17	0.18	0.14	0.21	0.13	0.099	--	0.094	0.1	0.085	0.11	0.1	0.1	0.1	0.12
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	--	35	35	30	32	32	--	35	39	37	36	38	34	33	35	--	37	34	36	31	33	35	35	31
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																						--	--	
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000095 U	0.000097 U	--	--	--
4,4'-DDD	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
4,4'-DDE	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
4,4'-DDT	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	--	--	0.000097 U	0.000096 U	0.000096 U
Aldrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
alpha-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Chlordane	--	--	--	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Dieldrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endosulfan I	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endosulfan II	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endosulfan sulfate	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endrin aldehyde	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
gamma-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Heptachlor	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Heptachlor epoxide	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Methoxychlor	--	--	--	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000097 U	0.000096 U	0.000096 U
Toxaphene	--	--	--	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000000097 U	0.000000096 U	0.000000096 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/23/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	9/20/1985 (Dup)	7/24/1986	3/6/1987	3/6/1987 (Dup)	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	10/21/1988 (Dup)	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	11/16/1990
SVOCs																					
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	--	0.002 U	--	--	0.005 U	0.005 U	--	--	0.00111 U	0.00111 U	ND	--	0.002 U	0.002 U	0.002 U
2,4-Dichlorophenol	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	--	0.0016 U	--	--	0.004 U	--	--	--	0.00193 U	0.00193 U	ND	--	0.002 U	0.002 U	0.002 U
2,4-Dimethylphenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	0.0009 U	--	--	0.003 U	--	--	--	0.00104 U	0.00104 U	ND	--	0.002 U	0.002 U	0.002 U
2,4-Dinitrophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	0.015 U	--	--	0.04 U	--	--	--	0.013 U	0.013 U	ND	--	0.02 U	0.02 U	0.02 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	0.0007 U	--	--	0.003 U	--	--	--	0.00055 U	0.00055 U	ND	--	0.001 U	0.001 U	0.001 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	0.015 U	--	--	0.03 U	--	--	--	0.016 U	0.016 U	ND	--	0.02 U	0.02 U	0.02 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	--	0.0007 U	--	--	0.005 U	--	--	--	0.00208 U	0.00208 U	ND	--	0.002 U	0.002 U	0.002 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3´-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	0.0025 U	0.01 U	0.01 U	0.01 U	ND	--	--	0.0015 U	--	--	0.005 U	--	--	--	0.00222 U	0.00222 U	ND	--	0.002 U	0.002 U	0.002 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	ND	--	--	--	ND	--	--	0.035 U	--	--	0.04 U	--	--	--	0.00523 U	0.00523 U	ND	--	0.005 U	0.005 U	0.005 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b/k)fluoranthenes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	--	0.009 U	--	--	0.015 U	--	--	--	0.0074 U	0.0074 U	ND	--	0.01 U	0.01 U	0.01 U
Pentafluorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.001 U	0.002 U	0.002 U	0.002 U	ND	--	0.01 U	0.0006 U	--	--	0.0025 U	--	0.008	0.003 U	0.00128 U	0.00128 U	ND	--	0.002 U	0.002 U	0.002 U
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	10/13/1992 (Dup)	4/20/1993	10/12/1993	4/12/1994	10/11/1994	10/11/1994 (Dup)	4/26/1995	10/25/1995	2/21/1996	10/9/1996	10/9/1996 (Dup)	11/5/1997	8/23/2000
SVOCs																				
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	0.05 U	--	--	--	--	--	--	0.003 U	--	--	--	--
2,4,6-Trichlorophenol	0.005 U	0.005 U	--	--	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.02 U
2,4-Dichlorophenol	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dimethylphenol	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dinitrophenol	0.01 U	0.01 U	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.05 U	0.05 U	0.05 U	0.05 U	0.01 U	0.05 U	0.05 U	0.052 U	0.05 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
2-Chlorophenol	0.005 U	0.005 U	--	--	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Methyl-4,6-dinitrophenol	0.01 U	0.01 U	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.031 U	0.05 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	0.01 U	--	--	--	--	--	--	0.003 U	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.01 U	0.01 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.015 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
4-Chloro-3-methylphenol	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
4-Methylphenol	--	--	--	--	--	--	--	--	0.01 U	--	--	--	--	--	--	0.003 U	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.02 U	0.021 U	0.025 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15 U
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(b/k)fluoranthenes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzoic acid	--	--	--	--	--	--	--	--	0.05 U	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	0.01 U	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	0.0005 U	--	--	0.0005 U	0.005 U	--	--	--	0.0005 U	--	--	--	--	--	--	0.0005 U	--	--	--	--
Pentachlorophenol	0.005 U	0.005 U	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.02 U	0.01 U	0.05 U
Pentafluorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Phenol	0.005 U	0.005 U	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	11/7/2006	4/11/2007	10/24/2007	10/24/2007 (Dup)	11/6/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	4/20/2011 (Dup)	10/18/2011
SVOCs																								
1,2,4-Trichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	0.005 U	--	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
1,4-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 UJ	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,4,5-Trichlorophenol	--	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,4,6-Trichlorophenol	0.02 U	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,4-Dichlorophenol	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 UJ	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,4-Dimethylphenol	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,4-Dinitrophenol	0.05 U	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	--	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U	0.049 U
2,4-Dinitrotoluene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 UJ	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
2,6-Dinitrotoluene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2-Chloronaphthalene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2-Chlorophenol	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2-Hexanone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	0.05 U	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	--	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U	0.020 U
2-Methylnaphthalene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
2-Methylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
2-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.019 U	0.02 U	0.02 U	--	--	0.019 U	0.019 U	0.020 U
2-Nitrophenol	0.015 U	--	--	0.015 U	0.015 U	0.015 U	--	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	--	0.0097 U	0.01 U	0.01 U	0.0005 UJ	0.0096 U	0.0096 U	0.0096 U	0.0098 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	--	0.0096 U	0.0096 U	--
3,3´-Dichlorobenzidine	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.019 U	0.020 U
3-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U	0.020 U
4-Bromophenyl phenyl ether	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
4-Chloro-3-methylphenol	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
4-Chloroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.019 U	0.02 U	0.02 U	--	--	0.019 U	0.019 U	0.020 U
4-Chlorophenyl phenyl ether	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
4-Methylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	--	--	--	--	--	--	--	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
4-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U	0.020 U
4-Nitrophenol	0.025 U	--	--	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	--	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U	0.049 U
Acenaphthene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Acenaphthylene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.019 U	0.020 U
Anthracene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Azobenzene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Benzidine	0.15 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Benzo(b)fluoranthene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	0.01 U	0.01 U	--	--	--	--	--
Benzo(b/k)fluoranthenes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	--	--	--	--	0.0096 U	0.0096 U	0.0098 U
Benzo(g,h,i)perylene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Benzo(k)fluoranthene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	0.0005 U	0.0096 U	--	--	--
Benzoic acid	--	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U	0.025 U	--	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U	0.049 U
Benzyl alcohol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 UJ	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Bis(2-chloroethoxy)methane	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Bis(2-chloroethyl) ether	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Bis(2-chloroisopropyl) ether	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Bis(2-ethylhexyl) phthalate	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Butyl benzyl phthalate	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Dibenz(a,h)anthracene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Dibenzofuran	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Diethyl phthalate	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Dimethyl phthalate	0.02 U	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Di-n-butyl phthalate	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Di-n-octyl phthalate	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Fluoranthene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Fluorene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Hexachlorobenzene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Hexachlorobutadiene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Hexachlorocyclopentadiene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Hexachloroethane	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	0.0049 U
Indeno(1,2,3-cd)pyrene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 UJ	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Isophorone	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Naphthalene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Nitrobenzene	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
N-Nitrosodimethylamine	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 UJ	0.0096 U	0.0096 U	0.0096 U	0.0098 U
N-Nitrosodiphenylamine	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0097 U	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.05 U	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	--	--	0.03 U	0.03 U	0.009 UJ	0.029 U	0.029 U	0.029 U	.0.029 U
Pentafluorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.029 U	--	--	--	--	--	--	--
Phenanthrene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U
Phenol	0.01 U	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	0.01 U	0.01 U	0.0005 U	0.0096 U	0.0096 U	0.0096 U	0.0098 U
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	--	--	--	--			--
Pyrene	0.005 U	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/23/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	9/20/1985 (Dup)	7/24/1986	3/6/1987	3/6/1987 (Dup)	4/23/1987	7/9/1987	7/9/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	10/21/1988 (Dup)	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	11/16/1990
VOCs[3]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	1 U	1 U
1,1,1-Trichloroethane	0.0002 U	0.00005 U	0.00003 U	0.00003 U	ND	--	0.0001 U	0.0002 U	--	--	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.00003 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	--	0.0001 U	0.0004 U	--	--	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.00003 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	0.00005 U	0.0001 U	0.00002 U	0.00002 U	ND	--	0.0001 U	0.0001 U	--	--	0.000015 U	0.000015 U	0.00002 U	--	0.00002 U	0.00002 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.0006 U	0.0001 U	0.00007 U	0.00007 U	ND	--	0.0001 U	0.0004 U	--	--	0.000015 U	0.000015 U	0.00007 U	--	0.00007 U	0.00007 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	0.00005 U	0.0001 U	0.00013 U	0.00013 U	ND	--	0.0001 U	--	--	--	0.000015 U	0.000015 U	0.00013 U	--	0.00013 U	0.00013 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0002 U	0.0005 U	0.00015 U	0.00015 U	ND	--	0.0001 U	--	--	--	0.00007 U	0.00007 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.00003 U	0.0001 U	0.00003 U	0.00003 U	ND	--	0.0001 U	0.0002 U	--	--	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.00003 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	0.0003 U	0.0001 U	0.00004 U	0.00004 U	ND	--	0.0001 U	0.0002 U	--	--	0.000015 U	0.000015 U	0.00004 U	--	0.00004 U	0.00004 U	0.0005 U	0.0005 U	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0002 U	0.0005 U	0.00032 U	0.00032 U	ND	--	0.0001 U	--	--	--	0.00005 U	0.00005 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.0002 U	0.0005 U	0.00024 U	0.00024 U	ND	--	0.0001 U	--	--	--	0.00005 U	0.00005 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ND	--	0.00013 U	0.00013 U	ND	--	0.0001 U	0.001 U	--	--	0.0005 U	0.0005 U	0.00013 U	--	0.00013 U	0.00013 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.0005 U	--	--	ND	--	--	0.0002 U	0.0065 U	--	--	0.0008 U	0.0008 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
Bromodichloromethane	0.00004 U	0.00005 U	0.0001 U	0.0001 U	ND	--	0.0001 U	--	--	--	0.000015 U	0.000015 U	0.0001 U	--	0.0001 U	0.0001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Bromoform	0.000015 U	0.0001 U	0.0002 U	0.0002 U	ND	--	0.0001 U	0.001 U	--	--	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U
Bromomethane	ND	--	0.00118 U	0.00118 U	ND	--	0.0001 U	--	--	--	0.0005 U	0.0005 U	0.00118 U	--	0.00118 U	0.00118 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.0001 U	0.00005 U	0.00012 U	0.00012 U	ND	--	0.0001 U	0.0001 U	--	--	0.000015 U	0.000015 U	0.00012 U	--	0.00012 U	0.00012 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.0003 U	0.0005 U	0.00025 U	0.00025 U	ND	--	0.0001 U	0.0003 U	--	--	0.00002 U	0.00002 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	--	--
Chloroethane	ND	--	0.00052 U	0.00052 U	ND	--	0.0001 U	0.0006 U	--	--	0.000015 U	0.000015 U	0.00052 U	--	0.00052 U	0.00052 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chloroform	0.00005 U	0.00005 U	0.00005 U	0.00005 U	ND	--	0.0001 U	0.0002 U	--	--	0.000005 U	0.000005 U	0.00005 U	--	0.00005 U	0.00005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Chloromethane	ND	--	0.00008 U	0.00008 U	ND	--	0.0001 U	--	--	--	0.00002 U	0.00002 U	0.00008 U	--	0.00008 U	0.00008 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	0.00005 U	0.0001 U	0.0002 U	0.0002 U	ND	--	0.0001 U	--	--	--	0.000015 U	0.000015 U	0.0002 U	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Dibromochloromethane	0.00005 U	0.0001 U	0.00009 U	0.00009 U	ND	--	0.0001 U	--	--	--	0.000015 U	0.000015 U	0.00009 U	--	0.00009 U	0.00009 U	0.001 U	0.002 U	0.001 U	0.001 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	0.0014 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	ND	--	0.00181 U	0.00181 U	ND	--	0.0001 U	--	--	--	0.0005 U	0.0005 U	0.00181 U	--	0.00181 U	0.00181 U	0.0005 U	0.0005 U	--	--	--
Ethylbenzene	0.0005 U	--	--	ND	--	--	0.0002 U	0.0095 U	--	--	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.0002 U	0.0005 U	0.00025 U	0.00003	0.00013	--	0.0001 U	0.0003 U	--	--	0.0001	0.00008	0.00025 U	--	0.00025 U	0.00025 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	0.0002 U	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	0.0002 U	ND	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	0.001 U	0.001 U
Tetrachloroethanes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	--	0.0001 U	--	--	--	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.00003 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Toluene	0.0005 U	--	--	ND	--	--	0.0002 U	0.0067 U	--	--	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--	0.0005 U	0.0005 U	--	--	--
trans-1,2-Dichloroethene	0.0002 U	0.0001 U	0.0001 U	0.0001 U	ND	--	0.0001 U	0.0004 U	--	--	0.000015 U	0.000015 U	0.0001 U	--	0.0001 U	0.0001 U	0.001 U	--	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	0.000015 U	0.0002 U	0.00034 U	0.00034 U	ND	--	0.0001 U	--	--	--	0.00003 U	0.00003 U	0.00034 U	--	0.00034 U	0.00034 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.0002 U	0.00005 U	0.00012 U	0.00012 U	ND	--	0.0001 U	0.0001 U	--	--	0.000005 U	0.000005 U	0.00012 U	--	0.00012 U	0.00012 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane (Freon 11)	0.002 U	0.0005 U	ND	0.00034	ND	--	0.0001 U	0.0003 U	--	--	0.000015 U	0.000015 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U
Trichlorotrifluoroethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	ND	--	0.00018 U	0.00018 U	ND	--	0.0001 U	--	--	--	0.00025 U	0.00025 U	0.00018 U	--	0.00018 U	0.00018 U	0.0003 U	0.0003 U	0.001 U	0.001 U	0.001 U
Xylenes, total	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	10/13/1992 (Dup)	4/20/1993	10/12/1993	4/12/1994	10/11/1994	10/11/1994 (Dup)	4/26/1995	10/25/1995	2/21/1996	10/9/1996	10/9/1996 (Dup)	11/5/1997	8/23/2000
VOCs[3]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2,2-Tetrachloroethane	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2-Trichloroethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,1-Dichloroethene	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,2-Dichloroethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,2-Dichloropropane	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloroethyl vinyl ether	0.0005 U	--	--	0.0005 U	0.0005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	--	--	--	--	0.001 U	--	--	--	0.005 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Bromoform	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Bromomethane	0.001 U	--	--	0.001 U	0.01 U	ND	ND	ND	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Chlorobenzene	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Chloroethane	0.001 U	--	--	0.001 U	0.01 U	ND	ND	ND	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Chloroform	0.0002 U	--	--	0.0002 U	0.0068	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Chloromethane	0.0005 U	--	--	0.0005 U	0.005 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--
cis-1,3-Dichloropropene	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Dibromochloromethane	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	0.001 U	--	--	--	--	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	--	--
Ethylbenzene	0.0005 U	--	--	0.0005 U	0.005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	0.0005 U	--	--	0.0005 U	0.005 U	--	--	--	0.001 U	--	--	--	--	--	--	0.001 U	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	0.002 U	--	--	0.002 U	0.02 U	0.027	0.0031	0.0058	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.002 U	0.01 U	0.01 U	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethanes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Toluene	0.0002 U	--	--	0.0002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
trans-1,3-Dichloropropene	0.0005 U	--	--	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Trichlorofluoromethane (Freon 11)	0.001 U	--	--	0.001 U	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--
Trichlorotrifluoroethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Vinyl chloride	0.0002 U	--	--	0.0002 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	0.001 U
Xylenes, total	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--

TABLE H-2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-2 [1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	11/7/2006	4/11/2007	10/24/2007	10/24/2007 (Dup)	11/6/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	4/20/2011 (Dup)	10/18/2011
VOCs[3]																								
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2-Butanone (MEK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
2-Chloroethyl vinyl ether	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Acetone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	0.005 U	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Methyl tert-butyl ether	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Tetrachloroethanes	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
Trichlorotrifluoroethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Vinyl chloride	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at reporting limit indicated; reporting limit is estimated.
2. VOCs by EPA Method 524.2.
3. VOCs by EPA Method 8260 or by other unspecified method.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone
PCBs = polychlorinated biphenyls
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/31/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	7/24/1986	3/5/1987	3/5/1987 (Dup)	4/23/1987	7/10/1987	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	5/6/1991	5/6/1991 (Dup)	5/10/1991
Conventionals																				
Acid Fraction	--	--	--	--	--	--	--	--	--	ND	--	--	--	ND	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	0.01	--	--	--	ND	--	--	--	--	--	--
Chloride (Cl^-)	5.91	0.00521	4.86	4.98	0.0056	8	--	--	--	6.1	7	--	5.8	6.9	6.9	7.2	4.9	10	10	--
Fluoride (F^-)	0.79	0.000663	0.6 U	0.61	0.00062	--	--	--	--	0.67	--	--	--	0.7	--	--	--	--	--	--
Nitrate (NO_3)	12.4	0.00813	8.38	8.26	0.00679	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	1.4	--	--	--	1.1	--	--	--	--	--	--
Sulfate (SO_4)	6.88	0.0912	4.17	3.56	0.00345	1 U	--	--	--	3.29	2 U	--	1 U	10	11	1.9	1 U	1 U	1 U	--
VOCs[2]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	4/20/1993	4/20/1993 (Dup)	10/12/1993	4/12/1994	10/11/1994	4/26/1995	4/26/1995 (Dup)	10/25/1995	2/21/1996	10/9/1996	3/26/1997	3/26/1997 (Dup)	11/5/1997	8/23/2000
Conventionals																			
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride (Cl^-)	--	--	6	6.7	6.3	6.7	6.9	7	8	7.6	6.3	6.3	5.5	5.9	5.7	5.9	6.3	7.4	--
Fluoride (Fl^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate (SO_4)	--	--	4	4	4	5.5	5.2	5	5	4.8	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	--
VOCs[2]																			
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2,2-Tetrachloroethane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2-Trichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloropropane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,3-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,4-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Benzene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromodichloromethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromoform	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromomethane	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.005 U
Carbon tetrachloride	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chlorobenzene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroethane	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroform	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloromethane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
cis-1,3-Dichloropropene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromochloromethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
Ethylbenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	--	--	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.002 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
o-Xylene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Tetrachloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Toluene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,2-Dichloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,3-Dichloropropene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichlorofluoromethane (Freon 11)	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011	10/18/2011 (DUP)
Conventionals																					
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--
Chloride (Cl^-)	--	5 U	6.2	5.6	5.5	--	6.3	4.8	6.6	4.3	6.2	6.2	6.3	4.7	5	5.4	4.6	4.7	5.0	4.7	4.8
Fluoride (F^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--
Sulfate (SO_4)	--	25 U	2.5	4	4.3	--	3.5	4.1	3.7	4.1	4	4	4	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
VOCs[2]																					
1,1,1,2-Tetrachloroethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichlorobenzene	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trichlorobenzene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dibromo-3-chloropropane	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.001 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3,5-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,4-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Isopropyltoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromoform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromomethane	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Carbon tetrachloride	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromomethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane (Freon 12)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Hexachlorobutadiene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Isopropylbenzene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
m,p-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--
Methylene chloride	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Naphthalene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Propylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
o-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--
sec-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
tert-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Tetrachloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichlorofluoromethane (Freon 11)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trihalomethanes, total	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.002 U	0.002 U	--	--	0.0005 U	0.0005 U	0.0005 U
Vinyl chloride	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Xylenes, total	--	--	--	--	--	--	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/31/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	7/24/1986	3/5/1987	3/5/1987 (Dup)	4/23/1987	7/10/1987	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	5/6/1991	5/6/1991 (Dup)	5/10/1991
Metals/Inorganics																				
Arsenic (As)	0.003 U	0.000004 U	0.005 U	0.004 U	0.000003 U	--	--	--	--	0.02 U	--	--	--	0.01 U	--	--	--	--	--	--
Barium (Ba)	0.7 U	0.000507 U	0.041 U	0.49 U	0.00045 U	--	--	--	--	0.1 U	--	--	--	0.1 U	--	--	--	--	--	--
Cadmium (Cd)	0.03 U	0.000022 U	0.003 U	0.003 U	0.000002 U	--	--	--	--	0.001 U	--	--	--	0.001 U	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	25.3	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	0.08 U	0.00004 U	0.007 U	0.005	0.000015 U	--	--	--	--	0.01 U	--	--	--	0.01 U	--	--	--	--	--	--
Copper (Cu)	0.04 U	0.000049 U	0.021 U	0.021 U	--	--	--	--	--	0.1 U	--	--	--	0.1 U	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	0.00037	0.87	0.53	--	--	2.6	--	--	--	2.73	--	--	--	--	--	--
Lead (Pb)	0.28 U	0.00023 U	0.047 U	0.047 U	0.00002 U	--	--	--	--	0.02 U	--	--	--	0.01 U	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	9.6	--	--	--	--	--	8	--	--	--	--
Manganese (Mn)	--	--	--	--	0.0002	0.29	0.32	--	--	0.05	0.13	--	0.195	0.28	0.272	--	0.31	0.29	0.29	--
Mercury (Hg)	0.005 U	0.000005 U	0.001 U	0.001 U	0.000001 U	--	--	--	--	0.0005 U	--	--	--	0.0005 U	--	--	--	--	--	--
Nickel (Ni)	0.32 U	0.00023 U	0.042 U	0.023 U	--	--	--	--	--	0.1 U	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	0.005 U	0.000005 U	0.005 U	0.004 U	0.000005 U	--	--	--	--	0.005 U	--	--	--	0.005 U	--	--	--	--	--	--
Silver (Ag)	0.05 U	0.000063 U	0.003 U	0.014 U	0.000005 U	--	--	--	--	0.005 U	--	--	--	0.001 U	--	--	--	--	--	--
Sodium (Na)	--	--	--	--	0.0356	--	--	--	--	35.8	32.5	--	29.8	40.5	43.1	32.4	33.4	43	122	--
Tin (Sn)	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	0.58	0.000619	0.39	0.298	--	--	--	--	--	0.16	--	--	--	0.76	--	--	--	--	--	--
Pesticides/PCBs																				
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.0001 U	0.001 U	0.001 U	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.0001 U	0.001 U	0.001 U	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000012 U	0.000012 U	0.006 U	--	0.000011 U	--	0.000011 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
4,4'-DDE	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000004 U	0.000004 U	0.002 U	--	0.000004 U	--	0.000004 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
4,4'-DDT	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000012 U	0.000012 U	0.006 U	--	0.000012 U	--	0.000012 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Aldrin	--	--	0.00005 U	0.00005 U	--	0.00005 U	0.000002 U	0.000002 U	0.001 U	0.000005 U	0.000004 U	--	0.000004 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
alpha-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	0.000002 U	0.001 U	0.000005 U	0.000003 U	--	0.000003 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1016	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1221	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1232	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1242	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1248	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1254	--	--	--	--	--	0.001 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.001 U	--	--	--	0.001 U	0.001 U	--
Aroclor 1260	--	--	--	--	--	0.001 U	--	--	--	0.001 U	0.00007 U	--	0.00007 U	0.001 U	--	--	--	0.001 U	0.001 U	--
beta-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000004 U	0.000004 U	0.001 U	0.000005 U	0.000006 U	--	0.000006 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Chlordane	--	--	--	--	--	0.0005 U	0.000015 U	0.000015 U	0.025 U	0.00002 U	0.000014 U	--	0.000014 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	0.000002 U	0.001 U	0.000005 U	0.000009 U	--	0.000009 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Dieldrin	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000004 U	0.000004 U	0.002 U	0.00002 U	0.000002 U	--	0.000002 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endosulfan I	--	--	--	--	--	0.00005 U	0.000004 U	0.000004 U	0.002 U	0.000015 U	0.000014 U	--	0.000014 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endosulfan II	--	--	--	--	--	0.0001 U	0.000012 U	0.000012 U	0.002 U	0.00002 U	0.000004 U	--	0.000004 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endosulfan sulfate	--	--	0.0001 U	0.0001 U	--	0.0001 U	0.00002 U	0.00002 U	0.006 U	0.0001 U	0.000066 U	--	0.000066 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endrin	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000015 U	0.000015 U	0.002 U	0.00002 U	0.000006 U	--	0.000006 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endrin aldehyde	--	--	0.0001 U	0.0001 U	--	--	0.00002 U	0.00002 U	0.006 U	0.00006 U	0.000023 U	--	0.000023 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Endrin ketone	--	--	--	--	--	0.0001 U	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--
gamma-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	0.000002 U	0.001 U	0.000005 U	0.000004 U	--	0.000004 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	0.00005 U	0.00005 U	--	0.00005 U	0.000002 U	0.000002 U	0.001 U	0.000005 U	0.000003 U	--	0.000003 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Heptachlor epoxide	--	--	0.00005 U	0.00005 U	--	0.00005 U	0.00002 U	0.00002 U	0.001 U	0.000015 U	0.000083 U	--	0.000083 U	0.00005 U	0.0001 U	0.001 U	0.001 U	0.0001 U	0.0001 U	--
Methoxychlor	--	--	--	--	--	0.0005 U	--	--	--	0.0005 U	0.00005 U	--	0.00005 U	0.0005 U	0.0001 U	0.0004	0.001 U	0.0005 U	0.0005 U	--
Toxaphene	--	--	--	--	--	0.001 U	0.0002 U	0.0002 U	--	0.0002 U	0.00024 U	--	0.00024 U	0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte Sample Date	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	4/20/1993	4/20/1993 (Dup)	10/12/1993	4/12/1994	10/11/1994	4/26/1995	4/26/1995 (Dup)	10/25/1995	2/21/1996	10/9/1996	3/26/1997	3/26/1997 (Dup)	11/5/1997	8/23/2000
Metals/Inorganics																			
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2	7.4	--	--
Manganese (Mn)	--	--	0.29	0.28	0.27	0.35	0.35	0.38	7.72	0.37	0.58	0.59	0.4	0.47	0.4	--	--	0.31	--
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	--	--	40	52	36.9	29.6	29.2	28.8	40	32.1	30.7	30.7	17.1	34.9	35.8	26	20	31	--
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																			
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDE	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDT	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aldrin	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-BHC	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Aroclor 1016	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1221	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1232	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1242	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1248	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1254	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1260	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
beta-BHC	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Chlordane	0.001 U	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
delta-BHC	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Dieldrin	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan I	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Endosulfan II	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan sulfate	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin aldehyde	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Heptachlor	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Heptachlor epoxide	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Methoxychlor	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0005 U
Toxaphene	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011	10/18/2011 (DUP)
Metals/Inorganics																					
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	--	0.19	0.19	0.2	0.24	--	0.22	0.19	0.097	0.11	0.14	0.15	0.17	0.16	0.11	0.081	0.09	0.053	0.044	0.066	0.074
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	--	36	31	33	34	--	36	39	36	36	37	37	36	37	35	37	34	33	37	32	32
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																					
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000095 UJ	0.000097 U	--	--	--
4,4'-DDD	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
4,4'-DDE	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
4,4'-DDT	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	--	--	0.000096 U	0.000097 U	0.000098 U
Aldrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
alpha-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Chlordane	--	--	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.000097 U	--	--	--	--	--	--	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Dieldrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endosulfan I	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endosulfan II	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endosulfan sulfate	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 UJ	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endrin aldehyde	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
gamma-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Heptachlor	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Heptachlor epoxide	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Methoxychlor	--	--	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.000097 U	0.0001 U	0.0001 U	0.000095 UJ	0.000097 U	0.000096 U	0.000097 U	0.000098 U
Toxaphene	--	--	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000097 U	.000000096	.000000097	0.0000000098 U

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/31/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	7/24/1986	3/5/1987	3/5/1987 (Dup)	4/23/1987	7/10/1987	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	5/6/1991	5/6/1991 (Dup)	5/10/1991
SVOCs																				
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	0.002 U	--	--	0.005 U	--	--	0.00111 U	ND	ND	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
2,4-Dichlorophenol	0.002 U	0.005 U	0.005 U	0.005 U	ND	--	0.0016 U	--	--	0.004 U	--	--	0.00193 U	ND	ND	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
2,4-Dimethylphenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	0.0009 U	--	--	0.003 U	--	--	0.00104 U	ND	ND	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
2,4-Dinitrophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	0.015 U	--	--	0.04 U	--	--	0.013 U	ND	ND	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	0.0007 U	--	--	0.003 U	--	--	0.00055 U	ND	ND	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	0.015 U	--	--	0.03 U	--	--	0.016 U	ND	ND	0.02 U	0.02 U	0.01 U	0.01 U	0.01 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.001 U	0.003 U	0.003 U	0.003 U	ND	--	0.0007 U	--	--	0.005 U	--	--	0.00208 U	ND	ND	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3´-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	0.0025 U	0.01 U	0.01 U	0.01 U	ND	--	0.0015 U	--	--	0.005 U	--	--	0.00222 U	ND	ND	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	ND	--	--	--	ND	--	0.035 U	--	--	0.04 U	--	--	0.00523 U	ND	ND	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--	--
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	0.001 U	0.001 U	0.001 U	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--
Pentachlorophenol	0.04 U	0.1 U	0.1 U	0.1 U	ND	--	0.009 U	--	--	0.015 U	--	--	0.0074 U	ND	ND	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.001 U	0.002 U	0.002 U	0.002 U	ND	0.01 U	0.0006 U	--	--	0.0025 U	0.003	0.007	0.00128 U	ND	ND	0.002 U	0.002 U	0.005 U	0.005 U	0.005 U
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	4/20/1993	4/20/1993 (Dup)	10/12/1993	4/12/1994	10/11/1994	4/26/1995	4/26/1995 (Dup)	10/25/1995	2/21/1996	10/9/1996	3/26/1997	3/26/1997 (Dup)	11/5/1997	8/23/2000
SVOCs																			
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	0.05 U	0.05 U	--	--	--	--	--	--	0.003 U	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.02 U
2,4-Dichlorophenol	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dimethylphenol	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dinitrophenol	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.05 U	0.05 U	0.05 U	0.05 U	0.01 U	0.05 U	0.05 U	0.05 U	0.052 U	0.05 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
2-Chlorophenol	--	--	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Methyl-4,6-dinitrophenol	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.031 U	0.05 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	0.01 U	0.01 U	--	--	--	--	--	--	0.003 U	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.015 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
4-Chloro-3-methylphenol	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
4-Methylphenol	--	--	--	--	--	0.01 U	0.01 U	--	--	--	--	--	--	0.003 U	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.02 U	0.02 U	0.021 U	0.025 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15 U
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzoic acid	--	--	--	--	--	0.05 U	0.05 U	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	0.0005 U	0.0005 U	--	--	0.0005 U	0.0005 U	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
Pentachlorophenol	--	--	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.01 U	0.01 U	0.01 U	0.05 U
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Phenol	--	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011	10/18/2011 (DUP)
SVOCs																					
1,2,4-Trichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
1,4-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,4,5-Trichlorophenol	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,4,6-Trichlorophenol	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,4-Dichlorophenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 UJ	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,4-Dimethylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,4-Dinitrophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.049 U	0.049 U
2,4-Dinitrotoluene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 UJ	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2-Chloronaphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2-Chlorophenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2-Hexanone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.020 U	0.019 U
2-Methylnaphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
2-Methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
2-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	--	--	0.019 U	0.020 U	0.019 U
2-Nitrophenol	--	--	0.015 U	0.015 U	0.015 U	--	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.0097 U	0.01 U	0.01 U	0.0006 UJ	0.0096 U	0.0097 U	0.0098 U	0.0097 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	0.0097 U	--	--
3,3′-Dichlorobenzidine	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.020 U	0.019 U
3-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.020 U	0.019 U
4-Bromophenyl phenyl ether	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
4-Chloro-3-methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
4-Chloroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	--	--	0.019 U	0.020 U	0.019 U
4-Chlorophenyl phenyl ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
4-Methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	--	--	--	--	--	--	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
4-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.020 U	0.019 U
4-Nitrophenol	--	--	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.049 U	0.049 U
Acenaphthene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Acenaphthylene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.020 U	0.019 U
Anthracene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Azobenzene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Benzo(b)fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--	--
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	0.0098 U	0.0097 U
Benzo(g,h,i)perylene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Benzo(k)fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	--	--	0.0006 U	0.0096 U	--	--	--
Benzoic acid	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.049 U	0.049 U
Benzyl alcohol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 UJ	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Bis(2-chloroethoxy)methane	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Bis(2-chloroethyl) ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Bis(2-chloroisopropyl) ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Bis(2-ethylhexyl) phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Butyl benzyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Dibenz(a,h)anthracene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Dibenzofuran	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Diethyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Dimethyl phthalate	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Di-n-butyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Di-n-octyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Fluorene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Hexachlorobenzene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Hexachlorobutadiene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Hexachlorocyclopentadiene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Hexachloroethane	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Isophorone	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 UJ	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Naphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Nitrobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 UJ	0.0096 U	0.0097 U	0.0098 U	0.0097 U
N-Nitrosodiphenylamine	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.029 U	0.03 U	0.03 U	0.009 UJ	0.029 U	0.029 U	0.029 U	0.029 U
Phenanthrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U
Phenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0097 U	0.01 U	0.01 U	0.0006 U	0.0096 U	0.0097 U	0.0098 U	0.0097 U
Pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0049 U	0.0049 U

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	1/31/1985	4/10/1985	5/24/1985	6/7/1985	9/20/1985	7/24/1986	3/5/1987	3/5/1987 (Dup)	4/23/1987	7/10/1987	4/21/1988	4/21/1988 (Dup)	10/21/1988	4/18/1989	4/18/1989 (Dup)	10/31/1989	4/18/1990	5/6/1991	5/6/1991 (Dup)	5/10/1991
VOCs[3]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	1 U	--	--	--
1,1,1-Trichloroethane	0.0002 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0002 U	--	--	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
1,1,2,2-Tetrachloroethane	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0004 U	--	--	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
1,1,2-Trichloroethane	0.00005 U	0.0001 U	0.00002 U	0.00002 U	ND	0.0001 U	0.0001 U	--	--	0.000015 U	0.00002 U	--	0.00002 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,1-Dichloroethane	0.0006 U	0.0001 U	0.00007 U	0.00007 U	ND	0.0001 U	0.0004 U	--	--	0.000015 U	0.00007 U	--	0.00007 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
1,1-Dichloroethene	0.00005 U	0.0001 U	0.00013 U	0.00013 U	ND	0.0001 U	--	--	--	0.000015 U	0.00013 U	--	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0002 U	0.0005 U	0.00015 U	0.00015 U	ND	0.0001 U	--	--	--	0.00007 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
1,2-Dichloroethane	0.00003 U	0.0001 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0002 U	--	--	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
1,2-Dichloropropane	0.0003 U	0.0001 U	0.00004 U	0.00004 U	ND	0.0001 U	0.0002 U	--	--	0.000015 U	0.00004 U	--	0.00004 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0002 U	0.0005 U	0.00032 U	0.00032 U	ND	0.0001 U	--	--	--	0.00005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
1,4-Dichlorobenzene	0.0002 U	0.0005 U	0.00024 U	0.00024 U	ND	0.0001 U	--	--	--	0.00005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ND	--	0.00013 U	0.00013 U	ND	0.0001 U	0.001 U	--	--	0.0005 U	0.00013 U	--	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.0005 U	--	--	ND	--	0.0002 U	0.0065 U	--	--	0.0008 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
Bromodichloromethane	0.00004 U	0.00005 U	0.0001 U	0.0001 U	ND	0.0001 U	--	--	--	0.000015 U	0.0001 U	--	0.0001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Bromoform	0.000015 U	0.0001 U	0.0002 U	0.0002 U	ND	0.0001 U	0.001 U	--	--	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
Bromomethane	ND	--	0.00118 U	0.00118 U	ND	0.0001 U	--	--	--	0.0005 U	0.00118 U	--	0.00118 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.0001 U	0.00005 U	0.00012 U	0.00012 U	ND	0.0001 U	0.0001 U	--	--	0.000015 U	0.00012 U	--	0.00012 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Chlorobenzene	0.0003 U	0.0005 U	0.00025 U	0.00025 U	ND	0.0001 U	0.0003 U	--	--	0.00002 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Chloroethane	ND	--	0.00052 U	0.00052 U	ND	0.0001 U	0.0006 U	--	--	0.000015 U	0.00052 U	--	0.00052 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Chloroform	0.00005 U	0.00005 U	0.00005 U	0.00005 U	ND	0.0001 U	0.0002 U	--	--	0.000005 U	0.00005 U	--	0.00005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Chloromethane	ND	--	0.00008 U	0.00008 U	ND	0.0001 U	--	--	--	0.00002 U	0.00008 U	--	0.00008 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
cis-1,3-Dichloropropene	0.00005 U	0.0001 U	0.0002 U	0.0002 U	ND	0.0001 U	--	--	--	0.000015 U	0.0002 U	--	0.0002 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
Dibromochloromethane	0.00005 U	0.0001 U	0.00009 U	0.00009 U	ND	0.0001 U	--	--	--	0.000015 U	0.00009 U	--	0.00009 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	0.0014 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	ND	--	0.00181 U	0.00181 U	ND	0.0001 U	--	--	--	0.0005 U	0.00181 U	--	0.00181 U	0.0005 U	--	--	--	--	--	--
Ethylbenzene	0.0005 U	--	--	ND	--	0.0002 U	0.0095 U	--	--	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.0002 U	0.0005 U	0.00025 U	0.00001	0.00037	0.0001 U	0.0003 U	--	--	0.00006	0.00025 U	--	0.00025 U	0.0005 U	0.001 U	0.008	0.001 U	0.002 U	0.002 U	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	ND	ND	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--
Tetrachloroethene	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	--	--	--	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Toluene	0.0005 U	--	--	ND	--	0.0002 U	0.0067 U	--	--	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.004	0.001 U	0.0002 U	0.0002 U	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	0.0005 U	--	--	--	--	--	--
trans-1,2-Dichloroethene	0.0002 U	0.0001 U	0.0001 U	0.0001 U	ND	0.0001 U	0.0004 U	--	--	0.000015 U	0.0001 U	--	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
trans-1,3-Dichloropropene	0.000015 U	0.0002 U	0.00034 U	0.00034 U	ND	0.0001 U	--	--	--	0.00003 U	0.00034 U	--	0.00034 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.0002 U	0.00005 U	0.00012 U	0.00012 U	ND	0.0001 U	0.0001 U	--	--	0.000005 U	0.00012 U	--	0.00012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Trichlorofluoromethane (Freon 11)	0.002 U	0.0005 U	ND	0.00041	ND	0.0001 U	0.0003 U	--	--	0.000015 U	0.0005 U	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	ND	--	0.00018 U	0.00018 U	ND	0.0001 U	--	--	--	0.00025 U	0.00018 U	--	0.00018 U	0.0003 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	--
Xylenes, total	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/28/1991	10/29/1991 (Dup)	10/29/1991	4/21/1992	10/13/1992	4/20/1993	4/20/1993 (Dup)	10/12/1993	4/12/1994	10/11/1994	4/26/1995	4/26/1995 (Dup)	10/25/1995	2/21/1996	10/9/1996	3/26/1997	3/26/1997 (Dup)	11/5/1997	8/23/2000
VOCs[3]																			
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,1,2,2-Tetrachloroethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,1,2-Trichloroethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,1-Dichloroethene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,2-Dichloroethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,2-Dichloropropane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloroethyl vinyl ether	--	0.0005 U	0.0005 U	0.005 U	0.005 U	0.01 U	0.005 U	0.01 U	0.01 U	--	--	--	--	0.001 U	--	--	--	--	0.005 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Bromoform	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Bromomethane	--	0.001 U	0.001 U	ND	ND	0.005 U	0.005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Chlorobenzene	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Chloroethane	--	0.001 U	0.001 U	ND	ND	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Chloroform	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Chloromethane	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	0.005 U	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
cis-1,3-Dichloropropene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Dibromochloromethane	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	0.001 U	0.001 U	--	--	--	0.005 U	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	0.005 U	--	--
Ethylbenzene	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	0.0005 U	0.0005 U	--	--	0.001 U	0.001 U	--	--	--	--	--	--	0.001 U	--	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	--	0.002 U	0.002 U	0.026	0.0046	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.002 U	0.01 U	0.01 U	0.01 U	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Toluene	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
trans-1,3-Dichloropropene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Trichlorofluoromethane (Freon 11)	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Vinyl chloride	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	0.002 U	--	0.001 U
Xylenes, total	--	--	--	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--

TABLE H-3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-3[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011	10/18/2011 (DUP)
VOCs[3]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--		--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2-Butanone (MEK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
2-Chloroethyl vinyl ether	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Acetone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	0.005 U	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
Methyl tert-butyl ether	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--	--
Vinyl chloride	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at reporting limit indicated; reporting limit is estimated
2. VOCs by EPA Method 524.2.
3. VOCs by EPA Method 8260 or by other unspecified method.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone
PCBs = polychlorinated biphenyls
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	3/22/1985	4/8/1985	5/23/1985	6/6/1985	9/20/1985	7/24/1986	3/6/1987	3/6/1987 (Dup)	7/10/1987	7/10/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	10/31/1989 (Dup)	4/18/1990	11/16/1990	11/16/1990 (Dup)	5/6/1991
Conventionals																				
Acid Fraction	--	--	--	--	--	--	--	--	ND	--	--	--	--	ND	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	ND	--	--	--	--	ND	--	--	--	--	--	--
Chloride (Cl^-)	0.00482	0.00502	4.67	4.63	0.00604	10	--	--	5.7	--	4.9	--	7.3	7.2	7.2	7.05	5.3	7.17	7.2	10
Fluoride (Fl^-)	0.000782	0.00082	0.796	0.76	0.00081	--	--	--	0.78	--	--	--	--	0.81	--	--	--	--	--	--
Nitrate (NO_3)	0.0109	0.00877	8.38	8.26	0.00678	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	1.48	--	--	--	--	1.31	--	--	--	--	--	--
Sulfate (SO_4)	0.00482	0.0871	4.24	3.06	0.00305	1 U	--	--	2.68	--	9	--	1 U	9	1.6	1.6	1 U	5 U	5 U	1 U
VOCs[2]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003	0.001 U	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	10/13/1992	4/20/1993	10/12/1993	10/12/1993 (Dup)	4/12/1994	10/11/1994	4/26/1995	10/25/1995	10/25/1995 (Dup)	2/21/1996	10/9/1996	3/26/1997	11/5/1997	8/23/2000	8/23/2000 (Dup)
Conventionals																				
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride (Cl^-)	--	--	6	6	6.7	6.1	6.7	7	7	8	8.5	6.9	5.4	5.4	5.4	6.5	5.5	7.1	--	--
Fluoride (Fl^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate (SO_4)	--	--	3	10	3.7	3.3	4.8	11	5	5	4.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	--	--
VOCs[2]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,1,2-Trichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,1-Dichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,1-Dichloroethene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,2-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,2-Dichloroethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,2-Dichloropropane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,3-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Benzene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Bromodichloromethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Bromoform	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Bromomethane	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.005 U	0.005 U
Carbon tetrachloride	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Chlorobenzene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Chloroethane	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Chloroform	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Chloromethane	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
cis-1,3-Dichloropropene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Dibromochloromethane	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U	0.001 U
Ethylbenzene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Methylene chloride	--	--	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.002 U	0.002 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
o-Xylene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Tetrachloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Toluene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
trans-1,2-Dichloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Trichloroethene	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Trichlorofluoromethane (Freon 11)	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Conventionals																						
Acid Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Base/neutral Fraction	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride (Cl^-)	5 U	5 U	4.6	4.1	3.7	--	4.8	2.6	4.6	2.7	5	5	5.8	4.4	4.3	3.4	3.8	3.5	3.3	2.6	3.9	3.3
Fluoride (Fl^-)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate (NO_3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite/nitrate, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate (SO_4)	25 U	25 U	2 U	3.6	3.7	--	2.9	3.1	3	3.6	3.4	3.4	3.7	2	2.1	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
VOCs[2]																						
1,1,1,2-Tetrachloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1-Trichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloropropene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trimethylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dibromo-3-chloropropane	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3,5-Trimethylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropene, total	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2,2-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chlorotoluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Chlorotoluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Isopropyltoluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromochloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromoform	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromomethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
Carbon tetrachloride	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.00056	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
cis-1,2-Dichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromomethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane (Freon 12)	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Hexachlorobutadiene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Isopropylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
m,p-Xylene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--
Methylene chloride	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
Naphthalene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Propylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
o-Xylene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--
sec-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
tert-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Tetrachloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,2-Dichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,3-Dichloropropene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichlorofluoromethane (Freon 11)	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trihalomethanes, total	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.0005 U	0.0005 U	0.00056	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.002 U	0.002 U	--	--	0.0005 U	0.0005 U
Vinyl chloride	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Xylenes, total	--	--	--	--	--	--	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0015 U	0.0015 U	--	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	3/22/1985	4/8/1985	5/23/1985	6/6/1985	9/20/1985	7/24/1986	3/6/1987	3/6/1987 (Dup)	7/10/1987	7/10/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	10/31/1989 (Dup)	4/18/1990	11/16/1990	11/16/1990 (Dup)	5/6/1991
Metals/Inorganics																				
Arsenic (As)	0.000005	0.000004 U	0.005 U	0.005 U	0.000003 U	--	--	--	0.02 U	--	--	--	--	0.01 U	--	--	--	--	--	--
Barium (Ba)	0.00049 U	0.000507 U	0.076	0.49 U	0.00045 U	--	--	--	0.1 U	--	--	--	--	0.1 U	--	--	--	--	--	--
Cadmium (Cd)	0.00003 U	0.000022 U	0.003 U	0.003 U	0.000002 U	--	--	--	0.001 U	--	--	--	--	0.001 U	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	29	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	0.0001 U	0.00004 U	0.036	0.006	0.000015 U	--	--	--	0.01 U	--	--	--	--	0.01 U	--	--	--	--	--	--
Copper (Cu)	0.00003 U	0.000049 U	0.021 U	0.021 U	--	--	--	--	0.1 U	--	--	--	--	0.1 U	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	0.00063	0.77	1.54	--	10.74	--	--	--	--	1.1	--	--	--	--	--	--
Lead (Pb)	0.0002 U	0.00023 U	0.047 U	0.047 U	0.00002 U	--	--	--	0.02 U	--	--	--	--	0.01 U	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	9.3	--	--	--	--	--	7.8	7.7	--	--	--	--
Manganese (Mn)	--	--	--	--	0.00018	0.34	0.44	--	0.3	--	0.21	--	0.183	0.22	--	--	0.126	0.162	0.168	0.23
Mercury (Hg)	0.000005 U	0.000005 U	0.001 U	0.001 U	0.000001 U	--	--	--	0.0005 U	--	--	--	--	0.0005 U	--	--	--	--	--	--
Nickel (Ni)	0.00017 U	0.00023 U	0.042 U	0.023 U	--	--	--	--	0.1 U	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	0.000003 U	0.000005 U	0.005 U	0.004 U	0.000005 U	--	--	--	0.005 U	--	--	--	--	0.005 U	--	--	--	--	--	--
Silver (Ag)	0.00003 U	0.000063 U	0.003 U	0.014 U	0.000005 U	--	--	--	0.005 U	--	--	--	--	0.001 U	--	--	--	--	--	--
Sodium (Na)	--	--	--	--	0.0346	--	--	--	32.4	--	31.9	--	28.3	37.1	31.3	31.1	32	32.9	32.9	45
Tin (Sn)	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	0.00049	0.000355	0.324	0.265	--	--	--	--	0.19	--	--	--	--	0.77	--	--	--	--	--	--
Pesticides/PCBs																				
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000012 U	--	--	--	0.000011 U	--	0.000011 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
4,4'-DDE	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000004 U	--	--	--	0.000004 U	--	0.000004 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
4,4'-DDT	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000012 U	--	--	--	0.000012 U	--	0.000012 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Aldrin	--	--	0.0002	0.00005 U	--	0.00005 U	0.000002 U	--	0.000005 U	--	0.000004 U	--	0.000004 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
alpha-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	--	0.000005 U	--	0.000003 U	--	0.000003 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1016	--	--	--	--	--	0.0005 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	--	--	0.001 U
Aroclor 1221	--	--	--	--	--	0.0005 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	--	--	0.001 U
Aroclor 1232	--	--	--	--	--	0.0005 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	--	--	0.001 U
Aroclor 1242	--	--	--	--	--	0.0005 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.0005 U	--	--	--	--	--	0.001 U
Aroclor 1248	--	--	--	--	--	0.0005 U	--	--	0.001 U	--	--	--	--	0.0005 U	--	--	--	--	--	0.001 U
Aroclor 1254	--	--	--	--	--	0.001 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.001 U	--	--	--	--	--	0.001 U
Aroclor 1260	--	--	--	--	--	0.001 U	--	--	0.001 U	--	0.00007 U	--	0.00007 U	0.001 U	--	--	--	--	--	0.001 U
beta-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000004 U	--	0.000005 U	--	0.000006 U	--	0.000006 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Chlordane	--	--	--	--	--	0.0005 U	0.00005	--	0.00002 U	--	0.000014 U	--	0.000014 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	--	0.000005 U	--	0.000009 U	--	0.000009 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Dieldrin	--	--	0.00015	0.00005 U	--	0.0001 U	0.000004 U	--	0.00002 U	--	0.000002 U	--	0.000002 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endosulfan I	--	--	--	--	--	0.00005 U	0.000004 U	--	0.000015 U	--	0.000014 U	--	0.000014 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endosulfan II	--	--	--	--	--	0.0001 U	0.000012 U	--	0.00002 U	--	0.000004 U	--	0.000004 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endosulfan sulfate	--	--	0.0001 U	0.0001 U	--	0.0001 U	0.00002 U	--	0.0001 U	--	0.000066 U	--	0.000066 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endrin	--	--	0.00005 U	0.00005 U	--	0.0001 U	0.000015 U	--	0.00002 U	--	0.000006 U	--	0.000006 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endrin aldehyde	--	--	0.0001 U	0.0001 U	--	--	0.00002 U	--	0.00006 U	--	0.000023 U	--	0.000023 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Endrin ketone	--	--	--	--	--	0.0001 U	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	--	--	0.000015 U	0.000015 U	--	0.00005 U	0.000002 U	--	0.000005 U	--	0.000004 U	--	0.000004 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	--	--	0.00005 U	0.00005 U	--	0.00005 U	0.000002 U	--	0.000005 U	--	0.000003 U	--	0.000003 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Heptachlor epoxide	--	--	0.00005 U	0.00005 U	--	0.00005 U	0.00002 U	--	0.000015 U	--	0.000083 U	--	0.000083 U	0.00005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0001 U
Methoxychlor	--	--	--	--	--	0.0005 U	--	--	0.0005 U	--	0.00005 U	--	0.00005 U	0.0005 U	0.0003	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Toxaphene	--	--	--	--	--	0.001 U	0.0002 U	--	0.0002 U	--	0.00024 U	--	0.00024 U	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	10/13/1992	4/20/1993	10/12/1993	10/12/1993 (Dup)	4/12/1994	10/11/1994	4/26/1995	10/25/1995	10/25/1995 (Dup)	2/21/1996	10/9/1996	3/26/1997	11/5/1997	8/23/2000	8/23/2000 (Dup)
Metals/Inorganics																				
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.5	--	--	--
Manganese (Mn)	--	--	0.32	0.32	0.23	0.21	0.22	0.23	0.21	0.21	0.23	0.28	0.3	0.3	0.26	0.37	--	0.3	--	--
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	--	--	35	36	45	35.6	29	28.3	29.1	39	30.8	28.6	16.3	15.8	32.5	34.3	20	30	--	--
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																				
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
4,4'-DDE	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
4,4'-DDT	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Aldrin	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
alpha-BHC	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U	--
Aroclor 1016	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1221	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1232	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1242	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1248	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1254	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Aroclor 1260	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	--
beta-BHC	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
Chlordane	--	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--
delta-BHC	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
Dieldrin	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Endosulfan I	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
Endosulfan II	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Endosulfan sulfate	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Endrin	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Endrin aldehyde	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U	--
Heptachlor	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
Heptachlor epoxide	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	--
Methoxychlor	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0005 U	--
Toxaphene	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Metals/Inorganics																						
Arsenic (As)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium (Ba)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium (Ca)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron (Fe)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead (Pb)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	0.3	0.29	0.26	0.24	0.24	--	0.21	0.21	0.14	0.098	0.071	0.07	0.13	0.075	0.14	0.066	0.085	0.074	0.072	0.08	0.071	0.06
Mercury (Hg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium (Se)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver (Ag)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium (Na)	32	32	28	29	32	--	32	34	33	34	33	34	32	32	32	33	31	33	29	30	33	29
Tin (Sn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides/PCBs																					--	
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000095 UJ	0.000096 U	--	--
4,4'-DDD	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
4,4'-DDE	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
4,4'-DDT	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	--	--	0.000096 U	0.000097 U
Aldrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
alpha-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Chlordane	--	--	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.00052 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.000097 U	--	--	--	--	--	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Dieldrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Endosulfan I	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Endosulfan II	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Endosulfan sulfate	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Endrin	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 UJ	0.000096 U	0.000096 U	0.000097 U
Endrin aldehyde	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
gamma-BHC	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Heptachlor	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Heptachlor epoxide	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.000052 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	0.000096 U	0.000097 U
Methoxychlor	--	--	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 UJ	0.000096 U	0.000096 U	0.000097 U
Toxaphene	--	--	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--	0.000097 U	0.0001 U	0.0001 U	0.000095 U	0.000096 U	.000000096	0.000000097 U

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	3/22/1985	4/8/1985	5/23/1985	6/6/1985	9/20/1985	7/24/1986	3/6/1987	3/6/1987 (Dup)	7/10/1987	7/10/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	10/31/1989 (Dup)	4/18/1990	11/16/1990	11/16/1990 (Dup)	5/6/1991
SVOCs																				
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.005 U	0.005 U	0.005 U	0.005 U	ND	--	0.002 U	0.002 U	0.005 U	0.005 U	--	--	0.00111 U	ND	0.002 U	0.002 U	0.002 U	0.03	0.01	0.005 U
2,4-Dichlorophenol	0.005 U	0.005 U	0.005 U	0.005 U	ND	--	0.0016 U	0.0016 U	0.004 U	0.004 U	--	--	0.00193 U	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U
2,4-Dimethylphenol	0.003 U	0.003 U	0.003 U	0.003 U	ND	--	0.0009 U	0.0009 U	0.003 U	0.003 U	--	--	0.00104 U	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U
2,4-Dinitrophenol	0.1 U	0.1 U	0.1 U	0.1 U	ND	--	0.015 U	0.015 U	0.04 U	0.04 U	--	--	0.013 U	ND	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.003 U	0.003 U	0.003 U	0.003 U	ND	--	0.0007 U	0.0007 U	0.003 U	0.003 U	--	--	0.00055 U	ND	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	0.1 U	0.1 U	0.1 U	0.1 U	ND	--	0.015 U	0.015 U	0.03 U	0.03 U	--	--	0.016 U	ND	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.003 U	0.003 U	0.003 U	0.003 U	ND	--	0.0007 U	0.0007 U	0.005 U	0.005 U	--	--	0.00208 U	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3´-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	0.01 U	0.01 U	0.01 U	0.01 U	ND	--	0.0015 U	0.0015 U	0.005 U	0.005 U	--	--	0.00222 U	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	ND	--	0.035 U	0.035 U	0.04 U	0.04 U	--	--	0.00523 U	ND	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U
Pentachlorophenol	0.1 U	0.1 U	0.1 U	0.1 U	ND	--	0.009 U	0.009 U	0.015 U	0.015 U	--	--	0.0074 U	ND	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.002 U	0.002 U	0.002 U	0.002 U	ND	0.01 U	0.0006 U	0.0006 U	0.0025 U	0.0025 U	0.012	0.003 U	0.00128 U	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.005 U
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	10/13/1992	4/20/1993	10/12/1993	10/12/1993 (Dup)	4/12/1994	10/11/1994	4/26/1995	10/25/1995	10/25/1995 (Dup)	2/21/1996	10/9/1996	3/26/1997	11/5/1997	8/23/2000	8/23/2000 (Dup)
SVOCs																				
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	--	--	--	--	--
2,4,6-Trichlorophenol	0.005 U	--	0.015 U	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.02 U	0.02 U
2,4-Dichlorophenol	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U	0.01 U
2,4-Dimethylphenol	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U	0.01 U
2,4-Dinitrophenol	0.01 U	--	0.015 U	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.05 U	0.05 U	0.05 U	0.05 U	0.01 U	0.05 U	0.05 U	0.052 U	0.05 U	0.05 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
2-Chlorophenol	0.005 U	--	0.015 U	0.015 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U	0.01 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
2-Methyl-4,6-dinitrophenol	0.01 U	--	0.015 U	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.031 U	0.05 U	0.05 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.01 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.015 U	0.015 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
4-Chloro-3-methylphenol	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U	0.01 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	0.01 U	--	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.02 U	0.021 U	0.025 U	0.025 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15 U	0.15 U
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17	7
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	0.02 U
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	0.0005 U	0.005 U	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
Pentachlorophenol	0.005 U	--	0.015 U	0.015 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.005 U	0.02 U	0.01 U	0.01 U	0.05 U	0.05 U
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Phenol	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U	0.01 U
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
SVOCs																						
1,2,4-Trichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
1,4-Dichlorobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2,4,5-Trichlorophenol	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2,4,6-Trichlorophenol	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2,4-Dichlorophenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 UJ	0.0097 U	0.0096 U	0.0097 U
2,4-Dimethylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2,4-Dinitrophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.049 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U
2,4-Dinitrotoluene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 UJ	0.0097 U	0.0096 U	0.0097 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
2,6-Dinitrotoluene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2-Chloronaphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2-Chlorophenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.02 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U
2-Methylnaphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 UJ	0.0048 U	0.0048 U	0.0048 U
2-Methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
2-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	--	--	0.019 U	0.019 U
2-Nitrophenol	--	--	0.015 U	0.015 U	0.015 U	--	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.0099 U	0.01 U	0.01 U	0.0006 UJ	0.0097 U	0.0096 U	0.0097 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	--	0.0096 U	--
3,3'-Dichlorobenzidine	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.019 U
3-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U
4-Bromophenyl phenyl ether	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
4-Chloro-3-methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
4-Chloroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	--	--	0.019 U	0.019 U
4-Chlorophenyl phenyl ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
4-Methylphenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	--	--	--	--	--	--	--	--	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
4-Nitroaniline	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.019 U	0.019 U
4-Nitrophenol	--	--	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.049 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U
Acenaphthene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Acenaphthylene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	0.02 U	0.02 U	0.009 U	0.019 U	0.019 U	0.019 U
Anthracene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Azobenzene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Benzo(b)fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0096 U	0.0097 U
Benzo(g,h,i)perylene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Benzo(k)fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	--	--	0.0006 U	0.0097 U	--	--
Benzoic acid	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.049 U	0.05 U	0.05 U	0.008 UJ	0.048 U	0.048 U	0.048 U
Benzyl alcohol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 UJ	0.0048 U	0.0048 U	0.0048 U
Bis(2-chloroethoxy)methane	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Bis(2-chloroethyl) ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Bis(2-chloroisopropyl) ether	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Bis(2-ethylhexyl) phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Butyl benzyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Dibenz(a,h)anthracene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Dibenzofuran	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Diethyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Dimethyl phthalate	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Di-n-butyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Di-n-octyl phthalate	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Fluoranthene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Fluorene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Hexachlorobenzene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Hexachlorobutadiene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Hexachlorocyclopentadiene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Hexachloroethane	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Isophorone	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 UJ	0.0097 U	0.0096 U	0.0097 U
Naphthalene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Nitrobenzene	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	U	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 UJ	0.0097 U	0.0096 U	0.0097 U
N-Nitrosodiphenylamine	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.03 U	0.03 U	0.03 U	0.009 UJ	0.029 U	0.029 U	0.029 U
Phenanthrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	0.005 U	0.0008 U	0.0048 U	0.0048 U	0.0048 U
Phenol	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 U	0.01 U	0.01 U	0.0006 U	0.0097 U	0.0096 U	0.0097 U
Pyrene	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0049 U	0.005 U	--	0.0008 U	0.0048 U	0.0048 U	0.0048 U

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	3/22/1985	4/8/1985	5/23/1985	6/6/1985	9/20/1985	7/24/1986	3/6/1987	3/6/1987 (Dup)	7/10/1987	7/10/1987 (Dup)	4/22/1988	4/22/1988 (Dup)	10/21/1988	4/18/1989	10/31/1989	10/31/1989 (Dup)	4/18/1990	11/16/1990	11/16/1990 (Dup)	5/6/1991
VOCs[3]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	1 U	1 U	1 U	1 U	--
1,1,1-Trichloroethane	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0002 U	0.0002 U	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
1,1,2,2-Tetrachloroethane	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0004 U	0.0004 U	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
1,1,2-Trichloroethane	0.0001 U	0.0001 U	0.00002 U	0.00002 U	ND	0.0001 U	0.0001 U	0.0001 U	0.000015 U	0.000015 U	0.00002 U	--	0.00002 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,1-Dichloroethane	0.0001 U	0.0001 U	0.00007 U	0.00007 U	ND	0.0001 U	0.0004 U	0.0004 U	0.000015 U	0.000015 U	0.00007 U	--	0.00007 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
1,1-Dichloroethene	0.0001 U	0.0001 U	0.00013 U	0.00013 U	ND	0.0001 U	--	--	0.000015 U	0.000015 U	0.00013 U	--	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0005 U	0.0005 U	0.00015 U	0.00015 U	ND	0.0001 U	--	--	0.00007 U	0.00007 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
1,2-Dichloroethane	0.0001 U	0.0001 U	0.00003 U	0.00003 U	ND	0.0001 U	0.0002 U	0.0002 U	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
1,2-Dichloropropane	0.0001 U	0.0001 U	0.00004 U	0.00004 U	ND	0.0001 U	0.0002 U	0.0002 U	0.000015 U	0.000015 U	0.00004 U	--	0.00004 U	0.0005 U	--	--	--	--	--	0.0005 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0005 U	0.0005 U	0.00032 U	0.00032 U	ND	0.0001 U	--	--	0.00005 U	0.00005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
1,4-Dichlorobenzene	0.0005 U	0.0005 U	0.00024 U	0.00024 U	ND	0.0001 U	--	--	0.00005 U	0.00005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	0.00013 U	0.00013 U	ND	0.0001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.00013 U	--	0.00013 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	0.0002 U	0.0065 U	0.0065 U	0.0008 U	0.0008 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Bromodichloromethane	0.00005 U	0.00005 U	0.0001 U	0.0001 U	ND	0.0001 U	--	--	0.000015 U	0.000015 U	0.0001 U	--	0.0001 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Bromoform	0.0001 U	0.0001 U	0.0002 U	0.0002 U	ND	0.0001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Bromomethane	--	--	0.00118 U	0.00118 U	ND	0.0001 U	--	--	0.0005 U	--	0.00118 U	--	0.00118 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.00005 U	0.00005 U	0.00012 U	0.00012 U	ND	0.0001 U	0.0001 U	0.0001 U	0.000015 U	0.000015 U	0.00012 U	--	0.00012 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Chlorobenzene	0.0005 U	0.0005 U	0.00025 U	0.00025 U	ND	0.0001 U	0.0003 U	0.0003 U	0.00002 U	0.00002 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	--	--	0.001 U	0.0002 U
Chloroethane	--	--	0.00052 U	0.00052 U	ND	0.0001 U	0.0006 U	0.0006 U	0.000015 U	0.000015 U	0.00052 U	--	0.00052 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform	0.00005 U	0.00005 U	0.00005 U	0.00005 U	ND	0.0001 U	0.0002 U	0.0002 U	0.000005 U	0.000005 U	0.00005 U	--	0.00005 U	0.0005 U	0.001 U	0.001 U	0.003	0.001 U	0.001 U	0.0002 U
Chloromethane	--	--	0.00008 U	0.00008 U	ND	0.0001 U	--	--	0.00002 U	0.00002 U	0.00008 U	--	0.00008 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
cis-1,3-Dichloropropene	0.0001 U	0.0001 U	0.0002 U	0.0002 U	ND	0.0001 U	--	--	0.000015 U	0.000015 U	0.0002 U	--	0.0002 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Dibromochloromethane	0.0001 U	0.0001 U	0.00009 U	0.00009 U	ND	0.0001 U	--	--	0.000015 U	0.000015 U	0.00009 U	--	0.00009 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	0.0014 U	0.0014 U	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	0.00181 U	0.00181 U	ND	0.0001 U	--	--	0.0005 U	--	0.00181 U	--	0.00181 U	0.0005 U	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	0.0002 U	0.0095 U	0.0095 U	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	0.0005 U	0.0005 U	0.00025 U	0.00024	0.00107	0.0001 U	0.0003 U	0.0003 U	0.00008	0.0001	0.00025 U	--	0.00025 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U
m-Xylene	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	0.0002 U	--	0.0002 U	ND	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--
Tetrachloroethene	0.00005 U	0.00005 U	0.00003 U	0.00003 U	ND	0.0001 U	--	--	0.000015 U	0.000015 U	0.00003 U	--	0.00003 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Toluene	--	--	--	--	--	0.0002 U	0.0067 U	0.0067 U	0.0005 U	0.0005 U	0.0002 U	--	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	0.0005 U	--	--	--	--	--	--
trans-1,2-Dichloroethene	0.0001 U	0.0001 U	0.0001 U	0.0001 U	ND	0.0001 U	0.0004 U	0.0004 U	0.000015 U	0.000015 U	0.0001 U	--	0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
trans-1,3-Dichloropropene	0.0002 U	0.0002 U	0.00034 U	0.00034 U	ND	0.0001 U	--	--	0.00003 U	0.00003 U	0.00034 U	--	0.00034 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.00005 U	0.00005 U	0.00012 U	0.00012 U	ND	0.0001 U	0.0001 U	0.0001 U	0.000005 U	0.000005 U	0.00012 U	--	0.00012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Trichlorofluoromethane (Freon 11)	0.0005 U	0.0005 U	ND	ND	ND	0.0001 U	0.0003 U	0.0003 U	0.000015 U	0.000015 U	0.0005 U	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	0.00018 U	0.00018 U	ND	0.0001 U	--	--	0.00025 U	0.00025 U	0.00018 U	--	0.00018 U	0.0003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Xylenes, total	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	10/13/1992	4/20/1993	10/12/1993	10/12/1993 (Dup)	4/12/1994	10/11/1994	4/26/1995	10/25/1995	10/25/1995 (Dup)	2/21/1996	10/9/1996	3/26/1997	11/5/1997	8/23/2000	8/23/2000 (Dup)
VOCs[3]																				
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,1,2,2-Tetrachloroethane	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,1,2-Trichloroethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,1-Dichloroethene	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,2-Dichloroethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,2-Dichloropropane	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
2-Chloroethyl vinyl ether	--	--	0.005 U	0.0005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	--	0.001 U	--	--	--	0.005 U	0.005 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Bromoform	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Bromomethane	--	--	0.001 U	0.001 U	ND	ND	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Chlorobenzene	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Chloroethane	--	--	0.001 U	0.001 U	ND	ND	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Chloroform	--	--	0.0002 U	0.0058	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Chloromethane	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Dibromochloromethane	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.005 U	0.0005 U	0.005 U	0.005 U	--	--	--
Ethylbenzene	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--	--	0.001 U	--	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Methylene chloride	--	--	0.002 U	0.002 U	0.025	0.0034	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.002 U	0.01 U	0.01 U	--	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Toluene	--	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
trans-1,3-Dichloropropene	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U
Vinyl chloride	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.002 U	0.002 U	--	0.001 U	0.001 U
Xylenes, total	--	--	--	--	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	--

TABLE H-4

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-4[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	10/12/2005	4/12/2006	10/11/2006	10/11/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
VOCs[3]																						
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	0.005 U	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
m-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
o,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dichloroethenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at reporting limit indicated; reporting limit is estimated.
2. VOCs by EPA Method 524.2.
3. VOCs by EPA Method 8260 or by other unspecified method.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone
PCBs = polychlorinated biphenyls
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	4/21/1992 (Dup)	10/13/1992	4/20/1993	10/12/1993	4/12/1994	4/12/1994 (Dup)	10/11/1994	4/26/1995	10/25/1995	2/21/1996	2/21/1996 (Dup)	10/9/1996	3/26/1997	11/5/1997	8/23/2000
Conventionals																					
Chloride (Cl^-)	10	--	--	6	--	6.8	6.8	6.3	6.8	8	8	9	7.9	7.1	6.4	6.5	6.4	6.7	7.1	8.9	--
Sulfate (SO_4)	1 U	--	--	4	--	4.6	4.6	4.2	5.1	6	6	6	5.1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	--
VOCs[2]																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	4.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2,2-Tetrachloroethane	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1,2-Trichloroethane	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethane	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloroethene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,2-Dichlorobenzene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloroethane	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,2-Dichloropropane	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,3-Dichlorobenzene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
1,4-Dichlorobenzene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Benzene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Bromodichloromethane	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromoform	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Bromomethane	--	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.005 U
Carbon tetrachloride	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chlorobenzene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroethane	--	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloroform	--	--	--	6.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Chloromethane	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
cis-1,3-Dichloropropene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromochloromethane	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.001 U
Ethylbenzene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	--	--	--	0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	0.002 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
o-Xylene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Tetrachloroethene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Toluene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,2-Dichloroethene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
trans-1,3-Dichloropropene	--	--	--	0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichloroethene	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trichlorofluoromethane (Freon 11)	--	--	--	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	0.001 U
Trihalomethanes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	0.0002 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	4/12/2006	11/7/2006	11/7/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Conventionals																						
Chloride (Cl^-)	--	5 U	5 U	7.2	6.9	6.2	--	7.1	6.1	6	6.7	--	7.1	6.7	6.7	5.9	5.8	6.3	5.7	5.7	6.5	6.2
Sulfate (SO_4)	--	25 U	25 U	3.4	5.1	4.9	--	4.3	5.2	5.1	4.3	--	4	2.5	2.6	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
VOCs[2]																						
1,1,1,2-Tetrachloroethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,1-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2,2-Tetrachloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1,2-Trichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,1-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichlorobenzene	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,3-Trichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trichlorobenzene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2,4-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dibromo-3-chloropropane	--	--	--	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.001 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3,5-Trimethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,3-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
1,4-Dichlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2,2-Dichloropropane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
2-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Chlorotoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
4-Isopropyltoluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Benzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.00054	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromodichloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromoform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Bromomethane	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
Carbon tetrachloride	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chlorobenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloroform	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Chloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
cis-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
cis-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromochloromethane	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dibromomethane	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Dichlorodifluoromethane (Freon 12)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Ethylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Hexachlorobutadiene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Isopropylbenzene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
m,p-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	--	--	--	--	--	--	--
Methylene chloride	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
Naphthalene	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
n-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 UJ	0.0005 U	0.0005 U	0.0005 U
n-Propylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
o-Xylene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--	--	--	--	--
sec-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Styrene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
tert-Butylbenzene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Tetrachloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Toluene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0054	0.0026	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,2-Dichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
trans-1,3-Dichloropropene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichloroethene	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trichlorofluoromethane (Freon 11)	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Trihalomethanes, total	--	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	0.002 U	0.002 U	--	--	0.0005 U	0.0005 U
Vinyl chloride	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U
Xylenes, total	--	--	--	--	--	--	--	--	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0015 U	0.0015 U	--	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	4/21/1992 (Dup)	10/13/1992	4/20/1993	10/12/1993	4/12/1994	4/12/1994 (Dup)	10/11/1994	4/26/1995	10/25/1995	2/21/1996	2/21/1996 (Dup)	10/9/1996	3/26/1997	11/5/1997	8/23/2000
Metals/Inorganics																					
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.1	--	--
Manganese (Mn)	0.3	--	--	0.52	--	0.71	0.72	0.75	0.88	0.7	0.6	0.62	0.49	0.45	0.4	0.28	0.35	0.19	--	0.09	--
Sodium (Na)	44	--	--	31	--	41	54	38	30.1	28.5	40	39	32.7	28.6	16.6	34.5	36.5	35.8	26	33	--
Pesticides/PCBs																					
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDE	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
4,4'-DDT	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Aldrin	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-BHC	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Aroclor 1016	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1221	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1232	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1242	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1248	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1254	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
Aroclor 1260	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U
beta-BHC	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Chlordane	0.001 U	--	0.001 U	0.001 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
delta-BHC	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Dieldrin	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan I	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Endosulfan II	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endosulfan sulfate	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin aldehyde	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
gamma-BHC	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00005 U
Heptachlor	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Heptachlor epoxide	0.0001 U	--	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U
Methoxychlor	0.0005 U	--	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00005 U	0.00005 U	0.0001 U	0.0001 U	0.0001 U	0.0005 U
Toxaphene	0.001 U	--	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	4/12/2006	11/7/2006	11/7/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Metals/Inorganics																						
Magnesium (Mg)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese (Mn)	--	0.046	0.046	0.24	0.24	0.21	--	0.1	0.1	0.16	0.14	--	0.18	0.14	0.13	0.11	0.15	0.11	0.083	0.073	0.1	0.12
Sodium (Na)	--	35	35	30	31	32	--	34	36	33	38	--	32	32	34	34	35	34	30	31	34	31
Pesticides/PCBs																						
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000096 UJ	0.000096 U	--	--
4,4'-DDD	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
4,4'-DDE	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
4,4'-DDT	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	--	--	0.000099 U	0.000096 U
Aldrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
alpha-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
alpha-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Aroclor 1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Chlordane	--	--	--	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	0.0005 U	0.0005 U	--	0.000096 U	--	--	--	--	--	--
Chlordane, technical	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Dieldrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Endosulfan I	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Endosulfan II	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Endosulfan sulfate	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Endrin	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 UJ	0.000096 U	0.000099 U	0.000096 U
Endrin aldehyde	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Endrin ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
gamma-BHC	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
gamma-Chlordane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Heptachlor	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Heptachlor epoxide	--	--	--	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	0.00005 U	0.00005 U	--	0.00005 U	0.00005 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000099 U	0.000096 U
Methoxychlor	--	--	--	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	0.0001 U	0.0001 U	--	0.0001 U	0.0001 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 UJ	0.000096 U	0.000099 U	0.000096 U
Toxaphene	--	--	--	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	0.001 U	0.001 U	--	0.001 U	0.001 U	--	0.000096 U	0.0001 U	0.0001 U	0.000096 U	0.000096 U	0.000000099 U	0.000000096 U

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	4/21/1992 (Dup)	10/13/1992	4/20/1993	10/12/1993	4/12/1994	4/12/1994 (Dup)	10/11/1994	4/26/1995	10/25/1995	2/21/1996	2/21/1996 (Dup)	10/9/1996	3/26/1997	11/5/1997	8/23/2000
Semivolatile Organic Compounds																					
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	0.003 U	--	--	--	--
2,4,6-Trichlorophenol	0.005 U	0.005 U	--	0.015 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.003 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.02 U
2,4-Dichlorophenol	0.005 U	0.005 U	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.003 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dimethylphenol	0.005 U	0.005 U	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.01 U
2,4-Dinitrophenol	0.01 U	0.01 U	--	0.015 U	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.05 U	0.05 U	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.052 U	0.05 U
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
2-Chlorophenol	0.005 U	0.005 U	--	0.015 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.003 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Methyl-4,6-dinitrophenol	0.01 U	0.01 U	--	0.015 U	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.031 U	0.05 U
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	0.003 U	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	0.01 U	0.01 U	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0052 U	0.015 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
3-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
4-Chloro-3-methylphenol	0.005 U	0.005 U	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.003 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
4-Chloroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
4-Methylphenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.003 U	0.003 U	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	0.01 U	0.01 U	--	0.01 U	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U	0.005 U	0.005 U	0.02 U	0.02 U	0.021 U	0.025 U
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Azobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15 U
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Benzoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroethyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-chloroisopropyl) ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Bis(2-ethylhexyl) phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17
Butyl benzyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenz(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Dimethyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U
Di-n-butyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Di-n-octyl phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Isophorone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
Nitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	0.0005 U	--	--	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--
Pentachlorophenol	0.005 U	0.005 U	--	0.015 U	--	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U	0.005 U	0.005 U	0.02 U	0.01 U	0.01 U	0.05 U
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Phenol	0.005 U	0.005 U	--	0.005 U	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.005 U	0.005 U	0.003 U	0.003 U	0.005 U	0.005 U	0.0052 U	0.01 U
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	4/12/2006	11/7/2006	11/7/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Semivolatile Organic Compounds																						
1,2,4-Trichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
1,2-Diphenylhydrazine (as azobenzene)	--	--	--	--	--	--	--	--	--	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
1,4-Dichlorobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
2,4,5-Trichlorophenol	--	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2,4,6-Trichlorophenol	--	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2,4-Dichlorophenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
2,4-Dimethylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2,4-Dinitrophenol	--	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.049 U	0.049 U	0.05 U
2,4-Dinitrotoluene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
2,6-Dichlorophenol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2-Chloronaphthalene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2-Chlorophenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2-Hexanone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol	--	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.02 U	0.02 U
2-Methylnaphthalene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
2-Methylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
2-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	--	--	0.02 U	0.02 U
2-Nitrophenol	--	--	--	0.015 U	0.015 U	0.015 U	--	0.015 U	0.015 U	0.015 U	0.015 U	--	0.015 U	0.015 U	0.015 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
3- and 4-Methylphenol	--	--	--	--	--	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	--	--	--	--	--	0.0098 U	--
3,3´-Dichlorobenzidine	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.02 U	0.02 U
3-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.02 U	0.02 U
4-Bromophenyl phenyl ether	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
4-Chloro-3-methylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
4-Chloroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	--	--	0.02 U	0.02 U
4-Chlorophenyl phenyl ether	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
4-Methylphenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	--	--	--	--	--	--	--	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
4-Nitroaniline	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.019 U	0.02 U	0.02 U	0.009 UJ	0.019 U	0.02 U	0.02 U
4-Nitrophenol	--	--	--	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.049 U	0.049 U	0.05 U
Acenaphthene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Acenaphthylene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Aniline	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.019 U	0.02 U	0.02 U	0.009 U	0.019 U	0.02 U	0.02 U
Anthracene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Azobenzene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Benzidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Benzo(b)fluoranthene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	--	--	--	--
Benzo[b,k]fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0098 U	0.01 U
Benzo(g,h,i)perylene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Benzo(k)fluoranthene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	--	--	0.0005 U	0.0097 U	--	--
Benzoic acid	--	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.025 U	--	0.025 U	0.025 U	0.025 U	0.048 U	0.05 U	0.05 U	0.008 UJ	0.049 U	0.049 U	0.05 U
Benzyl alcohol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 UJ	0.0049 U	0.0049 U	0.005 U
Bis(2-chloroethoxy)methane	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Bis(2-chloroethyl) ether	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Bis(2-chloroisopropyl) ether	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Bis(2-ethylhexyl) phthalate	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.005 U	--	0.005 U	0.005 U	0.005 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Butyl benzyl phthalate	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Chloronaphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Dibenz(a,h)anthracene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Dibenzofuran	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Diethyl phthalate	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Dimethyl phthalate	--	--	--	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.02 U	--	0.02 U	0.02 U	0.02 U	0.0096 U	--	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Di-n-butyl phthalate	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Di-n-octyl phthalate	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Fluoranthene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Fluorene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Hexachlorobenzene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Hexachlorobutadiene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Hexachlorocyclopentadiene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Hexachloroethane	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Hexachlorophene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
Hexachloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Isophorone	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
Naphthalene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Nitrobenzene	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
N-Nitrosodiethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0048 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
N-Nitroso-di-n-butylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 UJ	0.0097 U	0.0098 U	0.01 U
N-Nitrosodiphenylamine	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
N-Nitrosomethylethylamine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.05 U	--	0.05 U	0.05 U	0.05 U	0.029 U	0.03 U	0.03 U	0.009 UJ	0.029 U	0.029 U	0.03 U
Phenanthrene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U
Phenol	--	--	--	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0096 U	0.01 U	0.01 U	0.0005 U	0.0097 U	0.0098 U	0.01 U
Pyrene	--	--	--	0.005 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.01 U	--	0.01 U	0.01 U	0.01 U	0.0048 U	0.005 U	0.005 U	0.0008 U	0.0049 U	0.0049 U	0.005 U

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	5/6/1991	5/10/1991	10/28/1991	10/29/1991	10/29/1991 (Dup)	4/21/1992	4/21/1992 (Dup)	10/13/1992	4/20/1993	10/12/1993	4/12/1994	4/12/1994 (Dup)	10/11/1994	4/26/1995	10/25/1995	2/21/1996	2/21/1996 (Dup)	10/9/1996	3/26/1997	11/5/1997	8/23/2000
Volatile Organic Compounds																					
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2,2-Tetrachloroethane	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2-Trichloroethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,1-Dichloroethene	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,2-Dichloroethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,2-Dichloropropane	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0005 U	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
2-Chloroethyl vinyl ether	0.0005 U	--	--	0.0005 U	0.0005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--	0.001 U	0.001 U	--	--	--	0.005 U
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Bromoform	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Bromomethane	0.001 U	--	--	0.001 U	0.001 U	ND	ND	ND	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Chlorobenzene	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Chloroethane	0.001 U	--	--	0.001 U	0.001 U	ND	ND	ND	ND	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Chloroform	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Chloromethane	0.0005 U	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	0.0005 U	--	--	--	--
cis-1,3-Dichloropropene	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Dibromochloromethane	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
Ethylbenzene	0.0005 U	--	--	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	0.0005 U	--	--	0.0005 U	0.0005 U	--	--	--	--	--	--	--	--	--	--	0.001 U	0.001 U	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Methylene chloride	0.002 U	--	--	0.002 U	0.002 U	0.0069	0.027	0.0035	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.002 U	0.002 U	0.01 U	0.01 U	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Toluene	0.0002 U	--	--	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
trans-1,2-Dichloroethene	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
trans-1,3-Dichloropropene	0.0005 U	--	--	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Trichlorofluoromethane (Freon 11)	0.001 U	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	--
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U
Vinyl chloride	0.0002 U	--	--	0.0002 U	0.0002 U	0.0005 U	0.0005 U	0.0005 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0005 U	0.0005 U	0.002 U	0.002 U	--	0.001 U
Xylenes, total	--	--	--	--	--	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--

TABLE H-5

HISTORICAL GROUNDWATER ANALYTICAL RESULTS FOR MW-5[1]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per liter (mg/L)

Analyte / Sample Date	8/23/2000 (Dup)	10/26/2001	10/26/2001 (Dup)	4/23/2003	10/22/2003	4/21/2004	5/5/2004	10/13/2004	4/13/2005	4/12/2006	11/7/2006	11/7/2006 (Dup)	4/11/2007	10/24/2007	10/24/2007 (Dup)	10/22/2008	4/8/2009	10/14/2009	4/14/2010	10/13/2010	4/20/2011	10/18/2011
Volatile Organic Compounds																						
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,1-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2,3,5-Tetrachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
1,2,3-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2-Butanone (MEK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
2-Chloroethyl vinyl ether	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
4-Chlorotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
4-Methyl-2-pentanone (MIBK)	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Acetone	0.005 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Acrylonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Carbon disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Carbon tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Dichlorodifluoromethane (Freon 12)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.005 U	--	0.005 U	--	--	--	--
Iodomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Methyl tert-butyl ether	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	--	0.001 U	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.002 U	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.0005 U	--	--	--	--
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--	0.002 U	--	--	--	--
trans-1,4-Dichloro-2-butene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Trichlorofluoromethane (Freon 11)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Vinyl acetate	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01 U	--	0.01 U	--	--	--	--
Vinyl chloride	0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0005 U	--	0.0005 U	--	--	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at reporting limit indicated; reporting limit is estimated.
2. VOCs by EPA Method 524.2.
3. VOCs by EPA Method 8260 or by other unspecified method.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone
PCBs = polychlorinated biphenyls
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

April 27, 2012
Revision Draft

APPENDIX G-2

POST-CLOSURE PERIOD EGDMP

APPENDIX G-2 (Application APPENDIX B)

POST-CLOSURE PERIOD EXPANDED GROUNDWATER DETECTION MONITORING PLAN

POST-CLOSURE PERIOD EXPANDED GROUNDWATER DETECTION MONITORING PLAN

Page-Trowbridge Ranch Landfill

Pinal County, Arizona

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Project No. 1420112012

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REGISTERED GEOLOGIST
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Date Signed 7/12/12
ARIZONA, U.S.A.

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(Continued)

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POST-CLOSURE PERIOD
EXPANDED GROUNDWATER DETECTION
MONITORING PLAN

Page-Trowbridge Ranch Landfill
Pinal County, Arizona

1. INTRODUCTION

1.1 GENERAL

This Expanded Groundwater Detection Monitoring Plan (EGDMP) outlines the sampling and analysis procedures that will be utilized during the post-closure period at the Page-Trowbridge Ranch Landfill (PTRL) in Pinal County, Arizona (Figure 1). The EGDMP was originally prepared by Hydro Geo Chem, Inc. (HGC) on October 13, 2004, and has been revised by AMEC Earth & Environmental, Inc. (AMEC). All groundwater and soil vapor samples will be collected by personnel of the University of Arizona (UA) Department of Risk Management Services or their designee.

1.2 EXPANDED GROUNDWATER MONITORING SYSTEM

The Post-Closure Permit included a component to expand the existing monitoring network to off-site locations. Property immediately adjacent to the PTRL to the west and south (downgradient of the site) is owned by Robson Communities (Robson). Robson would not agree to allow monitoring wells to be installed on their property. Although they have agreed to permit access to the Robson Irrigation Well #1 (Arizona Department of Water Resources number 55-595243), this well was not added to the monitoring network because:

- This well is not located directly downgradient of the facility;
- This well is screened over multiple depths that do not correspond to those of the on-site monitoring wells;
- This well is not designed for sample collection as purging cannot be controlled; and
- Chemicals potentially used by the well owner to clean the well and pump cannot be controlled by UA.

Interim Measures Investigations (IMI; HGC, 2004) indicate that soil vapor concentrations decrease rapidly with depth below the PTRL and at the deepest sampling point (approximately 40 feet [ft] above the groundwater table), soil vapor concentrations are too low to cause groundwater concentrations that exceed water quality standards (U.S. Environmental Protection Agency [EPA] maximum contaminant levels or Arizona aquifer water quality standards), in agreement with existing groundwater sampling results. Estimated groundwater concentrations in equilibrium with soil vapor

concentrations are between 1/50th and 1/700th of water quality standards. The existing soil vapor extraction (SVE) system and on-site soil vapor monitoring points are used to supplement existing groundwater monitoring wells. Incorporation of on-site soil vapor monitoring through the SVE system and soil vapor monitoring points will allow early detection of increasing vapor concentrations, allowing mitigation to be conducted prior to creating an impact to groundwater below the PTRL site.

The expanded groundwater monitoring system at the PTRL consists of groundwater monitoring and soil vapor sampling. Groundwater monitoring consists of collecting groundwater samples from four groundwater monitoring wells (MW-2, MW-3, MW-4, and MW-5). Soil vapor sampling consists of collecting soil vapor samples from MW-2 and MW-5, collecting soil vapor samples from soil vapor monitoring wells (SGS-SP, SGS-Well, SGD-SP, SGD-MP, SGD-DP, and SGD-Well), and monitoring the SVE system influent when the SVE system is in operation. Monitoring locations are shown on Figure 1 and well construction details are summarized in Tables 1 and 2. A complete description of the on-site monitoring well system is contained in the following reports:

- May 17, 1985 Memorandum Data Report from Errol L. Montgomery & Associates, Inc., titled, "Results of Monitor Well Construction, Monitor Wells, MW-1, MW-2, MW-3, and MW-4, Page Trowbridge Ranch Disposal Facility, Pinal County, Arizona";
- August 20, 1991 report by Environmental Engineering Consultants, Inc, titled, "Page Ranch Replacement Well, Monitoring Well MW-5"; and
- June 8, 2004 report by HGC, titled, "Interim Measures Investigation Report".

1.3 Sampling Frequency, Analyses, and Field Measurements

1.3.1 Sampling Frequency

Groundwater and soil vapor samples will be collected semi-annually, typically in the spring and fall, in accordance with the requirements of the Post-Closure Permit. SVE influent will be sampled when the SVE system is in operation at a frequency no less than twice annually, which may be adjusted as needed to guide timing of carbon change out events.

1.3.2 Groundwater Sampling

Groundwater samples are collected from four groundwater monitoring wells (MW-2, MW-3, MW-4, and MW-5). Groundwater from each monitoring well will be pumped to the surface using a dedicated five-horsepower submersible pump. Power must be supplied by a generator (480 volt, three-phase) from off-site. A power panel consisting of breaker and fuse box is shared by the four wells. The power panel is moved from well to well during sampling, and is stored off-site when not in use. A locked vandal cover is installed over each wellhead. An electrical harness assembly is installed at each

wellhead for connection to the generator. The discharge pipe connection point and the sounder tube are also located inside the vandal cover.

1.3.3 Soil Vapor Sampling

Soil vapor samples are collected from two groundwater monitoring wells (MW-2 and MW-5) and six soil vapor monitoring points: SGS-Well, SGD-Well, SGS-SP, SGD-SP, SGD-MP, and SGD-DP. Groundwater monitoring wells MW-2 and MW-5 have been equipped with downhole inflatable packers that are used to isolate the screened interval above the water table and thus enable these wells to be used as soil vapor sampling points. SGD-Well will not be sampled if this well is used for air injection. Otherwise, soil vapor samples will be collected from MW-2, MW-5, and all six soil vapor monitoring points.

The soil vapor probes and wells will be purged using a portable vacuum pump. The vacuum pump operates on battery power. The sampling ports will be equipped with shut-off (ball) valves and hose barbs. The sample port will provide an air-tight connection to both the purge pump and the sample canister. For the soil vapor probes, all of the fittings will be sealed in the protective casing with a locking cover at the wellhead. For the soil vapor wells, the fittings will be sealed in a below-ground vault with locking cover.

1.3.4 Sample Analyses

Groundwater samples are analyzed for drinking water parameters, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and organochlorine pesticides using the following analytical methods as specified in the Post-Closure Permit:

- Drinking water parameters:
    - Manganese (Mn): EPA Method 200.7
    - Sodium (Na): EPA Method 200.7
    - Chloride (Cl): EPA Method 300.0
    - Sulfate (SO4): EPA Method 300.0
- Volatile organic compounds (VOCs): EPA Method 524.2
- Semi-volatile organic compounds (SVOCs): EPA Method 8270C
- Organochlorine pesticides: EPA Method 8081

Groundwater samples will also be analyzed for radionuclides in accordance with Arizona Radiation Regulatory Agency (ARRA) Radioactive Material License 10-24.

Soil vapor samples will be analyzed for VOCs using EPA Method TO-15. Analytical laboratories conducting the analyses will be licensed by the State of Arizona Environmental Laboratory Licensure Program.

1.3.5 Field Measurements

Depth-to-water measurements will be taken prior to purging the groundwater monitoring wells. During the groundwater purge period, the following field measurements will also be performed:

- pH
- Temperature
- Specific conductance
- Visual appearance

During purging of the soil vapor probes, a portable photoionization detector (PID) will be used to monitor total organic vapors. Purging will continue until organic vapor readings are stable prior to sample collection, typically between 3 and 5 well volumes. If concentrations are too low to be detected by PID, a minimum purging volume of 3 well volumes will be used.

1.4 Groundwater Monitoring System Inspection and Maintenance

Details concerning the inspections and maintenance of the groundwater monitoring system as required by Part IV of the Post-Closure Permit are contained in the Page Ranch Landfill Post-Closure Inspection and Maintenance Plan. This document appears as Appendix D to the permit application.

2. SAMPLING TRIP PREPARATION

Prior to going to the site to collect samples, several preparatory steps are required. These include gathering and calibrating equipment, obtaining sample containers from a laboratory, and laboratory scheduling.

2.1 Groundwater Sampling Trip Preparation

2.1.1 Equipment List

Sampling Equipment:

- PTRL gate/well keys/spare lock/chain/bolt cutters;
- Pickup truck with towing ball;

- Generator (480-volt, three-phase, 15 or 18 kilowatt) with enough fuel for at least 12 hours of operation (rented from a vendor in Tucson) and an 110-volt outlet if used to power vacuum pump;
- Connecting wire, three conductor;
- Tool box to include: crescent and pipe wrenches, screwdrivers, electrical tape, wire cutters, and heavy gloves;
- Horizontal discharge pipe with flow meter and support block;
- Calibrated water depth-sounder;
- Engineer's steel measuring tape marked in 0.01-ft increments;
- Wristwatch with stopwatch;
- 3- to 5-gallon (gal) polyethylene bucket;
- Pocket calculator;
- pH/temperature meter with spare batteries;
- Squirt bottle with distilled water;
- Fresh buffer solutions for pH meter calibration;
- Specific conductance meter;
- Sample containers for all parameters and duplicates;
- Vacuum pump (portable or 110-volt);
- Rotameter (gas flow meter);
- Portable organic vapor monitor (PID) with 11.7 eV lamp;
- Preservatives in containers (as required);
- Field blanks;
- Latex examination gloves;
- Sampling data log book/spare sampling log sheets;
- Chain-of-custody forms;
- Field copy of groundwater detection monitoring plan;
- Pencils and waterproof markers;
- Sample labels/clear waterproof tape; and
- Cooler and ice.

2.1.2 Sample Containers/Trip Blanks

Each sample will be collected in pre-cleaned, appropriately sized containers prepared by the laboratory. Sample containers will not be reused. The type of container used for each parameter will be consistent with the requirements of the EPA Analytical Method for that particular parameter. Sample containers for VOC analyses must have a Teflon-lined cap and must be new. Chemical preservatives required by the analytical method are placed in the sample containers by the laboratory; preservatives to be used for each sampled parameter are summarized in Table 3.

Trip blank containers are prepared by the laboratory in the same manner as the sample containers prior to filling them with the blank material. This blank material would consist of organic-free laboratory water in the case of groundwater samples. A trip blank is required for groundwater VOC analyses to verify if any detected contamination in the sample is an actual groundwater contaminant or the result of contamination during handling, storage, or transport. To be considered a valid blank, the trip blank must be carried into the field and handled in precisely the same manner as the sample containers, but without discharged groundwater contact.

2.2 Soil Vapor Sampling Trip Preparation

2.2.1 Equipment List

The collection of soil vapor samples from permanent sample points requires the use of reusable equipment, disposable materials, and field documentation forms. The following equipment is reusable.

- Vacuum pump.
- Six stainless steel ¼-inch hose barbs with nuts.
- Two adjustable crescent wrenches.
- A box cutter, knife, or other cutting tool for cutting plastic tubing.
- 1 can of leak detection compound, for example Dust Remover (by 3M) that contains 1,1-difluoroethane as an ingredient.
- Sealable plastic baggies – gallon size.
- Watch to monitor purge times.
- Air pump with pressure gauge for packers.

The following materials are for single use and should be discarded after use:

- Approximately 20 feet of 3/8-inch outside diameter, ¼-inch inside diameter clear polyethylene tubing.

- Clean cloth rags (have not been used previously).
- Small plastic zip ties.

2.2.2 Sample Containers/Trip Blanks

Prior to sampling, sample containers, flow controllers, vacuum gauge, and duplicate tees will be ordered from the laboratory. Upon receipt of order and at least one day prior to field sampling, the sample containers will be checked for integrity as instructed by the laboratory. For Summa canisters, the vacuum in each canister will be checked with a vacuum gauge supplied by the laboratory.

1. Attach gauge to the top of the canister, ensuring the seal is tight (the gauge should not wiggle or otherwise move if tightened properly).
2. Open valve on canister completely and note vacuum reading (generally inches Mercury [in Hg]) on label card attached to the canister. Typically the canister holds 30 in Hg and a good canister will have a reading between 26 in Hg and 30 in Hg.
3. If the vacuum is less than 20 in Hg, set the canister aside and order another canister from the lab. Place loose hose barbs with nuts on baking sheet and bake in oven at 350° for 30 minutes to decontaminate the barbs. Allow barbs to cool and place in sealable plastic bag.

2.3 Laboratory Scheduling

The analytical laboratory will be consulted prior to sampling to ensure that adequate cold storage space will be available for those samples requiring it, and that their analysis schedule will permit timely analysis within specified holding times. The laboratory will be provided with a list of all analytical parameters, so that equipment and/or reagents necessary for particular analytical methods are available, when needed.

2.4 Calibration and Equipment Checks

Several types of equipment used in the sample collection process require calibration as follows:

- The sounder's battery and cable can be checked by watching the indicator needle for movement while the probe is held in a cup of water. The needle should hold steady at full conductance during this test. If the needle begins to fade after several seconds, the battery is most likely weak.
- The pH/temperature meter has no low battery indication, so spare batteries are always carried.
- The pH buffer solutions are changed prior to every use, so that the pH probe can be accurately standardized.
- The specific conductance meter is zeroed with deionized water prior to each field use.
- The PID will be calibrated to an isobutylene standard each day.

3. SAMPLING PROCEDURES

3.1 INTRODUCTION

This section outlines in detail the actual process of sample collection so that methods and techniques are consistent, thereby ensuring that sampling results are valid representations of groundwater quality and soil vapor chemistry. Sampling procedures are discussed below. Soil vapor samples will be collected first, followed by groundwater depth determination and groundwater sample collection.

3.2 GROUNDWATER SAMPLING PROCEDURES

3.2.1 Groundwater Depth Determination

Prior to purging or pumping the on-site monitoring wells, the depth to groundwater must be determined in the four operative on-site wells. The sounder is tested at the surface in a cup of water prior to lowering it down the well. Once proper function is verified, the sounder cable is slowly lowered into the polyvinyl chloride sounder tube, which is installed parallel to the discharge pipe in the well casing. When the water level is reached, the indicator needle will peg to the right, indicating conductance through the cable. The cable should be pulled up several feet and then lowered again to verify that the water level has indeed been reached. When pulled up, the needle will drop off and then peg again upon being lowered to the surface of the groundwater. The sounder cable should be lowered just until the needle pegs, and no lower.

The measurement point at all wells is the top of the opening into the sounder cable tube. The elevation of this water measurement point has been established by a licensed surveyor (Table 1). When the probe is at the surface of the water, a thumbnail should be placed against the cable at the top of the sounder tube to lock its position for measurement. While holding the thumbnail against the measurement point on the cable, the cable is pulled up several feet until one of the calibrated cable markings is above the sounder tube opening.

Using an engineer's steel pocket tape, the distance between the measurement point and closest calibrated cable marking is measured to the nearest 0.01 ft. The measured value is then added to or subtracted from the calibrated cable marking to determine depth to groundwater. If applicable, a sounder calibration value must be added or subtracted at this time. The measurement process described above is repeated two or three times to ensure that the obtained value is consistent. If there is variation, then an average of the values is considered as the depth value. This value is recorded in the field sampling data log.

3.2.2 Generator/Groundwater Pump Connection and Operation

The pump motor is connected to the generator with the 3-conductor wire. A wiring harness assembly has been developed that prevents an incorrect electrical connection from the generator to the pump motor. To avoid electrical shock, all work in and around the electrical boxes or connections should be performed with the generator turned "off". When selecting the location of the generator, wind direction is noted and the unit is parked downwind from the sampling location with the exhaust pipe facing away from the well area. This minimizes the possibility of samples being contaminated by diesel exhaust components.

3.2.3 Groundwater Discharge Pipe/Flow Meter

A horizontal discharge pipe is used to direct the pumped discharge away from the concrete well pad. A flow meter is installed in the discharge pipe to verify the pumping rate. The discharge pipe and flow meter should be supported at its end by an appropriate board or block to avoid stressing the tee connection at the top of the well. The pumping rate is determined by timing rotations of the flow meter. This information is recorded in the groundwater sampling log.

3.2.4 Groundwater Field Measurements

Several water quality measurements are required during well purging. Measurements will be collected every 5 minutes starting at 10 minutes after pumping commences. These include:

- pH
- Temperature
- Specific conductance
- Visual appearance

To make these measurements, a sample of water is collected in a polyethylene bucket and the various probes of the instruments are placed in the water. Readings are recorded in the groundwater sampling log. Sample collection can commence after a minimum of three well volumes plus the discharge pipe volume have been discharged and the field parameters have stabilized, or after a total of five well volumes have been discharged even if the field parameters have not stabilized. Field parameters are considered stabilized when two consecutive measurements meet the following criteria: pH measurements are within ±0.3 units, temperature is within ±1.0º C, and specific conductance is within ±10%. The required minimum and maximum purge volumes for each monitoring well are given in Table 4.

At a pumping rate of 15 gpm, 400 gal will be discharged in slightly less than 27 minutes.

3.2.5 Groundwater Sample Collection Order

Samples are collected from the wells in the following order: MW-5, MW-3, MW-2, and MW-4. Should contamination be detected in any of these wells during the previous sampling event, the sampling order should begin with the well showing the least contamination and end with the well showing the most contamination. The order of sample collection by parameter is as listed below:

- VOCs
- SVOCs
- Organochlorine pesticides
- Metals (manganese, sodium)
- Anions (sulfate and chloride)
- Radionuclides

3.2.6 Groundwater Sample Collection into Containers

The sample collection location is a stainless steel discharge valve and pipe located at the top of each well's vertical discharge pipe. This location allows a much slower flow of water to be discharged into sample containers, thereby minimizing agitation and potential volatilization of samples. To avoid potential contamination from skin oils, latex or polyethylene gloves are worn during the sample collection process. Containers are filled by holding the open container under the discharge stream and are capped immediately upon removal from the water stream. Non-volatile sample containers are filled to within 1 centimeter of the top prior to capping.

Samples for VOC analyses are collected in 40-mL vials with Teflon-lined caps. These samples must be collected in a manner that minimizes agitation and/or the generation of air bubbles, either of which may result in inaccurate results. The 40-mL vial is filled as close to the top as possible in the discharge water stream. If necessary, an additional sample can be collected in the inverted cap, which is then poured slowly into the sample vial. The goal is to have a reverse meniscus of sample water extending above the opening of the vial. To check that the sample is air-free, the container will be inverted and the cap gently tapped. The absence of entrapped air indicates a successful seal. When air is evident in the container, the entire sample will be discarded and another sample will be collected. Sample containers are never allowed to touch the discharge pipe.

3.2.7 Groundwater Field Duplicates

A blind duplicate will be collected and analyzed for each sampling parameter at one of the four on-site wells. The field duplicate will be labeled as “MW-6”. The well chosen for this purpose will rotate each time groundwater monitoring is conducted, and the location will be documented on the groundwater sampling form (Attachment A).

3.2.8 Groundwater Sample Labels

When collected, each sample and field duplicate is labeled with information that will thoroughly identify the sample origin while it is in the laboratory. Label information will include the date, well number, and analysis requested. Blind field duplicates are labeled as "MW-6". All label information is written with an indelible marker, which will remain legible even if wet. In addition, the label itself is covered with clear waterproof plastic tape to protect the writing from damage during transit and storage. Sample seals are not utilized, since sampling personnel retain full custody of the samples until they are delivered to the laboratory.

3.2.9 Groundwater Sample Packing, Transportation, and Delivery

Filled and labeled sample containers are packaged in a cooler with ice until they are transferred via chain-of-custody to the laboratory and placed in the laboratory refrigerator. Sample bottles are placed in the cooler in such a way to avoid breakage and to maximize ice contact for quick cooling of the samples. Trip blanks and duplicates are also placed in the cooler at the time of sample collection. Samples are transported in a UA vehicle directly to the analytical laboratory after each day of sampling.

If the laboratory is closed following field activities, the samples will be over-packed in ice and kept in a secure area accessible only to the staff of the UA Department of Risk Management Services. The samples will be delivered to the laboratory on the following work day.

3.3 Soil Vapor Sampling Procedures

This section describes the sampling procedures for the soil vapor monitoring points and the monitoring wells MW-2 and MW-5. Soil vapor sample collection at the effluent and between the treatment vessels of the SVE treatment system is described in the Operation and Maintenance Manual for the SVE system.

At each sample location, monitoring probes are first examined for any loss of structural integrity, such as cracks facilitating an air leak. If visual evidence of an air leak is observed, repairs must be made prior to sampling. Soil vapor samples are collected from soil vapor monitoring probes or the air exhaust line from soil vapor wells, which are equipped with an air-tight sampling port. VOC vapors are measured during purging using a portable PID. Samples are collected for laboratory analysis sample containers provided by the analytical laboratory. The sampling procedures below assume that pre-evacuated, pre-cleaned, 1-L stainless-steel Summa canisters are used. Sampling procedures will be updated if other types of sample containers are used. Leak test using leak detection compound (1,1-difluoroethane, pentane, isopropanol, isobutene, propane, or butane) will be conducted at each soil vapor sample location.

Since soil vapor samples are collected from two different types of monitoring points, dedicated soil vapor sampling points (SGS-Well, SGD-Well, SGS-SP, SGD-SP, SGD-MP, and SGD-DP) and groundwater monitoring wells (MW-2 and MW-5), two separate sampling procedures are followed. Soil vapor samples are collected in the following order: MW-2, MW-5, SGD-Well, SGD-MP, SGD-SP, SGD-DP, SGS-Well, and SGS-SP.

3.3.1 Sampling Procedures for Soil Vapor Monitoring Points

1. Remove well vault cover.
2. Put on nitrile gloves.
3. Open 3/8-inch outside diameter, ¼-inch inside diameter tubing baggie and cut approximately 2-3 feet of tubing for each sample point, if more than one present.
4. Attach one end of tubing to well (well should be equipped with a hose barb), and the other end to the vacuum pump (on the suction hose barb). Note: If sampling the monitoring points in the SGD-well, a second piece of tubing should be cut and attached to the sampling port not connected to the purge pump. The “loose” end of the tubing should be folded over on itself approximately 2-inches and secured with a zip-tie. This is done to protect the sampling port from cross contamination when the leak detection compound is introduced into the well (step 6).
5. Attach flow controller to summa canister and attach a previously decontaminated ¼-inch hose barb to the top of the flow controller. Set summa canister with flow controller aside.
6. Standing 10-feet downwind of sampling locations, hold the can of dust-off upside down and apply the leak detection compound onto the clean rag, place the rag in a plastic baggie, and insert the baggie into the well vault, with the open portion of the baggie facing the well and valve. Change gloves immediately.
7. Open valve on well with purge pump connected.
8. Start purging with vacuum pump. Table 5 presents the purge volumes for each well and the recommended purge times at differing well volumes purged. Typically, the minimum purge volume is 3 well volumes and the maximum not more than 5 well volumes. Record the time purging started and determine time to stop purging.
9. At completion of purging, close valve on well, stop vacuum pump, and remove tubing from pump only.
10. Connect Summa canister with flow controller to tubing connected to well.
11. To begin collection of sample, open valve on well and valve on Suma canister.
12. Monitor the vacuum gauge on the flow controller, if it is calibrated to 200 ml/min, it should take approximately 5 minutes to collect the sample.
13. To ensure a good sample, some vacuum must be left on the canister. Once the vacuum gauge reaches approximately 3 in Hg, close the valve on the canister, followed by the valve on the well. Note the final canister vacuum on the canister label.

14. Remove the tubing from the well, the flow controller and remove the flow controller from the canister. Replace brass cap onto canister.

15. Completely fill out label on canister: sample name, sample time, samplers name, analysis (TO-15), etc.

16. Log the sample on the Chain-of-Custody (COC) form. Make sure all required information is supplied on the COC.

17. Store the canister and flow controller in the boxes used to ship the sample containers. Do not re-use the flow controller.

18. Discard the tubing and all gloves used during sampling.

19. Move to next location and repeat 2 through 19.

3.3.2 Soil Vapor Sampling Procedure at Monitoring Wells MW-2 and MW-5

1. Attach air pump with gauge to air line to packers.

2. Inflate packers to 25 psi, and allow the pressure to stabilize for 30 minutes by monitoring the pressure in the packers periodically. Document measurements in field notes.

3. Complete above items 4 through 18.

4. To use leak detection compound while sampling from MW-2 and MW-5, place the baggie with the leak detection rag at the base of the well and a second rag with applied leak detection compound will be lain across the top of the well (on top of the well valve and tubing).

3.3.3 Duplicate Sample Collection Procedure

1. The duplicate tee is generally shipped in two pieces. Connect the two pieces ensuring the seal is tight.

2. Attach each of the tee attachments to the two flow controllers.

3. Following completion of purging, attach the tubing to the tee.

4. Open both valves simultaneously, if possible. If not, open first canister then the second as soon as possible.

5. Follow above steps 11 through 18 for collection of the duplicate samples.

3.3.4 Field Blank Collection Procedure

1. Attach the flow controller to the canister.

2. While standing over one of the well vaults and prior to sample collection at that location, open the valve to the canister to retrieve a sample of the ambient air.

3. Follow above steps 11 through 18 for collection of the field blank sample, omit leak detection compound.

3.3.5 Soil Vapor Sample Packing, Transportation, and Delivery

Filled and labeled sample containers are packaged in cardboard boxes (the same boxes used by the laboratory to send the sample containers), until transferred via chain-of-custody to the laboratory. Refrigeration of soil vapor sample is not necessary. Samples are transported in a UA vehicle directly to the analytical laboratory after each day of sampling.

If sample shipment is not possible immediately following field activities, the samples will be kept in a secure area accessible only to the staff of the UA Department of Risk Management Services. The samples will be delivered to the laboratory the following work day.

4. RECORDKEEPING

4.1 GROUNDWATER AND SOIL VAPOR SAMPLING LOGS

Permanent groundwater sampling logs and soil vapor sampling logs are maintained for data collected during the sampling process (Attachments A and B). The recorded data includes, but is not limited to:

- sample dates,
- sampling personnel name(s) and signature(s),
- groundwater depth measurements,
- groundwater and soil vapor purge information,
- groundwater field measurements (pH, temperature, and specific conductance),
- soil vapor field measurements (PID readings, vacuum pressure and flow rate),
- visual appearances and odor,
- field duplicate sample location, and
- notes of sampling conditions, such as the weather and pump operation.

A complete copy of this EGDMP is carried into the field as a reference. The groundwater and soil vapor sampling logs are considered part of the permanent sampling record and are stored in the UA Department of Risk Management Services office.

4.2 CHAIN-OF-CUSTODY

A chain-of-custody procedure is utilized to ensure that samples are accounted for at all times. This process greatly decreases the chance of samples being lost and provides accountability as to the proper storage and handling of the samples prior to analysis. A copy of the chain-of-custody form is included as Attachment C. Typically, custody will be limited to the sampler and the laboratory. In the event that the laboratory must ship a sample elsewhere for special analysis, the same chain-of-

custody procedures will be followed. Completed forms are kept on file in the UA Department of Risk Management Services, along with groundwater analytical results. Copies of the chain-of-custody forms will be submitted with analytical results as part of the reporting process outlined in the Quality Assurance Project Plan (QAPP; HGC, 2004b).

4.3 Laboratory Quality Assurance/Quality Control

The analytical laboratory is required to analyze all submitted samples within prescribed holding times and to conform to the individual requirements of the analytical methods. A critical part of any laboratory operation must be a well-designed quality assurance/quality control (QA/QC) plan. Laboratory QA/QC is discussed in the QAPP. The quality assurance plans for the analytical laboratories are included as Attachments D and E. Radiochemistry screening analyses will be performed by the UA Office of Radiation, Chemical and Biological Safety (ORCBS).

The UA will periodically need to solicit new competitive bids for non-radiochemical analytical services; thus, the vendor may change over time. Any selected analytical laboratory will be required to be licensed by the Arizona Environmental Laboratory Licensure Program for groundwater analysis and to have an acceptable QA/QC plan. The review and selection process will also include a review of laboratory certification inspection reports and site visits.

4.4 Laboratory Reporting

Upon completion of all requested analyses, analytical results will be summarized in tabular form and submitted to the UA Department of Risk Management Services. The laboratory report will include each constituent analyzed by each analytical method, along with their corresponding detection limits. The report will also include results of all laboratory duplicates, system blanks, and laboratory spikes, including recovery percentages and relative percent differences. Additionally, trip blank results, analysis date for each sample, and any other information pertinent to the interpretation of the results or specified in the QAPP will also be reported.

4.5 Filing Storage of Analytical Results

All analytical results from groundwater sampling are kept in a permanent file in the UA Department of Risk Management Services. Groundwater and soil vapor monitoring results will be kept on file at least through the post-closure monitoring period of the site.

4.6 Groundwater Monitoring Reports

Results of the groundwater and soil vapor monitoring will be included in a written semi-annual groundwater monitoring report for submittal to ADEQ. The report will be prepared by UA personnel or

its designee and will be due within 90 days of each semi-annual sampling event. The following will be included in each groundwater monitoring report:

- A narrative that summarizes the groundwater and soil vapor monitoring events and results in the previous six months. Summary of results will include a description of all verified detections, tentative detections, exceedance of alert levels in groundwater samples (if any), exceedance of soil vapor thresholds in soil vapor samples (if any), and results of statistical tests (if necessary). Soil vapor monitoring results will include all soil vapor samples, including monitoring points, SVE influent, between lead and lag adsorbent vessels, and SVE effluent. The narrative will also include any deviations from the EGDMP (if any) and any unusual conditions (if encountered).
- A narrative that summarizes operation of the SVE system (including runtime, downtime, flow rates)
- A description of maintenance activities, problems encountered, and corrective action implemented.
- QA/QC assessment of laboratory results and field measurements.
- Data from all groundwater and soil vapor sampling events presented in tabular or graphical format, including:
    - groundwater and soil vapor field parameters (depth to groundwater, pH, temperature, specific conductance, PID readings, vacuum pressure and flow rate),
    - analyses results (including all QA/QC samples),
    - graphs of concentrations at each soil vapor monitoring locations for the previous five years.
- Field documents and laboratory reports for all monitoring events.
    - sampling logs,
    - chain-of-custody forms,
    - Laboratory analytical reports.
- Certification by UA or UA's authorized agent.

5. REFERENCE

Hydro Geo Chem, Inc., 2004a, Interim Measures Investigation Report, June 8.

Hydro Geo Chem, Inc., 2004b, Post-Closure Expanded Groundwater Detection Monitoring Quality Assurance Project Plan, October 18.

Table 1. Groundwater Monitoring Well Construction Summary
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Well ID	Completion Date	Northing	Easting	Total Depth Drilled/Cased (ft bgs)	Casing Material	Casing Diameter for Screened Interval (in)	Screend Interval (ft bgs)	Measuring Point Elevation (ft amsl)
MW-1	9/26/1984	586359.08	1014625.54	842/840	steel	4.125	772 - 840 [6]	3640.91
MW-2	1/12/1985	585936.26	1013980.26	800/800	steel	4.125	632 - 800 [7]	3629.73
MW-3	1/18/1985	586332.77	1014143.73	800/800	steel	4.125	632 - 800 [7]	3632.45
MW-4	3/8/1985	585842.57	1014583.06	800/800	steel	4.125	632 - 800 [7]	3631.96
MW-5	9/24/1990	586409.13	1014625.05	755/750	steel	6	640 - 740 [8]	3642.28

Notes:

1. Source of survey data: Urban Engineering, Inc., 2/28/01 (reproduced from HGC, 2003).
2. Source of data for MW-1 through MW-4: EMA, 1985.
3. Source of data for MW-5: EEC, 1991.
4. Well MW-1 was replaced by well MW-5 in 1990.
5. Measuring point is the top of sounder tube.
6. Perforations are 3-inch by 0.125-inch vertical machine cut slots, 24 slots per foot.
7. Perforations are 3-inch by 0.100-inch vertical machine cut slots, 12 to 24 slots per foot.
8. Perforations not specified in report.

Abbreviations:
ft = feet
bgs = below ground surface
amsl = above mean sea level

Table 2. Soil Vapor Well Construction Summary
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Well ID	Completion Date	Northing	Easting	Total Depth Drilled (ft bgs)	Casing Diameter and Material	Screen	Screend Interval (ft bgs)	Steel Casing Elevation (ft amsl)
SGS-SP	12/5/2003	12976.08	10378.00	255	0.5-inch PVC	0.02-inch mill-slotted	75 - 80	3633.77
SGS-Well	12/5/2003	12976.08	10378.00	255	4-inch PVC	0.08-inch mill-slotted	100 - 220	3633.77
SGD-SP	12/9/2003	12934.99	10175.80	605	0.5-inch PVC	0.02-inch mill-slotted	100 - 120	3629.69
SGD-MP	12/9/2003	12934.99	10175.80	605	0.5-inch PVC	0.02-inch mill-slotted	195 - 215	3629.69
SGD-Well	12/9/2003	12934.99	10175.80	605	2-inch PVC	0.08-inch mill-slotted	480 - 540 560 - 600	3629.69
SGD-DP	12/13/2003	12934.75	10156.28	355	0.5-inch PVC	0.02-inch mill-slotted	330 - 350	3629.14

Notes:
1. Source of data: HGC, 2004
2. Survey information is for steel casing at each borehole.

Abbreviations:
ft = feet
bgs = below ground surface
amsl = above mean sea level

Table 3. Sample Containers and Preservtives
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Parameter	Container Type/Size	Preservative
VOCs in water	3@40-mL glass, Teflon cap	pH<2 with HCl; cool to 4°C
Metals	250-mL polyethylene	pH<2 with HNO_3; cool to 4°C
Anions (SO_4^{2-}, Cl^-)	250-mL polyethylene	cool to 4°C
SVOCs	2@1-L amber glass	cool to 4°C
Organochlorine Pesticides	1-L amber glass	cool to 4°C
Radionuclides	1-L plastic	pH<2 with HNO_3; cool to 4°C
VOCs in air	1-L Summa canister	None

Abbreviations:
°C = degree Celsius
HCl = Hydrochloric acid
HNO_3 = Nitric acid
L = liter
mL = milliliter
SVOCs = semi-volatile organic compounds
VOCs = volatile organic compounds

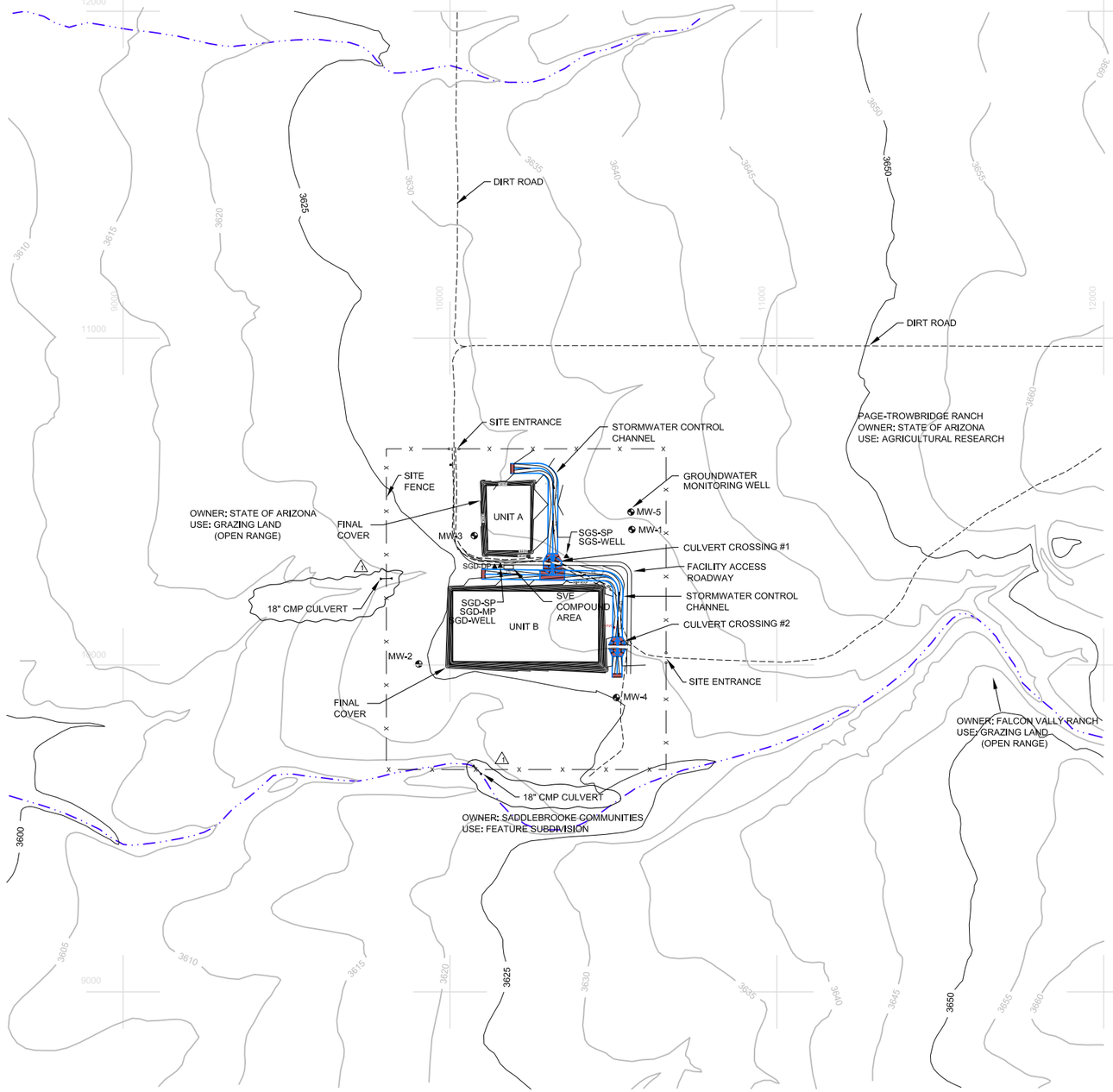
Table 4. Purge Volumes for Groundwater Sampling
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Monitoring Well	Minimum Purge Volume (gallons)	Maxiumum Purge Volume (gallons)
MW-2	412	617
MW-3	409	612
MW-4	409	611
MW-5	481	730

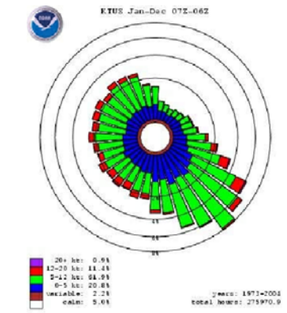
Table 5. Purge Volumes and Purge Times for Soil Vapor Sampling
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Monitoring Well	1 Well Volume Purge (ft^3)	3 Well Volumes Purge (ft^3)	5 Well Volumes Purge (ft^3)	1 Well Volume Purge Time (min)	3 Well Volumes Purge Time (min)	5 Well Volumes Purge Time (min)	Assumed Flow Rate for Calculting Purge Times (scfm)
MW-2	1.98	5.94	9.90	11	33	55	0.18
MW-5	2.02	6.05	10.09	11	33	55	0.18
SGD-SP	0.17	0.51	0.85	0.5	1.5	2.5	0.37
SGD-MP	0.30	0.90	1.50	0.5	1.5	2.5	0.57
SGD-DP	0.49	1.47	2.46	1.6	5	8	0.30
SGS-SP	0.12	0.35	0.57	0.3	0.7	1.5	0.47

Abbreviations:
ft^3 = cubic feet
min = minutes
scfm = standard cubic feet per min

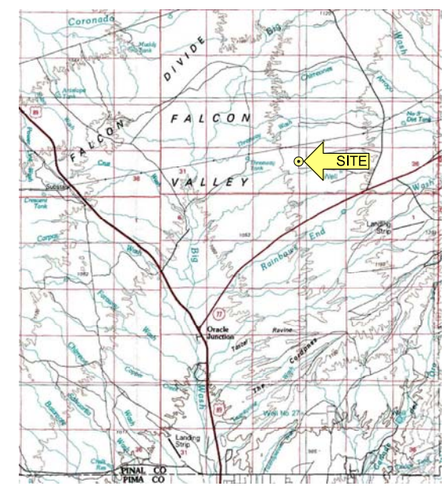


ALL WEATHER WINDROSE



SOURCE: U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER RECORD CENTER FOR YEARS JANUARY 1973 TO DECEMBER 2004.

LOCATION MAP



SOURCE: USGS MAMMOTH, ARIZONA 1986
1:100000 SCALE

SOURCE: STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, PHOENIX, ARIZONA DECEMBER 12, 1997.

REV	D	M	Y	ISSUE/REVISION DESCRIPTION	ENG.	APPR.
G						
F						
E						
D						
C						
B						
A	17	06	2011	ISSUED FOR PERMIT APPLICATION	X.X.	M.Z.

Client Logo:

Client:
UNIVERSITY OF ARIZONA
P.O. BOX 210460
TUCSON, AZ. 85721-0460

AMEC Earth & Environmental
1405 West Auto Drive
Tempe AZ 85284-1016

DATUM: --
PROJECTION: --
DRAWN BY: APS
REVIEWED BY: S. MIKELICH
ORIGINAL SCALE: AS SHOWN

PROJECT: PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

TITLE: VICINITY MAP AND SITE MAP WITH MONITORING WELL LOCATIONS

PROJECT NO.: A00377
REVISION NO.: A
DATE: JUNE 2011
DRAWING NO.: FIGURE 1
SHEET NO.: _ of _

www.amec.com/earthandenvironmental

Attachment A

PAGE RANCH LANDFILL POST-CLOSURE PERIOD
GROUNDWATER DETECTION MONITORING

GROUNDWATER SAMPLING LOG

Date: _____ Well Number: _____

Sampling Personnel (Print): _____

Signature(s): _____

Depth to Groundwater

Trial 1	Trial 2	Trail 3	Average Depth
_____	_____	_____	_____

Well depth = 800 feet (ft)
Static water depth (typical) = 650 ft
Casing Diameter = 4 inches (150 ft of water in casing)

Casing volume = area x height = (0.0873 ft^2) x (150 ft) = 13.1 ft^3
13.1 ft^3 x 7.48 gallons/ft^3 = 98 gallons
3 casing volumes = 294 gallons

Discharge pipe volume = area x height = (0.0218 ft^2) x 650 ft) = 14.2 ft^3
14.2 ft^3 x 7.48 gallons/ft^3 = 106 gallons

Total volume of 3 casing volumes + discharge pipe = 400 gallons

Beginning Purge Time: _____ Ending Purge Time: _____

Purge Flow Rate: _____ Total Volume Purged: _____

Color: _____ Clarity: _____

pH/Conductivity/Temperature (see reverse side)

Samples Collected for (in order of collection):

1. VOCs (Method 524.2) ____
2. Semi-VOCs (Method 8270C) ____
3. Organochlorine Pesticides (Method 8081A) ____
4. Mn, Na (Method 200.7) ____
5. SO_4/Cl (Method 300.0) ____
6. Gross Alpha/Beta ____

Laboratory: _____

TIME	TEMPERATURE	CONDUCTIVITY	PH	APPEARANCE

Remarks:

Attachment B

Page Trowbridge Ranch Landfill

Soil Vapor Monitoring

Date: _____

Sampling Location: _____

Begin Purge Time: _____ End Purge Time: _____

Packer Pressure: _____ Sampled At: _____

Canister #: _____ Canister #: _____

Original “Inches Hg”: _____ Final “Inches Hg”: _____

Sampler: _____

Print Name Signature

Date: _____

Sampling Location: _____

Begin Purge Time: _____ End Purge Time: _____

Packer Pressure: _____ Sampled At: _____

Canister #: _____ Canister #: _____

Original “Inches Hg”: _____ Final “Inches Hg”: _____

Sampler: _____

Print Name Signature

Page Trowbridge Ranch Landfill

Soil Vapor Monitoring

Date: _____

Sampling Location: _____

Begin Purge Time: _____ End Purge Time: _____

Packer Pressure: _____ Sampled At: _____

Canister #: _____ Canister #: _____

Original “Inches Hg”: _____ Final “Inches Hg”: _____

Sampler: _____

Print Name Signature

Date: _____

Sampling Location: _____

Begin Purge Time: _____ End Purge Time: _____

Packer Pressure: _____ Sampled At: _____

Canister #: _____ Canister #: _____

Original “Inches Hg”: _____ Final “Inches Hg”: _____

Sampler: _____

Print Name Signature

Attachment C

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # _____ DATE _____ PAGE _____ OF _____

PROJECT NAME _____ # _____

CONTACT NAME _____

COMPANY NAME _____

ADDRESS _____

_____ PHONE _____ FAX _____

SAMPLER'S SIGNATURE _____

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	Base Neutrals ☐ Acids ☐ 625/8270	Volatile Organics 624/524.2/8260	TTHMS ☐ HAA5 ☐	Pesticides ☐ PCB's ☐ 8081 8082	NO_2 ☐ NO_3 ☐ TKN ☐	Oil and Grease Grav. 1664A ☐	VOA ☐ TCLP Analysis Semi-VOA ☐ Pest. ☐	TCLP ☐ Dissolved ☐ Metals Total ☐ RCRA8 ☐	Total ☐ Cyanide Amen. ☐ WAD ☐	SDWA-INORGANICS PRIMARY ☐ SECONDARY ☐	MPN ☐ Coliform Colilert ☐	pH ☐ Cr_6 ☐ Cl_2 ☐	COD ☐ TSS ☐ BOD ☐				

1. RELINQUISHED BY:

Signature _____
Printed Name _____
Firm _____
Date/Time _____

2. RECEIVED BY:

Signature _____
Printed Name _____
Firm _____
Date/Time _____

TURNAROUND REQUIREMENTS:

____ **Standard (approx. 10 days)***

____ Next Day ____ 2 Day ____ 5 Day*

____ Email Preliminary Results To:

_____

* **Working Days**

REPORT REQUIREMENTS:

____ I. Routine Report

____ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)

____ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:

Account ____ Y ____ N

P.O. # _____

Bill to: _____

_____

_____

SAMPLE RECEIPT:

_____

_____

Total Containers _____

Temperature _____

☐ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:

Signature _____
Printed Name _____
Firm _____
Date/Time _____

4. RECEIVED BY:

Signature _____
Printed Name _____
Firm **TURNER LABORATORIES, INC.**
Date/Time _____

* LEGEND

DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	**Custody Seals** ☐	**Preservation Confirmation** ☐
ADEQ Forms: ☐ Yes ☐ No	**Container Intact** ☐	**Appropriate Head Space** ☐
Mail ADEQ Forms: ☐ Yes ☐ No	**COC / Labels Agree** ☐	**Received Within Hold Time** ☐

Chain-of-Custody Record

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection handling or shipping of these samples. Relinquished signature also indicated agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

AIR TOXICS LTD.
180 BLUE RAVINE RD, SUITE B
FOLSOM, CA 95630-1020
916-985-1000 main line
916-985-1020 fax line

Contact Person
Company
Address City State Zip
Phone FAX

Collected By: (Signature)

Project Information:

P.O. #
Project #
Project Name

Turn Around Time:

☐ Normal

☐ Rush
Specify

Pressurized by:

Date:

Press. Gas:
N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			
					”Hg			

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
					Yes No None	

April 27, 2012
Revision Draft

APPENDIX G-3

SOIL VAPOR AND SVE DATA

APPENDIX G-3 (Application APPENDIX I)

SUMMARY OF SOIL VAPOR AND SVE SYSTEM ANALYTICAL DATA

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill

Sample ID:	A1	A1 Dup	A1 Re-run	A2	A2A	A2B	A2C	A2E	A2E R	A2G	A2i	A2K	A3	A3A	A3B	A3C	A 3-55	A 3-55	A3K	A4	A4A
nce from landfill perimeter (ft):	5'	5'	5'	5'	15'	25'	35'	55'	55'	75'	95'	115'	7'	15'	25'	35'	55'	55'	125'	7'	15'
Date Sampled:	9/7/94	9/7/94	9/7/94	9/7/94	9/7/94	9/8/94	9/8/94	9/9/94	9/9/94	9/9/94	9/9/94	9/9/94	9/7/94	9/7/94	9/8/94	9/8/94	9/10/94	9/10/94	9/9/94	9/7/94	9/7/94
Time Sampled:	13:30	18:55	18:32	14:15	16:15	14:00	17:40	8:10	8:59	9:40	10:30	11:15	14:55	16:55	14:40	18:20	15:05	15:30	12:30	15:35	17:30
Date Analyzed:	9/7/94	9/7/94	9/7/94	9/7/94	9/7/94	9/8/94	9/8/94	9/9/94	9/9/94	9/9/94	9/9/94	9/9/94	9/7/94	9/7/94	9/8/94	9/8/94	9/10/94	9/10/94	9/9/94	9/7/94	9/7/94
	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Analytes	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)
Trichlorofluoromethane	56 E	< 1.0	< 1.0	31 E	32 E	39 E	13	69 E	33 E	31 E	30 E	1.6	37 E	38 E	45 E	11	130	160 E	24 E	33 E	35 E
1,1-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	1.1	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 25	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
1,1 Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 20	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	16	11	22	22	13	12	3.6	< 1.0	< 1.0	20	20	24 E	24 E	28	21	< 1.0	4.7	16
1,1,1-Trichloroethane	< 1.0	< 1.0	< 1.0	4.4	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Carbon Tetrachloride	< 1.0	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 20	< 5.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 1.0	2.8	< 1.0	< 1.0	2.6	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	4.6	25	1.1	1.8	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Bromoform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	52	< 5.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	65	< 5.0	< 1.0	< 1.0	< 1.0
Benzene	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 40	< 10	< 2.0	< 2.0	< 2.0
Tetrahydrofuran √	< 20	< 20	< 20	< 20	< 20	28	27	< 40	< 20	< 20	< 20	< 20	< 20	< 20	30	27	< 400	< 100	< 20	< 20	< 20
Toluene	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 40	< 10	< 2.0	< 2.0	< 2.0
Methyl ethyl ketone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 200	< 50	< 10	< 10	< 10
Methyl iso-butyl ketone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 200	< 50	< 10	< 10	< 10
1,2-Dibromocthane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 40	< 10	< 2.0	< 2.0	< 2.0
Total Xylenes	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	42	< 10	< 2.0	< 2.0	< 2.0

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill

Sample ID:	A4B	A 4-E	A 4-E	A4-E	A4K	A5	A5A	A5B	A5K	A5M	A5M	A5	A6	A-6	A6B	A 6-E	A 6-G	A6	A7	A8	A9
nce from landfill perimeter (ft):	25'	55'	55'	55'	115'	5'	15'	25'	110'	130'	130' Dup	150'	5'	5'	25'	55'	75'	150'	5'	5'	5'
Date Sampled:	9/8/94	9/10/94	9/10/94	9/10/94	9/9/94	9/8/94	9/8/94	9/8/94	9/9/94	9/9/94	9/9/94	9/9/94	9/8/94	9/10/94	9/8/94	9/10/94	9/10/94	9/9/94	9/8/94	9/8/94	9/8/94
Time Sampled:	15:20	11:45	12:45	13:25	13:20	7:15	11:00	16:30	14:45	15:50	16:30	17:05	7:47	14:25	17:05	16:45	17:05	17:50	8:13	8:48	9:20
Date Analyzed:	9/8/94	9/10/94	9/10/94	9/10/94	9/9/94	9/8/94	9/8/94	9/8/94	9/9/94	9/9/94	9/9/94	9/9/94	9/8/94	9/10/94	9/8/94	9/10/94	9/10/94	9/9/94	9/8/94	9/8/94	9/8/94
	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Analytes	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)
Trichlorofluoromethane	45 E	110	73	51	30 E	11	32 E	47 E	29 E	32 E	33 E	35 E	< 1.0	13	61 E	230 E	180 E	35 E	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	2	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 5.0	< 100	< 25	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 25	< 25	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1 Dichloroethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 20	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	23 E	37	59	< 5.0	< 1.0	24 E	22	5.7	10	4.1	1.7	1.0	5.1	< 5.0	94 E	72	39	1.6	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	5.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	7.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Tetrachloride	< 1.0	< 20	< 5.0	< 5.0	< 1.0	5.9	< 1.0	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	5.3	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	8.2	< 1.0	4.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	3.2	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	9.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	6.1	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 1.0	< 20	< 5.0	< 5.0	< 1.0	3.9	< 1.0	3.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	5.5	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	< 1.0	52	12	13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	< 1.0	66	15	15	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	15	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	< 2.0	< 40	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0
Tetrahydrofuran √	< 20	< 400	< 100	< 100	< 20	32	30	< 20	< 20	< 20	< 20	< 20	< 20	< 100	< 20	< 100	< 100	< 20	< 20	< 20	< 20
Toluene	< 2.0	< 40	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0
Methyl ethyl ketone	< 10	< 200	< 50	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 50	< 10	< 10	< 10	< 10
Methyl iso-butyl ketone	< 10	< 200	< 50	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50	< 10	< 50	< 50	< 10	< 10	< 10	< 10
1,2-Dibromocthane	< 1.0	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 2.0	< 40	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0
Total Xylenes	< 2.0	41	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill
Unit B

Sample ID:	A10	A11	A 2-5	A 2-5	A 4-5	A 4-5	A 4-5	A 4-5	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B11-Dup
nce from landfill perimeter (ft):	5'	5'	5'	5' Dup	5'	5'	5'	5'	5'	5'	5'	5'	5'	5'	5'	5'	5'	7'	7'	7'
Date Sampled:	9/8/94	9/8/94	9/10/94	9/10/94	9/10/94	9/10/94	9/10/94	9/10/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94
Time Sampled:	9:50	10:30	6:45	8:20	8:55	9:25	10:22	11:05	8:20	8:50	9:50	10:20	11:20	12:10	12:40	13:45	14:15	15:45	16:20	16:45
Date Analyzed:	9/8/94	9/8/94	9/10/94	9/10/94	9/10/94	9/10/94	9/10/94	9/10/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94	9/11/94
	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Analytes	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)
Trichlorofluoromethane	< 1.0	< 1.0	200	130	120	8.9	230 E	490 E	50 E	39	28	15	11	14	< 2.0	< 1.0	28 E	< 1.0	18	21
1,1-Dichloroethene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	7.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	< 5.0	< 5.0	< 100	< 100	< 100	< 25	< 25	< 50	< 5.0	< 25	< 25	< 5.0	< 25	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 50	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1 Dichloroethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 50	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 50	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	190	120	76	15	110	270 E	29 E	110	150 E	24 E	16.0	21	2.4	< 1.0	13	< 1.0	15	15
1,1,1-Trichloroethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	7.3	33	18	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Tetrachloride	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	7.7	< 5.0	21	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	2.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	1.2	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	9.2	24	19	1.5	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	< 1.0	< 1.0	54	48	46	12	12	24	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	< 1.0	< 1.0	63	58	56	15	15	30	< 1.0	< 5.0	< 5.0	< 1.0	< 5.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	< 2.0	< 2.0	< 40	< 40	< 40	< 10	< 10	< 20	< 2.0	< 10	< 10	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Tetrahydrofuran √	< 20	< 20	< 400	< 400	< 400	< 100	130	310	37	130	170	34	< 100	< 40	< 40	< 20	< 20	< 20	< 20	< 20
Toluene	< 2.0	< 2.0	< 40	< 40	< 40	< 10	< 10	< 20	< 2.0	< 10	< 10	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl ethyl ketone	< 10	< 10	< 200	< 200	< 200	< 50	< 50	< 100	< 10	< 50	< 50	< 10	< 20	< 20	< 20	< 10	< 10	< 10	< 10	< 10
Methyl iso-butyl ketone	< 10	< 10	< 200	< 200	< 200	< 50	< 50	< 100	< 10	< 50	< 50	< 10	< 20	< 20	< 20	< 10	< 10	< 10	< 10	< 10
1,2-Dibromocthane	< 1.0	< 1.0	< 20	< 20	< 20	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	< 2.0	< 2.0	< 40	< 40	< 40	< 10	< 10	< 20	< 2.0	< 10	< 10	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Xylenes	< 2.0	< 2.0	42	40	< 40	9.9	10	< 20	< 2.0	< 10	< 10	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill

Sample ID:	B12	B13	B14	B15	B16	B17	B18	B19	B19-Dup	B20	B1-B	B1-B	B2-B	B2-100	B3-D	B4-B	B4-100	B5-B	B6-B	B6-100	B7-B
nce from landfill perimeter (ft):	7'	7'	10'	9'	5'	5'	5'	5'	5'	5'	25'	25'	25'	100'	45'	25'	100'	25'	25'	100'	25'
Date Sampled:	9/11/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/13/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94
Time Sampled:	17:30	7:50	8:40	9:20	9:40	10:25	11:05	11:35	12:15	12:45	7:15	7:45	8:30	7:20	9:00	9:30	7:53	10:05	10:40	8:25	11:15
Date Analyzed:	9/11/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/12/94	9/13/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94
	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Analytes	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)
Trichlorofluoromethane	21	5.3	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	9.6	< 20	< 4.0	86 E	76	55	59 E	50	33	110 E	41	43	110 E	61E
1,1-Dichloroethene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	4.1	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Methylene Chloride	< 5.0	< 25	< 25	< 25	< 25	< 20	< 20	< 20	< 100	< 20	< 10	< 25	< 25	< 5.0	< 25	< 25	< 10	< 25	< 25	< 10	< 10
trans-1,2-Dichloroethene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
1,1 Dichloroethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
cis-1,2-Dichloroethene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Chloroform	37 E	54 E	59 E	63 E	>60*	110 E	72	120 E	52	93 E	59 E	77	120 E	26 E	41	38	16	26	19	19	24
1,1,1-Trichloroethane	< 1.0	< 2.0	< 2.0	< 2.0	**	< 4.0	< 4.0	< 4.0	< 20	< 4.0	4.5	< 5.0	13	1.2	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 1.0
Carbon Tetrachloride	6.2	< 2.0	3.7	< 2.0	3.4	< 4.0	< 4.0	< 4.0	< 20	< 4.0	6.2	< 5.0	5.3	5.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 1.0
1,2-Dichloroethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Trichloroethene	4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Bromodichloromethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
cis-1,3-Dichloropropene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
trans-1,3-Dichloropropene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
1,1,2-Trichloroethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Tetrachloroethene	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	9.2	5.4	23	1.4	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Dibromochloromethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Bromoform	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
1,3-Dichlorobenzene	< 1.0	5.1	4.9	5.4	4.6	9.8	11	11	55	12	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
1,2-Dichlorobenzene	< 1.0	5.8	5.7	6.1	5.7	12	11	11	60	13	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Benzene	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0	< 8.0	< 8.0	< 40	< 8.0	< 4.0	< 10	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 10	< 4.0	< 4.0
Tetrahydrofuran √	35	67	71	< 40	40	140	94	140	< 400	90	79	< 100	160	27	< 100	< 100	< 40	< 100	< 100	< 40	< 80
Toluene	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0	< 8.0	< 8.0	< 40	< 8.0	< 4.0	< 10	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 10	< 4.0	< 4.0
Methyl ethyl ketone	< 10	< 50	< 50	< 50	< 50	< 40	< 40	< 40	< 200	< 40	< 20	< 50	< 50	< 10	< 50	< 50	< 20	< 50	< 50	< 20	< 20
Methyl iso-butyl ketone	< 10	< 50	< 50	< 50	< 50	< 40	< 40	< 40	< 200	< 40	< 20	< 50	< 50	< 10	< 50	< 50	< 20	< 50	< 50	< 20	< 20
1,2-Dibromocthane	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 4.0	< 20	< 4.0	< 2.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 2.0	< 2.0
Ethylbenzene	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0	< 8.0	< 8.0	< 40	< 8.0	< 4.0	< 10	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 10	< 4.0	< 4.0
Total Xylenes	< 2.0	4.3	4.2	4.3	4.2	8.3	8.2	8.3	41	8.3	< 4.0	< 10	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 10	< 4.0	< 4.0

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill

Sample ID:	B8-B	B8-100	B9-B	B10-B	B10-70	B11-B	B12-B	B12-100	B13-B	B14-B	B14-110	B15-B	B15-B	B16-B	B16-100	B17-B	B18-B	B18-100	B19-B	B19-Dup	B20-B
nce from landfill perimeter (ft):	25'	100'	25'	25'	70'	25'	25'	100'	25'	25'	110'	25'	25' Dup	25'	100'	25'	25'	100'	25'	5'	25'
Date Sampled:	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/14/94	9/14/94	9/14/94	9/15/94	9/14/94	9/14/94	9/15/94	9/14/94	9/12/94	9/14/94
Time Sampled:	11:50	9:00	12:15	13:00	9:37	13:30	14:00	10:07	14:30	15:00	10:45	11:15	11:45	10:35	11:20	9:53	9:23	11:50	8:50	17:15	8:20
Date Analyzed:	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/13/94	9/13/94	9/15/94	9/14/94	9/14/94	9/14/94	9/15/94	9/14/94	9/14/94	9/15/94	9/14/94	9/12/94	9/14/94
	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Analytes	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)	(mg/m^3)
Trichlorofluoromethane	22	100 E	49 E	9.3	60 E	32 E	18	8.4	11	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	4.5	< 5.0	< 4.0	< 5.0
1,1-Dichloroethene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 4.0	< 5.0
Methylene Chloride	< 10	< 10	< 5.0	< 5.0	< 10	< 5.0	< 10	< 10	< 12	< 25	< 10	< 25	< 25	< 25	< 10	< 5.0	< 25	< 10	< 25	< 20	< 25
trans-1,2-Dichloroethene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 4.0	< 5.0
1,1 Dichloroethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 4.0	< 5.0
cis-1,2-Dichloroethene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 4.0	< 5.0
Chloroform	6.2	12	14	2.7	2.4	23 E	53 E	21	77	46	23	67	180 E	67	45 E	66	111 E	31	41	73	80
1,1,1-Trichloroethane	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Carbon Tetrachloride	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	3.8	< 2.0	8.4	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
1,2-Dichloroethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Trichloroethene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Bromodichloromethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
cis-1,3-Dichloropropene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
trans-1,3-Dichloropropene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
1,1,2-Trichloroethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Tetrachloroethene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Dibromochloromethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Bromoform	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
1,1,2,2-Tetrachloroethane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
1,3-Dichlorobenzene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
1,2-Dichlorobenzene	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Benzene	< 4.0	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 4.0	< 5.0	< 10	< 4.0	< 10	< 10	< 10	< 4.0	< 2.0	< 10	< 4.0	< 10	< 8.0	< 10
Tetrahydrofuran √	< 80	< 40	< 20	< 20	< 40	32	61	< 40	170	< 100	< 40	< 100	430 E	< 100	43	< 20	< 100	< 40	< 100	53	< 100
Toluene	< 4.0	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 4.0	< 5.0	< 10	< 4.0	< 10	< 10	< 10	< 4.0	< 2.0	< 10	< 4.0	< 10	< 8.0	< 10
Methyl ethyl ketone	< 20	< 20	< 10	< 10	< 20	< 10	< 20	< 20	< 25	< 50	< 20	< 50	< 50	< 50	< 20	< 10	< 50	< 20	< 50	< 40	< 50
Methyl iso-butyl ketone	< 20	< 20	< 10	< 10	< 20	< 10	< 20	< 20	< 25	< 50	< 20	< 50	< 50	< 50	< 20	< 10	< 50	< 20	< 50	< 40	< 50
1,2-Dibromocthane	< 2.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.5	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 2.0	< 5.0	< 1.0	< 5.0
Ethylbenzene	< 4.0	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 4.0	< 5.0	< 10	< 4.0	< 10	< 10	< 10	< 4.0	< 2.0	< 10	< 4.0	< 10	< 8.0	< 10
Total Xylenes	< 4.0	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 4.0	< 5.0	< 10	< 4.0	< 10	< 10	< 10	< 4.0	< 2.0	< 10	< 4.0	< 10	< 8.0	< 10

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-1
Summary of Soil Vapor Data from Terra Tech (1994)
Page Trowbridge Ranch Landfill

Sample ID:	B20-100	B20-100	B21	B21-B	B21-B	B21-B	B22	B22-Dup	B22-B	B22-100	B22-100	B23-Trip	B23-Quad	B23-B	B-EAST	A-EAST
ance from landfill perimeter (ft):	100'	100'	5'	25'	25'	25' Dup	5'	5'	25'	100'	100'	5'	5'	25'	90'	100'
Date Sampled:	9/15/94	9/15/94	9/12/94	9/13/94	9/14/94	9/14/94	9/12/94	9/12/94	9/13/94	9/15/94	9/15/94	9/12/94	9/12/94	9/13/94	9/15/94	9/15/94
Time Sampled:	13:15	14:45	13:20	17:05	7:25	7:52	13:50	14:40	16:00	13:45	14:15	16:10	16:35	15:30	15:15	15:45
Date Analyzed:	9/15/94	9/15/94	9/12/94	9/13/94	9/14/94	9/14/94	9/12/94	9/12/94	9/13/94	9/15/94	9/15/94	9/12/94	9/12/94	9/13/94	9/15/94	9/15/94
Analytes	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)	Conc. (mg/m^3)
Trichlorofluoromethane	< 2.0	2.3	7.9	< 5.0	< 5.0	< 5.0	15	9.8	14	17	17	31	20	25	61 E	130 E
1,1-Dichloroethene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Methylene Chloride	< 10	< 10	< 20	< 25	< 25	< 25	< 20	< 20	< 25	< 10	< 10	< 20	< 20	< 25	< 5.0	< 10
trans-1,2-Dichloroethene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
1,1 Dichloroethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
cis-1,2-Dichloroethene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Chloroform	< 2.0	6.6	120 E	16	46	80	120 E	45.0	96	31	23	55	31	61	21	< 2.0
1,1,1-Trichloroethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Carbon Tetrachloride	< 2.0	< 2.0	13	< 5.0	< 5.0	< 5.0	15	< 4.0	5.1	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	5.8	< 2.0
1,2-Dichloroethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Trichloroethene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Bromodichloromethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
cis-1,3-Dichloropropene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
trans-1,3-Dichloropropene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
1,1,2-Trichloroethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Tetrachloroethene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Dibromochloromethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Bromoform	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
1,1,2,2-Tetrachloroethane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
1,3-Dichlorobenzene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
1,2-Dichlorobenzene	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Benzene	< 4.0	< 4.0	< 8.0	< 10	< 10	< 10	< 8.0	< 8.0	< 10	< 4.0	< 4.0	< 8.0	< 8.0	< 10	< 2.0	< 4.0
Tetrahydrofuran √	< 40	< 40	110	< 100	< 100	< 100	110	< 80	< 100	< 40	< 40	< 80	< 80	< 100	21	< 40
Toluene	< 4.0	< 4.0	< 8.0	< 10	< 10	< 10	< 8.0	< 8.0	< 10	< 4.0	< 4.0	< 8.0	< 8.0	< 10	< 2.0	< 4.0
Methyl ethyl ketone	< 20	< 20	< 40	< 50	< 50	< 50	< 40	< 40	< 50	< 20	< 20	< 40	< 40	< 50	< 10	< 20
Methyl iso-butyl ketone	< 20	< 20	< 40	< 50	< 50	< 50	< 40	< 40	< 50	< 20	< 20	< 40	< 40	< 50	< 10	< 20
1,2-Dibromocthane	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 4.0	< 4.0	< 5.0	< 2.0	< 2.0	< 4.0	< 4.0	< 5.0	< 1.0	< 2.0
Ethylbenzene	< 4.0	< 4.0	< 8.0	< 10	< 10	< 10	< 8.0	< 8.0	< 10	< 4.0	< 4.0	< 8.0	< 8.0	< 10	< 2.0	< 4.0
Total Xylenes	< 4.0	< 4.0	< 8.0	< 10	< 10	< 10	< 8.0	< 8.0	< 10	< 4.0	< 4.0	< 8.0	< 8.0	< 10	< 2.0	< 4.0

Notes:
E = Estimated concentration; sample exceeded calibration range.
< - Not detected at the specified quantitation limit.
All samples collected at 10' unless otherwise noted. Sample A4-5 @ 10:22 is 25' deep;
Sample A4-5 @ 11:05 is 5' deep. Sample A4-E @ 11:45 is 5' deep; @ 12:45 is 10' deep;
@ 13:25 is 15' deep. Sample a3-55 @ 15:05 is 10' deep; @ 15:30 is 18' deep.
Sample A6-E @ 16:45 is 9' deep. Sample A6-G @ 17:05 is 9' deep.
√ - Estimated quantitation limit for this compound.

Note: Reproduced from Table 3 in AMEC, 2009, Human Health Risk Assessment

Table I-2
Summary of Surface Soil Gas Data from Perimeter Sampling Event (Weston 2003)
Page-Trowbridge Ranch Landfill, Pinal County, Arizona
(mg/m^3)

Sample ID	Depth of Sample (ft bgs)	Sample Date	TCE	PCE
DP-SG-003-005	5	7/29/2002	6.3	3.9
DP-SG-004-005	5	7/29/2002	5.0	3.2
DP-SG-005-005	5	7/29/2002	3.4	2.1
DP-SG-006-005	5	7/29/2002	5.4	4.1
DP-SG-007-005	5	7/29/2002	1.4	1.4
DP-SG-009-005	5	7/29/2002	1.4	1.8
DP-SG-010-005	5	7/29/2002	1.8	2.2
DP-SG-015-005	5	7/30/2002	1.9	<1
DP-SG-016-005	5	7/30/2002	1.5	<1
DP-SG-017-005	5	7/30/2002	1.7	<1
DP-SG-019-005	5	7/30/2002	2.5	<1
DP-SG-021-005	5	7/30/2002	2.1	<1
DP-SG-022-005	5	7/30/2002	1.7	<1
DP-SG-023-005	5	7/30/2002	2.1	<1
DP-SG-027-005	5	7/30/2002	1.0	<1
DP-SG-028-005	5	7/30/2002	1.5	<1
DP-SG-031-005	5	7/30/2002	1.0	<1
DP-SG-038-005	5	7/31/2002	<1	1.5
DP-SG-042-005	5	7/31/2002	1.3	<1
DP-SG-043-005	5	7/31/2002	2.3	<1
DP-SG-044-005	5	7/31/2002	1.5	<1
DP-SG-045-005	5	7/31/2002	1.7	1.2
DP-SG-045-009	9	7/31/2002	3.9	2.8
DP-SG-046-004	4	7/31/2002	2.1	1.6
DP-SG-047-005	5	7/31/2002	1.3	<1
DP-SG-048-005	5	7/31/2002	2.3	<1
DP-SG-048-008	8	7/31/2002	3.5	<1
DP-SG-050-005	5	7/31/2002	1.2	<1
DP-SG-050-010	10	7/31/2002	4.7	<1
DP-SG-052-005	5	8/1/2002	1.0	1.2
DP-SG-053-005	5	8/1/2002	1.2	<1
DP-SG-056-005	5	8/1/2002	1.4	<1
DP-SG-057-005	5	8/1/2002	1.6	<1
DP-SG-058-005	5	8/1/2002	2.2	<1
DP-SG-059-005	5	8/1/2002	2.0	<1
DP-SG-060-005	5	8/1/2002	2.9	1.7
DP-SG-061-005	5	8/1/2002	1.5	<1
DP-SG-063-005	5	8/1/2002	1.6	<1
DP-SG-064-005	5	8/1/2002	1.5	<1
DP-SG-065-005	5	8/1/2002	1.5	<1
DP-SG-066-005	5	8/1/2002	1.0	<1

< = indicates contaminant not detected above the practical quantitation limit

(1) Table represents data for PCE/TCE only. The following compounds were detected below the detection limit (detection limits in parentheses, mg/kg): trans 1,2-DCE (2), cis 1,2-DCE (2), Benzene (0.5), TCE (1), Toluene (1), PCE (1), Ethylbenzene (1), Total Xylenes (1.5)
See Figure 3 in Weston 2003 for sampling locations.

Note: Reproduced from Table 4 in AMEC, 2009, Human Health Risk Assessment

Table I-3
Summary of Soil-Gas Data Subsurface Borings (mg/m^3)[1]
Page-Trowbridge Ranch Landfill, Pinal County, Arizona

Soil Boring Location	Soil Vapor Sample Identifier	Sample Date	Benzene	TCE	Toluene	PCE	Total Xylenes	Depth of Sample[2] (fbgs)	% Moisture [2]	Results for Soil Sample[2] (mg/Kg)
SB-1	SB-SG-001-011	8/5/2002	<0.5	4.3	<1	<1	<1.5	10	2	ND
	SB-SG-001-021	8/5/2002	<0.5	3.3	1.3	<1	<1.5	20	3	ND
	SB-SG-001-031	8/5/2002	<0.5	17	<1	<1	<1.5	30	3	ND
	SB-SG-001-041	8/5/2002	<0.5	12	<1	<1	<1.5	40	6	ND
	SB-SG-001-051	8/5/2002	<0.5	12	<1	<1	<1.5	50	10	ND
	SB-SG-001-061	8/5/2002	<0.5	22	<1	<1	<1.5	60	5	ND
	SB-SG-001-071	8/5/2002	<0.5	43	<1	2	<1.5	70	3	ND
	SB-SG-001-081	8/5/2002	<0.5	41	<1	1.8	<1.5	80	10	ND
	SB-SG-001-091	8/6/2002	<0.5	6.2	<1	<1	<1.5	90	5	ND
	SB-SG-001-101	8/6/2002	<0.5	6.4	<1	<1	<1.5	100	14	Chloroform 0.27/0.24
	SB-SG-001-111	8/6/2002	<0.5	4.9	7.9	<1	<1.5	110	7	ND
	SB-SG-001-121	8/7/2002	<0.5	1.2	2.2	<1	<1.5	120	2	ND
	SB-SG-001-131	8/7/2002	<0.5	<1	1.7	<1	<1.5	130	3	ND
	SB-SG-001-141	8/7/2002	<0.5	22	<1	<1	<1.5	140	14	Chloroform 0.12
	SB-SG-001-151	8/7/2002	<0.5	47	<1	2.2	<1.5	150	3	ND
	SB-SG-001-161	8/7/2002	0.53	26	1.8	1.3	<1.5	160	3	BEHP 0.5/<0.33
	SB-SG-001-171	8/8/2002	<0.5	6.1	1.1	<1	<1.5	170	3	BEHP 3.9
	SB-SG-001-191	8/8/2002	<0.5	3.4	<1	<1	<1.5	190	2	BEHP 0.8
SB-2	SB-SG-002-011	8/12/2002	<0.5	3.1	<1	1.8	<1.5	10	10	PCE 0.09
	SB-SG-002-021	8/12/2002	<0.5	6.3	2.7	3.4	<1.5	20	5	ND
	SB-SG-002-031	8/12/2002	<0.5	6.9	3.4	3.6	<1.5	30	6	ND
	SB-SG-002-041	8/12/2002	<0.5	13	3.4	7.3	<1.5	40	8	ND
	SB-SG-002-051	8/12/2002	0.69	58	<1	39	<1.5	50	3	ND
	SB-SG-002-061	8/12/2002	0.64	47	<1	30	<1.5	60	7	ND
	SB-SG-002-071	8/12/2002	0.84	66	<1	**43**	<1.5	70	4	ND
	SB-SG-002-081	8/13/2002	<0.5	3.1	1.6	1.4	<1.5	80	6	ND
	SB-SG-002-091	8/13/2002	0.71	20	1.4	11	<1.5	90	5	ND
	SB-SG-002-101	8/13/2002	<0.5	<1	3.4	<1	<1.5	100	5	Chloroform 0.09
	SB-SG-002-111	8/13/2002	1.3	63	8.9	39	<1.5	110	2	ND
	SB-SG-002-121	8/13/2002	1	57	<1	30	<1.5	120	3	ND
	SB-SG-002-131	8/13/2002	1.3	**75**	<1	40	<1.5	130	5	ND
	SB-SG-002-141	8/13/2002	0.56	17	<1	10	<1.5	140	11	Chloroform 0.25
	SB-SG-002-151	8/14/2002	<0.5	4	<1	2.6	<1.5	150	3	ND
	SB-SG-002-161	8/14/2002	<0.5	4.9	2.5	1.8	<1.5	160	5	ND
	SB-SG-002-171	8/14/2002	**1.7**	7.6	12	2.9	<1.5	170	12/6	ND
	SB-SG-002-181	8/14/2002	0.89	4.2	6.8	1.6	<1.5	180	3	ND
	SB-SG-002-191	8/14/2002	1	34	2.5	11	<1.5	190	5	ND
	SB-SG-002-201	8/14/2002	1.2	32	2.3	9.7	<1.5	200	6	ND

Note: Reproduced from Table 5 in AMEC, 2009, Human Health Risk Assessment

Table 1-3
Summary of Soil-Gas Data Subsurface Borings (mg/m^3)[1]
Page-Trowbridge Ranch Landfill, Pinal County, Arizona

Soil Boring Location	Soil Vapor Sample Identifier	Sample Date	Benzene	TCE	Toluene	PCE	Total Xylenes	Depth of Sample[2] (fbgs)	% Moisture [2]	Results for Soil Sample[2] (mg/Kg)
SB-3	SB-SG-003-011	8/6/2002	<0.5	1	<1	<1	<1.5	10	8	ND
	SB-SG-003-021	8/6/2002	<0.5	3.4	2.3	1.9	<1.5	20	6	ND
	SB-SG-003-031	8/6/2002	<0.5	11	<1	6.8	<1.5	30	8	Chloroform 0.064
	SB-SG-003-041	8/6/2002	<0.5	8.2	1.5	4.9	<1.5	40	10	ND
	SB-SG-003-051	8/9/2002	<0.5	12	<1	6.8	<1.5	50	8	ND
	SB-SG-003-061	8/9/2002	<0.5	11	<1	6.4	<1.5	60	6	ND
	SB-SG-003-071	8/9/2002	1	25	3.6	17	**2.5**	70	6	ND
	SB-SG-003-081	8/9/2002	<0.5	4.1	<1	2.7	<1.5	80	5	Chloroform 0.072
	SB-SG-003-091	8/9/2002	<0.5	4.4	2.2	2.8	<1.5	90	7	ND
	SB-SG-003-101	8/9/2002	1	28	<1	19	<1.5	100	6	ND
	SB-SG-003-111	8/9/2002	1.3	49	<1	37	<1.5	110	3/5	ND
SB-4	SB-SG-004-121	8/15/2002	<0.5	<1	2.2	<1	<1.5	120	3	ND
	SB-SG-004-131	8/15/2002	1.3	40	<1	27	<1.5	130	3	ND
	SB-SG-004-1 [3]	8/15/2002	1.6	43	<1	29	<1.5	140	5	ND
	SB-SG-004-151	8/15/2002	0.81	7.2	2.2	4.6	<1.5	150	2	ND
	SB-SG-004-161	8/15/2002	1	32	<1	21	<1.5	160	9	ND
	SB-SG-004-171	8/16/2002	0.96	27	1.3	17	<1.5	170	5/6	ND
	SB-SG-004-181	8/16/2002	0.8	5.5	**21**	3.1	<1.5	180	14	ND
	SB-SG-004-191	8/16/2002	0.59	<1	3.5	<1	<1.5	190	4/6	ND
	SB-SG-004-201	8/16/2002	<0.5	<1	2.2	<1	<1.5	200	10/5	ND
	Maximum Detected Concentration		1.7E+00	7.5E+01	2.1E+01	4.3E+01	2.5E+00			
	California Shallow Soil Gas Screening Levels--Res		3.6E-02	5.3E-01	1.4E+02	1.8E-01	3.2E+02			
	California Shallow Soil Gas Screening Levels--Ind		1.2E-01	1.8E+00	3.8E+02	6.0E-01	8.8E+02			
	Region 9 Ambient Air PRG		2.5E-04	1.7E-05	4.0E-01	3.3E-04	1.1E-03			

[1] Table presents soil-gas samples with concentrations of contaminants above the practical quantitation limit only. See Appendix C for laboratory data of all samples.
From Table 4 in Weston 2003. *Technical Memorandum Interim Measures Task 1 Soil and Soil Gas Sampling Investigatior*
(2) From Soil Boring Logs in Appendix B of Weston 2003.
(3) Assumed this sample is represents sample from SB-3/SB-4 from 140 fbgs (see Appendix B in Weston 2003)
Note in Appendix B (Weston 2003): Soil Boring SB-3 terminated at 111 fbgs due to refusal; SB-4 contined lithologic description but located 12 feet southwest of SB-3.
< or ND = Not detected above Practical Quantitation Limit

Note: Reproduced from Table 5 in AMEC, 2009, Human Health Risk Assessment

Table I-4
Shallow Soil Vapor Survey December 2007
Page-Trowbridge Ranch Landfill

	Sample ID	SV-1		SV-2		SV-2 (Lab dup)	SV-3		SV-4 [1]		SV-5		SV-6		SV-7		SV-8		SV-14 Dup to SV-8	
	Sample Date	12/18/07		12/18/07		12/18/07	12/18/07		12/18/07		12/18/07		12/18/07		12/18/07		12/18/07		12/18/07	
	Units	ug/m3		ug/m3		ug/m3	ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
	Depth Screen Interval (fbgs)	10		10		10	10		10		10		10		10		10		10	
CAS NUMBER	ANALYTE NAME																			
75-35-4	1,1-Dichloroethene	9.6	U	4.8	U		10	U	4.7	UJ	5	U	4.7	U	5.7	U	5.1	U	5.2	U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	39		40		45	9.1		3.5	UJ	20		48		35		4.9	J	8.5	J
108-10-1	4-Methyl-2-pentanone	13		11		11	10	U	4.9	UJ	10		47		12		5.3	U	5.4	U
67-64-1	Acetone	2200		240		230	89		29	J	210		240		220		86	J	120	J
71-43-2	Benzene	13		38		**40**	8.1	U	3.8	UJ	14		8.4		14		10		8.5	
75-15-0	Carbon Disulfide	7.5	U	17		16	7.9	U	3.7	UJ	11		9.4		24		5.1		4.7	
56-23-5	Carbon Tetrachloride	120		210		200	610		14	J	160		220		450		340		330	
67-66-3	Chloroform	81		800		780	3000		66	J	1200		1900		2000		400		390	
100-41-4	Ethyl Benzene	**34**		6.1		6.2	11	U	5.2	UJ	6.8		5.2	U	6.3	U	5.6	U	5.7	U
108-38-3/106-42-3	m,p-Xylene	99		15		17	25		5.2	UJ	17		12		17		11		11	
95-47-6	o-Xylene	28		7.2		7.4	11	U	5.2	UJ	5.6		5.2	U	6.3	U	5.6	U	5.7	U
1330-20-7	Total Xylenes	**127**		22.2		24.4	30.5		5.2	UJ	22.6		14.6		20.15		13.8		13.85	
75-09-2	Methylene Chloride	8.4	U	4.2	U		8.8	U	4.1	UJ	6.4		4.1	U	5	U	4.6		4.6	U
127-18-4	Tetrachloroethene	16	U	17		15	49		8.1	UJ	8.6	U	8.1	U	9.8	U	8.8	U	9	U
108-88-3	Toluene	**70**		57		52	26		7.2	J	44		22		46		30		26	
79-01-6	Trichloroethene	13	U	31		27	88		6.4	UJ	25		43		75		35		35	
75-69-4	Freon 11 (Fluorotrichloromethane)	930		640		610	1400		38	J	270		220		240		180		180	
75-71-8	Freon 12 (Dichlorodifluoromethane)	50		80		70	370		25	J	340		350		650		480		490	
76-13-1	Freon 113 (1,1,2-Trichlorotrifluoroethane)	160		150		140	360		11	J	70		55		57		36		38	
156-59-2	cis-1,2-Dichloroethene	9.6	U	4.8	U		10	U	4.7	UJ	5	U	4.7	U	5.7	U	5.1	U	5.2	U
71-55-6	1,1,1-Trichloroethane	13	U	6.6	U		14	U	6.5	UJ	6.9	U	6.5	U	7.9	U	7	U	7.2	U
79-34-5	1,1,2,2-Tetrachloroethane	17	U	8.3	U		17	U	8.2	UJ	8.7	U	8.2	U	9.9	U	8.8	U	9.1	U
75-34-3	1,1-Dichloroethane	9.8	U	4.9	U		10	U	4.8	UJ	5.1	U	4.8	U	5.8	U	5.2	U	5.3	U
75-37-6	1,1-Difluoroethane [1]	26	U	13	U		27	U	11000	J	14	U	13	U	16	U	14	U	14	U
107-06-2	1,2-Dichloroethane	9.8	U	4.9	U		10	U	4.8	UJ	5.1	U	4.8	U	5.8	U	5.2	U	5.3	U
78-87-5	1,2-Dichloropropane	11	U	5.6	U		12	U	5.5	UJ	5.8	U	5.5	U	6.7	U	6	U	6.1	U
142-28-9	1,3-Dichloropropane	45	U	22	U		47	U	22	UJ	23	U	22	U	27	U	24	U	24	U
591-78-6	2-Hexanone	40	U	20	U		41	U	19	UJ	21	U	19	U	24	U	21	U	22	U
75-27-4	Bromodichloromethane	16	U	8.1	U		17	U	8	UJ	8.5	U	8	U	9.7	U	8.6	U	8.8	U
75-25-2	Bromoform	25	U	12	U		26	U	12	UJ	13	U	12	U	15	U	13	U	14	U
74-83-9	Bromomethane	9.4	U	4.7	U		9.8	U	4.6	UJ	4.9	U	4.6	U	5.6	U	5	U	5.1	U
108-90-7	Chlorobenzene	11	U	5.6	U		12	U	5.5	UJ	5.8	U	5.5	U	6.6	U	5.9	U	6.1	U
75-00-3	Chloroethane	6.4	U	3.2	U		6.7	U	3.1	UJ	3.3	U	3.1	U	3.8	U	3.4	U	3.5	U
124-48-1	Dibromochloromethane	21	U	10	U		22	U	10	UJ	11	U	10	U	12	U	11	U	11	U
1634-04-4	Methyl tert-butyl ether	8.7	U	4.4	U		9.1	U	4.3	UJ	4.6	U	4.3	U	5.2	U	4.6	U	4.8	U
100-42-5	Styrene	10	U	5.2	U		11	U	5.1	UJ	5.4	U	5.1	U	6.2	U	5.5	U	5.6	U
156-60-5	trans-1,2-Dichloroethene	9.6	U	4.8	U		10	U	4.7	UJ	5	U	4.7	U	5.7	U	5.1	U	5.2	U
75-01-4	Vinyl Chloride	6.2	U	3.1	U		6.5	U	3	UJ	3.2	U	3	U	3.7	U	3.3	U	3.4	U

Note: Reproduced from Table 7 in AMEC, 2009, Human Health Risk Assessment

Table I-4
Shallow Soil Vapor Survey December 2007
Page-Trowbridge Ranch Landfill

	Sample ID **Sample Date** **Units** **Depth Screen Interval (fbgs)**	SV-9 12/18/07 ug/m3 10		SV-10 12/18/07 ug/m3 10		SV-11-10 12/18/07 ug/m3 10		SV-13 12/18/07 ug/m3 10		No. Detected	No. analyzed	FOD %	Maximum Detect (All Samples)	Maximum Detect (shallow samples--along property boundary SV-1 to SV8)
CAS NUMBER	ANALYTE NAME													
75-35-4	1,1-Dichloroethene	96	U	250	U	39	U	190		1	13	8%	190	0
78-93-3	2-Butanone (Methyl Ethyl Ketone)	71	U	180	U	29	U	9.5		10	14	71%	48	48
108-10-1	4-Methyl-2-pentanone	99	U	260	U	40	U	8.1		7	14	50%	47	47
67-64-1	Acetone	260		600	U	160		64		13	14	93%	2200	2200
71-43-2	Benzene	77	U	200	U	32	U	8.9		9	14	64%	40	40
75-15-0	Carbon Disulfide	75	U	200	U	31	U	4.9		8	14	57%	24	24
56-23-5	Carbon Tetrachloride	2600		4400		2400		650		14	14	100%	4400	610
67-66-3	Chloroform	35000		92000		16000		650		14	14	100%	92000	3000
100-41-4	Ethyl Benzene	100	U	270	U	43	U	5.2	U	4	14	29%	34	34
108-38-3/106-42-3	m,p-Xylene	100	U	270	U	43	U	13		10	14	71%	99	99
95-47-6	o-Xylene	100	U	270	U	43	U	5.2	U	4	14	29%	28	28
1330-20-7	Total Xylenes	100	U	270	U	43	U	15.6		10	14	71%	127	127
75-09-2	Methylene Chloride	84	U	220	U	34	U	4.2	U	2	13	15%	6.4	6.4
127-18-4	Tetrachloroethene	160	U	430	U	67	U	320		4	14	29%	320	49
108-88-3	Toluene	91	U	240	U	37	U	25		11	14	79%	70	70
79-01-6	Trichloroethene	1200		3000		1400		130		12	14	86%	3000	88
75-69-4	Freon 11 (Fluorotrichloromethane)	2500		7800		7800		11000	J	14	14	100%	11000	1400
75-71-8	Freon 12 (Dichlorodifluoromethane)	2700		3600		1800		36		14	14	100%	3600	650
76-13-1	Freon 113 (1,1,2-Trichlorotrifluoroethane)	260		620		310		1300		14	14	100%	1300	360
156-59-2	cis-1,2-Dichloroethene	96	U	250	U	39	U	4.8	U	0	13			
71-55-6	1,1,1-Trichloroethane	130	U	340	U	54	U	6.6	U	0	13			
79-34-5	1,1,2,2-Tetrachloroethane	170	U	430	U	68	U	8.3	U	0	13			
75-34-3	1,1-Dichloroethane	98	U	260	U	40	U	4.9	U	0	13			
75-37-6	1,1-Difluoroethane (1)	260	U	680	U	110	U	13	U	1	13	8%	11000	11000 (1)
107-06-2	1,2-Dichloroethane	98	U	250	U	40	U	4.9	U	0	13			
78-87-5	1,2-Dichloropropane	110	U	290	U	46	U	5.6	U	0	13			
142-28-9	1,3-Dichloropropane	450	U	1200	U	180	U	22	U	0	13			
591-78-6	2-Hexanone	400	U	1000	U	160	U	20	U	0	13			
75-27-4	Bromodichloromethane	160	U	420	U	66	U	8.1	U	0	13			
75-25-2	Bromoform	250	U	650	U	100	U	12	U	0	13			
74-83-9	Bromomethane	94	U	240	U	38	U	4.7	U	0	13			
108-90-7	Chlorobenzene	110	U	290	U	46	U	5.6	U	0	13			
75-00-3	Chloroethane	64	U	170	U	26	U	3.2	U	0	13			
124-48-1	Dibromochloromethane	210	U	540	U	84	U	10	U	0	13			
1634-04-4	Methyl tert-butyl ether	87	U	230	U	36	U	4.4	U	0	13			
100-42-5	Styrene	100	U	270	U	42	U	5.2	U	0	13			
156-60-5	trans-1,2-Dichloroethene	96	U	250	U	39	U	4.8	U	0	13			
75-01-4	Vinyl Chloride	62	U	160	U	25	U	3.1	U	0	13			

Notes:
TO-15 analysis; Summa cannister
ND = Not detected above laboratory reporting limit
NA = Not Analyzed
U or UJ = Non Detect above laboratory reporting limit.
J = Estimated Concentration
FOD = Frequency of Detection
(1) Leak detection compound, 1,1-difluoroethane, detected in sample indicating compromised sample results for SV-4

Note: Reproduced from Table 7 in AMEC, 2009, Human Health Risk Assessment

TABLE I-5

ANALYTICAL RESULTS IN INFLUENT AND EFFLUENT SOIL VAPOR SAMPLES FOR SOIL VAPOR EXTRACTION SYSTEM[1,2]

Page-Trowbridge Ranch Landfill

Pinal County, Arizona

Concentrations shown in milligrams per cubic meter (mg/m^3)

	Influent to Treatment Vessels																										
Analyte / Sample Date	12/19/2008	2/13/2009	3/13/2009	4/8/2009	5/15/2009	6/19/2009	10/15/2009	11/30/2009	2/25/2010	3/31/2010	5/10/2010	5/28/2010	7/9/2010	8/12/2010	9/1/2010	10/7/2010	11/2/2010	12/13/2010	1/13/2011	3/24/2011	4/12/2011	5/18/2011	6/9/2011	7/7/2011	8/9/2011	10/4/2011	3/8/2012
1,1,1-Trichloroethane	2.7E+01 U	2.7E+00 U	2.7E+00 U	2.7E+00 U	1.1E+01 U	1.1E+01 U	1.1E+01 U	9.6E-01	1.6E+00 U	1.2E+00 U	1.1E+00 U	1.0E+00 U	6.2E-01 U	5.9E-01 U	5.8E-01 U	8.3E-01 U	4.6E-01	9.0E-01 U	7.1E-01 U	9.8E-01 U	1.3E+00 U	6.7E-01 U	9.6E-01 U	1.1E+00 U	1.3E+00 U	5.7E-01 U	1.5E+00 U
1,1,2,2-Tetrachloroethane	3.5E+01 U	3.6E+00 U	3.6E+00 U	3.5E+00 U	1.4E+01 U	1.4E+00 U	1.4E+01 U	7.0E-01 U	2.1E+00 U	1.5E+00 U	1.4E+00 U	1.3E+00 U	7.8E-01 U	7.5E-01 U	7.3E-01 U	1.0E+00 U	5.6E-01 U	1.1E+00 U	8.9E-01 U	1.2E+00 U	1.7E+00 U	8.5E-01 U	1.2E+00 U	1.4E+00 U	1.6E+00 U	7.1E-01 U	1.9E+00 U
1,1,2-Trichloroethane	2.7E+01 U	2.7E+00 U	2.7E+00 U	2.6E+01 U	1.1E+01 U	1.1E+01 U	1.1E+01 U	5.3E-01 U	1.6E+00 U	1.2E+00 U	1.1E+00 U	1.0E+00 U	6.2E-01 U	5.9E-01 U	5.8E-01 U	8.3E-01 U	4.3E-01 U	9.0E-01 U	7.1E-01 U	9.8E-01 U	1.3E+00 U	6.7E-01 U	9.6E-01 U	1.1E+00 U	1.3E+00 U	5.7E-01 U	1.5E+00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	5.8E+01	1.9E+01	5.7E+01	5.6E+01	5.2E+01	3.0E+01	7.5E+01	1.7E+01	2.2E+01	2.4E+01	8.6E+00	1.0E+01	1.8E+01	1.8E+01	1.6E+01	1.8E+01	7.9E+00	1.2E+01	1.2E+01	8.6E+00	1.2E+01	1.2E+01	9.2E+00	1.0E+01	8.2E+00	7.2E+00	1.1E+01
1,1-Dichloroethane	2.0E+01 U	2.0E+00 U	2.0E+00 U	2.0E+01 U	8.0E+00 U	8.0E+00 U	8.0E+00 U	1.6E+00	1.2E+00 U	1.0E+00	8.0E-01 U	7.8E-01 U	7.6E-01	7.4E-01	7.2E-01	8.6E-01	6.4E-01	6.7E-01 U	6.4E-01	7.2E-01 U	9.8E-01 U	5.5E-01	7.1E-01 U	8.3E-01 U	9.7E-01 U	4.2E-01 U	1.1E+00 U
1,1-Dichloroethene	2.0E+01 U	2.3E+00	6.7E+00	6.3E+00	7.9E+00 U	3.9E+00	8.7E+00	2.0E+00	2.1E+00	2.5E+00	7.9E-01 U	1.2E+00	1.4E+00	1.6E+00	1.6E+00	1.8E+00	7.9E-01	1.2E+00	1.3E+00	7.1E-01 U	1.4E+00	1.5E+00	7.2E-01	9.9E-01	9.5E-01 U	5.6E-01	1.1E+00 U
1,1-Difluoroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.9E+00 U
1,2,4-Trichlorobenzene	1.5E+02 U	1.5E+01 U	1.5E+01 U	1.5E+02 U	6.0E+01 U	6.1E+01 U	5.9E+01 U	3.0E+00 U	9.0E+00 UJ	6.4E+00 U	6.1E+00 U	5.7E+00 U	3.4E+00 U	3.2E+00 U	3.2E+00 U	4.5E+00 U	2.4E+00 U	4.9E+00 U	3.8E+00 U	5.3E+00 U	7.2E+00 U	3.7E+00 U	5.2E+00 U	6.1E+00 U	7.1E+00 U	3.1E+00 U	8.0E+00 U
1,2,4-Trimethylbenzene	2.5E+01 U	2.6E+00 U	2.4E+01	2.5E+00 U	1.0E+01 U	1.0E+01 U	1.0E+01 U	5.0E-01	1.5E+00 U	1.0E+00 U	1.0E+00 U	9.4E-01 U	5.6E-01 U	5.4E-01 U	5.2E-01 U	7.5E-01 U	4.0E-01 U	8.1E-01 U	6.4E-01 U	8.8E-01 U	1.2E+00 U	6.1E-01 U	8.7E-01 U	1.0E+00 U	1.2E+00 U	5.1E-01 U	1.3E+00 U
1,2-Dibromoethane (EDB)	3.8E+01 U	3.9E+00 U	3.9E+00 U	3.8E+01 U	1.5E+01 U	1.5E+00 U	1.5E+01 U	7.7E-01 U	2.3E+00 U	1.6E+00 U	1.5E+00 U	1.5E+00 U	8.8E-01 U	8.4E-01 U	8.2E-01 U	1.2E+00 U	6.1E-01 U	1.3E+00 U	1.0E+00 U	1.4E+00 U	1.8E+00 U	9.5E-01 U	1.4E+00 U	1.6E+00 U	1.8E+00 U	8.0E-01 U	2.1E+00 U
1,2-Dichlorobenzene	3.0E+01 U	3.1E+00 U	3.1E+00 U	3.0E+00 U	1.2E+01 U	1.2E+01 U	1.2E+01 U	6.0E-01 U	1.8E+00 U	1.3E+00 U	1.2E+00 U	1.2E+00 U	6.8E-01 U	6.6E-01 U	6.4E-01 U	9.1E-01 U	4.8E-01 U	9.9E-01 U	7.8E-01 U	1.1E+00 U	1.4E+00 U	7.4E-01 U	1.1E+00 U	1.2E+00 U	1.4E+00 U	6.2E-01 U	1.6E+00 U
1,2-Dichloroethane	2.0E+01 U	2.1E+00 U	6.5E+00	2.0E+01 U	1.0E+01	6.9E+00	1.8E+01	9.4E+00	4.9E+00	6.4E+00	4.5E+00	3.1E+00	4.4E+00	3.4E+00	4.0E+00	5.1E+00	4.5E+00	3.2E+00	4.4E+00	2.7E+00	2.8E+00	3.6E+00	3.0E+00	3.3E+00	2.7E+00	2.2E+00	5.9E+00
1,2-Dichloropropane	2.3E+01 U	2.4E+00 U	2.4E+00 U	3.8E+00	9.3E+00 U	9.3E+00 U	9.3E+00 U	2.0E+00	1.4E+00 U	1.4E+00	9.3E-01 U	8.8E-01 U	8.9E-01	9.0E-01	8.1E-01	1.1E+00	8.4E-01	7.6E-01 U	8.6E-01	8.3E-01 U	1.1E+00 U	7.6E-01	8.2E-01 U	9.5E-01 U	1.1E+00 U	5.0E-01	1.3E+00
1,3,5-Trimethylbenzene	2.5E+01 U	2.6E+00 U	5.5E+00	2.5E+01 U	1.0E+01 U	1.0E+00 U	1.0E+01 U	5.0E-01 U	1.5E+00 U	1.0E+00 U	1.0E+00 U	9.4E-01 U	5.6E-01 U	5.4E-01 U	5.2E-01 U	7.5E-01 U	4.0E-01 U	8.1E-01 U	6.4E-01 U	8.8E-01 U	1.2E+00 U	6.1E-01 U	8.7E-01 U	1.0E+00 U	1.2E+00 U	5.1E-01 U	1.3E+00 U
1,3-Butadiene	1.1E+01 U	1.1E+00 U	1.1E+00 U	1.1E+00 U	4.5E+00 U	4.5E+00 U	4.5E+00 U	2.2E-01 U	6.7E-01 U	4.7E-01 U	4.5E-01 U	4.2E-01 U	2.5E-01 U	2.4E-01 U	2.4E-01 U	3.4E-01 U	1.8E-01 U	3.6E-01 U	2.9E-01 U	4.0E-01 U	5.4E-01 U	2.7E-01 U	3.9E-01 U	4.5E-01 U	5.3E-01 U	2.3E-01 U	6.0E-01 U
1,3-Dichlorobenzene	3.0E+01 U	3.1E+00 U	3.1E+00 U	2.9E+01 U	1.2E+01 U	1.2E+00 U	1.2E+01 U	6.0E-01 U	1.8E+00 U	1.3E+00 U	1.2E+00 U	1.2E+00 U	6.8E-01 U	6.6E-01 U	6.4E-01 U	9.1E-01 U	4.8E-01 U	9.9E-01 U	7.8E-01 U	1.1E+00 U	1.4E+00 U	7.4E-01 U	1.1E+00 U	1.2E+00 U	1.4E+00 U	6.2E-01 U	1.6E+00 U
1,4-Dichlorobenzene	3.0E+01 U	3.1E+00 U	3.1E+00 U	2.9E+01 U	1.2E+01 U	1.2E+01 U	1.2E+01 U	6.0E-01 U	1.8E+00 U	1.3E+00 U	1.2E+00 U	1.2E+00 U	6.8E-01 U	6.6E-01 U	6.4E-01 U	9.1E-01 U	4.8E-01 U	9.9E-01 U	7.8E-01 U	1.1E+00 U	1.4E+00 U	7.4E-01 U	1.1E+00 U	1.2E+00 U	1.4E+00 U	6.2E-01 U	1.6E+00 U
1,4-Dioxane	--	--	--	--	--	--	--	--	4.4E+00 U	3.1E+00 U	3.0E+00 U	2.8E+00 U	1.6E+00 U	1.6E+00 U	1.5E+00 U	2.2E+00 U	1.2E+00 U	2.4E+00 U	1.9E+00 U	2.6E+00 U	3.5E+00 U	1.8E+00 U	2.5E+00 U	3.0E+00 U	3.4E+00 U	1.5E+00 U	3.9E+00 U
2,2,4-Trimethylpentane	2.3E+01 U	2.4E+00 U	2.4E+00 U	2.3E+01 U	9.3E+00 U	9.3E-01 U	9.3E+00 U	4.7E-01 U	1.4E+00 U	1.0E+00 U	9.3E-01 U	8.9E-01 U	5.3E-01 U	5.1E-01 U	5.0E-01 U	7.1E-01 U	3.7E-01 U	7.7E-01 U	6.0E-01 U	8.4E-01 U	1.1E+00 U	5.8E-01 U	8.2E-01 U	9.6E-01 U	1.1E+00 U	4.8E-01 U	1.3E+00 U
2-Butanone (MEK)	3.0E+01 U	3.0E+00 U	3.0E+00 U	3.0E+00 U	1.2E+01 U	1.2E+01 U	2.9E+00 U	1.8E+00	8.9E-01 U	6.3E-01 U	5.9E-01 U	5.6E-01 U	3.4E-01 U	3.2E-01 U	3.1E-01 U	4.5E-01 U	2.4E-01 U	4.9E-01 U	3.8E-01 U	2.1E+00 U	2.8E+00 U	1.4E+00 U	2.1E+00 U	2.4E+00 U	2.8E+00 U	1.2E+00 U	3.2E+00 U
2-Hexanone	4.2E+01 U	4.2E+00 U	4.2E+00 U	4.2E+00 U	1.7E+01 U	1.7E+00 U	1.6E+01 U	8.3E-01 U	5.0E+00 U	3.5E+00 U	3.4E+00 U	3.1E+00 U	1.9E+00 U	1.8E+00 U	1.7E+00 U	2.5E+00 U	1.3E+00 U	2.7E+00 U	2.1E+00 U	2.9E+00 U	4.0E+00 U	2.0E+00 U	2.9E+00 U	3.4E+00 U	3.9E+00 U	1.7E+00 U	4.4E+00 U
2-Propanol	5.0E+01 U	5.0E+00 U	5.0E+00 U	5.0E+01 U	2.0E+01 U	2.0E+01 U	2.0E+01 U	1.0E+00 U	3.0E+00 U	2.1E+00 U	2.0E+00 U	1.9E+00 U	1.1E+00 U	1.1E+00 U	1.0E+00 U	1.5E+00 U	8.0E-01 U	1.6E+00 U	1.3E+00 U	1.8E+00 U	2.4E+00 U	1.2E+00 U	1.7E+00 J	2.1E+00	2.4E+00 U	1.0E+00 U	2.7E+00 U
3-Chloropropene	1.6E+01 U	1.6E+00 U	1.6E+00 U	1.6E+01 U	6.3E+00 U	6.3E-01 U	6.3E+00 U	3.2E-01 U	3.8E+00 U	2.7E+00 U	2.6E+00 U	2.4E+00 U	1.4E+00 U	1.4E+00 U	1.3E+00 U	1.9E+00 U	1.0E+00 U	2.1E+00 U	1.6E+00 U	2.2E+00 U	3.0E+00 U	1.5E+00 U	2.2E+00 U	2.6E+00 U	3.0E+00 U	1.3E+00 U	3.4E+00 U
4-Ethyltoluene	2.5E+01 U	2.6E+00 U	3.7E+00	2.5E+01 U	1.0E+01 U	1.0E+01 U	1.0E+01 U	5.0E-01 U	1.5E+00 U	1.0E+00 U	1.0E+00 U	9.4E-01 U	5.6E-01 U	5.4E-01 U	5.2E-01 U	7.5E-01 U	4.0E-01 U	8.1E-01 U	6.4E-01 U	8.8E-01 U	1.2E+00 U	6.1E-01 U	8.7E-01 U	1.0E+00 U	1.2E+00 U	5.1E-01 U	1.3E+00 U
4-Methyl-2-pentanone (MIBK)	4.0E+01 U	4.0E+00 U	4.0E+00 U	4.0E+01 U	1.6E+01 U	1.6E+00 U	1.6E+01 U	8.0E-01 U	1.2E+00 U	8.8E-01 U	8.0E-01 U	7.8E-01 U	4.7E-01 U	4.5E-01 U	4.4E-01 U	6.2E-01 U	3.2E-01 U	6.8E-01 U	5.3E-01 U	7.3E-01 U	9.9E-01 UJ	5.0E-01 U	7.2E-01 U	8.4E-01 U	9.8E-01 U	4.3E-01 U	1.1E+00 U
Acetone	1.2E+02 U	1.2E+01 U	1.2E+01 U	1.2E+02 U	4.8E+01 U	4.8E+01 U	4.8E+01 U	3.1E+00	2.9E+00 U	2.0E+00 U	2.0E+00 U	1.8E+00 U	1.1E+00 U	1.3E+00	1.0E+00 U	1.4E+00 U	7.7E-01 U	1.6E+00 U	1.2E+00 U	1.7E+00 U	2.3E+00 U	1.2E+00 U	1.8E+00	1.9E+00 U	2.3E+00 U	9.9E-01 U	6.4E+00 U
alpha-Chlorotoluene	1.1E+02 U	1.1E+01 U	1.1E+01 U	1.1E+02 U	4.3E+01 U	4.3E+00 U	4.2E+01 U	2.1E+00 U	1.6E+00 U	1.1E+00 U	1.1E+00 U	9.9E-01 U	5.9E-01 U	5.6E-01 U	5.5E-01 U	7.9E-01 U	4.3E-01 U	8.5E-01 U	6.7E-01 U	9.3E-01 U	1.2E+00 U	6.4E-01 U	9.1E-01 U	1.1E+00 U	1.2E+00 U	5.4E-01 U	1.4E+00 U
Benzene	1.6E+01 U	1.6E+00 U	1.6E+00 U	1.6E+00 U	6.5E+00 U	6.5E+00 U	9.7E+00	8.4E-01	9.7E-01 U	6.8E-01 U	6.5E-01 U	6.1E-01 U	3.6E-01 U	3.5E-01 U	3.4E-01 U	4.8E-01 U	2.6E-01 U	5.3E-01 U	4.1E-01 U	5.7E-01 U	7.7E-01 U	3.9E-01 U	5.6E-01 U	6.5E-01 U	7.7E-01 U	3.3E-01 U	8.7E-01 U
Bromodichloromethane	3.3E+01 U	3.4E+00 U	3.4E+00 U	3.3E+01 U	1.3E+01 U	1.3E+00 U	1.3E+01 U	6.7E-01 U	2.0E+00 U	1.4E+00 U	1.3E+00 U	1.3E+00 U	7.6E-01 U	7.3E-01 U	7.1E-01 U	1.0E+00 U	5.3E-01 U	1.1E+00 U	8.7E-01 U	1.2E+00 U	1.6E+00 U	8.3E-01 U	1.2E+00 U	1.4E+00 U	1.6E+00 U	7.0E-01 U	1.8E+00 U
Bromoform	5.2E+01 U	5.3E+00 U	5.3E+00 U	5.2E+00 U	2.1E+01 U	2.1E+01 U	2.1E+01 U	1.0E+00 U	3.1E+00 U	2.2E+00 U	2.1E+00 U	2.0E+00 U	1.2E+00 U	1.1E+00 U	1.1E+00 U	1.6E+00 U	8.3E-01 U	1.7E+00 U	1.3E+00 U	1.8E+00 U	2.5E+00 U	1.3E+00 U	1.8E+00 U	2.1E+00 U	2.5E+00 U	1.1E+00 U	2.8E+00 U
Bromomethane	2.0E+01 U	2.0E+00 U	2.0E+00 U	2.0E+00 U	8.0E+00 U	8.0E-01 U	8.0E+00 U	4.0E-01 U	1.2E+00 U	8.3E-01 U	8.0E-01 U	7.4E-01 U	4.4E-01 U	4.2E-01 U	4.1E-01 U	5.9E-01 U	3.2E-01 U	6.4E-01 U	5.0E-01 U	7.0E-01 U	9.4E-01 U	4.8E-01 U	6.8E-01 U	8.0E-01 U	9.3E-01 U	4.0E-01 U	1.0E+01 U
Carbon disulfide	1.6E+01 U	1.6E+00 U	1.6E+00 U	1.6E+00 U	6.3E+00 U	6.3E+00 U	6.3E+00 U	3.1E-01 U	9.4E-01 U	6.7E-01 U	6.3E-01 U	6.0E-01 U	3.6E-01 U	3.4E-01 U	3.3E-01 U	4.7E-01 U	2.5E-01 U	5.1E-01 U	4.0E-01 U	2.2E+00 U	3.0E+00 U	3.8E-01 U	2.2E+00 U	2.6E+00 U	3.0E+00 U	1.3E+00 U	3.4E+00 U
Carbon tetrachloride	4.0E+01	1.4E+01	4.2E+01	4.7E+01	3.9E+01	2.8E+01	6.2E+01	1.8E+01	1.8E+01	2.2E+01	8.7E+00	9.3E+00	1.6E+01	1.4E+01	1.4E+01	1.7E+01	8.7E+00	1.2E+01	1.1E+01	7.7E+00	8.0E+00	1.2E+01	8.8E+00 J	7.0E+00	6.2E+00	6.3E+00	9.1E+00
Chlorobenzene	2.3E+01 U	2.4E+00 U	2.4E+00 U	2.3E+01 U	9.3E+00 U	9.3E+00 U	9.3E+00 U	4.7E-01 U	1.4E+00 U	9.8E-01 U	9.3E-01 U	8.8E-01 U	5.2E-01 U	5.0E-01 U	4.9E-01 U	7.0E-01 U	3.7E-01 U	7.6E-01 U	6.0E-01 U	8.2E-01 U	1.1E+00 U	5.7E-01 U	8.1E-01 U	9.4E-01 U	1.1E+00 U	4.8E-01 U	1.2E+00 U
Chloroethane	1.3E+01 U	1.4E+00 U	1.4E+00 U	1.3E+00 U	5.3E+00 U	5.3E-01 U	5.3E+00 U	2.7E-01 U	8.0E-01 U	5.6E-01 U	5.3E-01 U	5.0E-01 U	3.0E-01 U	2.9E-01 U	2.8E-01 U	4.0E-01 U	2.1E-01 U	4.4E-01 U	3.4E-01 U	1.9E+00 U	2.6E+00 U	1.3E+00 U	1.9E+00 U	2.2E+00 U	2.5E+00 U	1.1E+00 U	2.9E+00 U
Chloroform	9.5E+02	2.5E+02	8.0E+02	1.4E+03	8.5E+02	9.5E+02	9.0E+02	1.1E+03	5.2E+02	6.2E+02	3.2E+02	3.1E+02	4.4E+02	3.8E+02	3.8E+02	4.9E+02	3.1E+02	3.3E+02	3.7E+02	2.5E+02	2.9E+02	3.3E+02	2.5E+02	2.9E+02	2.3E+02	1.7E+02	4.1E+02
Chloromethane	1.0E+01 U	1.1E+00 U	1.1E+00 U	1.0E+01 U	4.2E+00 U	4.2E+00 U	4.2E+00 U	2.1E-01 U	2.5E+00 U	1.8E+00 U	1.7E+00 U	1.6E+00 U	9.4E-01 U	9.0E-01 U	8.8E-01 U	1.2E+00 U	6.7E-01 U	1.4E+00 U	1.1E+00 U	1.5E+00 U	2.0E+00 U	1.0E+00 U	1.4E+00 U	1.7E+00 U	2.0E+00 U	8.6E-01 U	5.6E+00 U
cis-1,2-Dichloroethene	2.0E+01 U	2.0E+00 U	2.0E+00 U	2.0E+01 U	8.0E+00 U	8.0E-01 U	8.0E+00 U	4.0E-01 U	1.2E+00 U	8.5E-01 U	8.0E-01 U	7.6E-01 U	4.5E-01 U	4.3E-01 U	4.2E-01 U	6.0E-01 U	3.2E-01 U	6.5E-01 U	5.1E-01 U	7.1E-01 U	9.6E-01 U	4.9E-01 U	7.0E-01 U	8.1E-01 U	9.5E-01 U	4.1E-01 U	1.1E+00 U
cis-1,3-Dichloropropene	2.3E+01 U	2.4E+00 U	2.4E+00 U	2.3E+00 U	9.3E+00 U	9.3E+00 U	9.3E+00 U	4.7E-01 U	1.4E+00 U	9.7E-01 U	9.3E-01 U	8.7E-01 U	5.2E-01 U	4.9E-01 U	4.8E-01 U	6.9E-01 U	3.7E-01 U	7.5E-01 U	5.9E-01 U	8.1E-01 U	1.1E+00 U	5.6E-01 U	8.0E-01 U	9.3E-01 U	1.1E+00 U	4.7E-01 U	1.2E+00 U
Cyclohexane	1.7E+01 U	1.7E+00 U	1.7E+00 U	1.6E+01 U	6.7E+00 U	6.7E-01 U	6.7E+00 U	7.0E-01	1.0E+00 U	7.4E-01 U	6.7E-01 U	6.6E-01 U	4.4E-01	7.0E-01	4.2E-01	5.2E-01 U	2.8E-01	5.7E-01 U	4.4E-01 U	6.2E-01 U	8.3E-01 U	4.2E-01 U	6.1E-01 U	7.0E-01 U	8.3E-01 U	3.6E-01 U	9.3E-01 U
Dibromochloromethane	4.3E+01 U	4.4E+00 U	4.4E+00 U	4.3E+00 U	1.7E+01 U	1.7E+01 U	1.7E+01 U	8.7E-01 U	2.6E+00 U	1.8E+00 U	1.7E+00 U	1.6E+00 U	9.7E-01 U	9.3E-01 U	9.1E-01 U	1.3E+00 U	6.9E-01 U	1.4E+00 U	1.1E+00 U	1.5E+00 U	2.1E+00 U	1.0E+00 U	1.5E+00 U	1.7E+00 U	2.0E+00 U	8.8E-01 U	2.3E+00 U
Dichlorodifluoromethane (Freon 12)	2.5E+01 U	2.5E+00	8.9E+00	8.9E+00	9.9E+00 U	6.4E+00	1.8E+01	3.2E+00	4.2E+00	5.3E+00	2.2E+00	3.1E+00	4.4E+00	4.7E+00	3.8E+00	4.8E+00	2.4E+00	5.3E+00	3.3E+00	2.7E+00	3.1E+00	4.8E+00	3.2E+00	3.0E+00	2.4E+00	2.2E+00	3.7E+00
Dichlorotetrafluoroethane (Freon 114)	3.5E+01 U	3.6E+00 U	3.6E+00 U	3.4E+01 U	1.4E+01 U	1.4E+01 U	1.4E+01 U	7.0E-01 U	2.1E+00 U	1.5E+00 U	1.4E+00 U	1.3E+00 U	8.0E-01 U	7.6E-01 U	7.4E-01 U	1.1E+00 U	5.6E-01 U	1.2E+00 U	9.0E-01 U	1.2E+00 U	1.7E+00 U	8.6E-01 U	1.2E+00 U	1.4E+00 U	1.7E+00 U	7.3E-01 U	1.9E+00 U
Ethanol	--	--	--	--	--	--	--	--	2.3E+00 U	1.6E+00 U	1.2E+01	1.4E+00 U	9.3E+00	8.2E-01 U	1.1E+01	1.1E+00 U	6.1E-01 U	1.2E+00 U	9.7E+00	1.3E+00 U	1.8E+00 U	9.3E-01 U	1.3E+00 U	1.5E+00 U	1.8E+00 U	3.8E+00	2.0E+00 U
Ethyl acetate	1.8E+01 U	1.8E+00 U	1.8E+00 U	1.8E+01 U	7.2E+00 U	7.2E-01 U	7.2E+00 U	3.6E-01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	2.2E+01 U	2.2E+00 U	2.2E+00 U	2.2E+00 U	8.7E+00 U	8.7E+00 U	8.7E+00 U	5.6E-01	1.3E+00 U	9.3E-01 U	8.7E-01 U	8.3E-01 U	4.9E-01 U	4.7E-01 U	4.6E-01 U	6.6E-01 U	3.5E-01 U	7.2E-01 U	5.6E-01 U	7.8E-01 U	1.0E+00 U	5.4E-01 U	7.7E-01 U	8.9E-01 U	1.0E+00 U	7.2E-01	1.2E+00 U
Heptane	2.0E+01 U	2.0E+00 U	2.0E+00 U	2.0E+01 U	8.0E+00 U	8.0E-01 U	8.0E+00 U	4.0E-01 U	1.2E+00 U	8.8E-01 U	8.0E-01 U	7.8E-01 U	4.7E-01 U	4.5E-01 U	4.4E-01 U	6.2E-01 U	3.2E-01 U	6.8E-01 U	5.3E-01 U	7.3E-01 U	9.9E-01 U	5.1E-01 U	7.2E-01 U	8.4E-01 U	9.8E-01 U	4.3E-01 U	1.1E+00 U
Hexachlorobutadiene	1.1E+02 U	1.1E+01 U	1.1E+01 U	1.1E+01 U	4.3E+01 U	4.4E+01 U	4.2E+01 U	2.2E+00 U	1.3E+01 U	9.1E+00 U	8.8E+00 U	8.2E+00 UJ	4.9E+00 U	4.6E+00 U	4.5E+00 U	6.5E+00 U	3.5E+00 U	7.0E+00 U	5.5E+00 U	7.6E+00 U	1.0E+01 U	5.3E+00 U	7.5E+00 U	8.7E+00 U	1.0E+01 U	4.4E+00 U	1.2E+01 U
Hexane	1.2E+02	1.9E+00 U	1.9E+00 U	1.8E+01 U	7.3E+00 U	7.3E-01 U	7.3E+00 U	3.7E-01 U	1.1E+00 U	7.5E-01 U	7.3E-01 U	6.7E-01 U	4.0E-01 U	6.5E-01	3.8E-01 U	5.4E-01 U	2.9E-01 U	5.8E-01 U	4.6E-01 U	6.3E-01 U	8.5E-01 U	4.4E-01 U	6.2E-01 U	7.2E-01 U	8.4E-01 U	3.7E-01 U	9.6E-01 U
Isopropylbenzene	--	--	--	--	--	--	--	--	1.5E+00 U	1.0E+00 U	1.0E+00 U	9.4E-01 U	5.6E-01 U	5.4E-01 U	5.2E-01 U	7.5E-01 U	4.0E-01 U	8.1E-01 U	6.4E-01 U	8.8E-01 U	1.2E+00 U	6.1E-01 U	8.7E-01 U	1.0E+00 U	1.2E+00 U	5.1E-01 U	1.3E+00 U
m,p-Xylene	4.3E+01 U	4.3E+00 U	8.7E+00	4.3E+01 U	1.7E+01 U	1.8E+01 U	1.7E+01 U	2.8E+00	1.3E+00 U	9.3E-01 U	8.7E-01 U	8.3E-01 U	5.0E-01 U	4.7E-01 U	4.6E-01 U	6.6E-01 U	3.5E-01 U	7.2E-01 U	5.6E-01 U	7.8E-01 U	1.0E+00 U	5.4E-01 U	7.7E-01 U	8.9E-01 U	1.0E+00 U	7.8E-01	1.2E+00 U
Methyl tert-butyl ether	3.7E+01 U	3.7E+00 U	3.7E+00 U	3.7E+00 U	1.5E+01 U	1.5E+00 U	1.4E+01 U	7.3E-01 U	1.1E+00 U	7.7E-01 U	7.3E-01 U	6.9E-01 U	4.1E-01 U	3.9E-01 U	3.8E-01 U	5.5E-01 U	2.9E-01 U	5.9E-01 U	4.7E-01 U	6.4E-01 U	8.7E-01 U	4.4E-01 U	6.4E-01 U	7.4E-01 U	8.6E-01 U	3.7E-01 U	9.8E-01 U
Methylene chloride	1.7E+01 U	1.8E+00 U	2.9E+00	3.5E+00	6.9E+00 U	6.9E+00 U	6.9E+00 U	2.4E+00	1.7E+00	2.2E+00	1.5E+00	1.4E+00	1.6E+00	6.2E+00	1.7E+00	2.2E+00	1.6E+00	1.2E+00	3.3E+00	1.1E+00	1.4E+00	1.6E+00	1.8E+00	1.5E+00	1.1E+00	1.1E+00	9.4E+00 U
n-Propylbenzene	--	--	--	--	--	--	--	--	1.5E+00 U	1.0E+00 U	1.0E+00 U	9.4E-01 U	5.6E-01 U	5.4E-01 U	5.2E-01 U	7.5E-01 U	4.0E-01 U	8.1E-01 U	6.4E-01 U	8.8E-01 U	1.2E+00 U	6.1E-01 U	8.7E-01 U	1.0E+00 U	1.2E+00 U	5.1E-01 U	1.3E+00 U
o-Xylene	2.2E+01 U	2.2E+00 U	3.9E+00	2.1E+01 U	8.7E+00 U	8.7E-01 U	8.7E+00 U	8.7E-01	1.3E+00 U	9.3E-01 U	8.7E-01 U	8.3E-01 U	5.0E-01 U	4.7E-01 U	4.6E-01 U	6.6E-01 U	3.5E-01 U	7.2E-01 U	5.6E-01 U	7.8E-01 U	1.0E+00 U	5.4E-01 U	7.7E-01 U	8.9E-01 U	1.0E+00 U	4.5E-01 U	1.2E+00 U
Propene	8.6E+00 U	8.8E-01 U	8.8E-01 U	8.4E+00 U	3.4E+00 U	3.4E+00 U	3.4E+00 U	1.7E-01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	2.2E+01 U	2.2E+00 U	2.2E+00 U	2.2E+00 U	8.7E+00 U	8.7E-01 U	8.7E+00 U	4.3E-01 U	1.3E+00 U	9.1E-01 U	8.7E-01 U	8.2E-01 U	4.8E-01 U	4.6E-01 U	4.5E-01 U	6.5E-01 U	3.5E-01 U	7.0E-01 U	5.5E-01 U	7.6E-01 U	1.0E+00 U	5.3E-01 U	7.5E-01 U	8.7E-01 U	1.0E+00 U	4.4E-01 U	1.2E+00
Tetrachloroethene	1.8E+02	1.4E+01	3.3E+01	6.3E+01	4.8E+01	2.3E+01	4.6E+01	2.0E+01	1.5E+01	1.7E+01	5.2E+00	3.9E+00	5.5E+00	4.8E+00	5.6E+00	5.7E+00	3.2E+00	2.8E+00	4.4E+00	2.2E+00	2.6E+00	3.8E+00	2.1E+00	2.8E+00	1.9E+00	1.6E+00	6.4E+00
Tetrahydrofuran	5.9E+01 U	5.9E+00 U	5.9E+00 U	5.9E+00 U	2.4E+01 U	2.4E+00 U	2.3E+01 U	1.2E+00 U	8.9E-01 U	6.3E-01 U	5.9E-01 U	5.6E-01 U	3.4E-01 U	3.2E-01 U	3.1E-01 U	4.5E-01 U	2.4E-01 U	4.9E-01 U	3.8E-01 U	5.3E-01 U	7.1E-01 U	3.6E-01 U	5.2E-01 U	6.0E-01 U	7.1E-01 U	3.1E-01 U	8.0E-01 U
Toluene	1.8E+01 U	1.9E+00 U	2.6E+00	1.8E+01 U	7.3E+00 U	7.3E+00 U	7.3E+00 U	3.4E+00	1.1E+00 U	8.1E-01 U	7.3E-01 U	7.2E-01 U	4.3E-01 U	4.1E-01 U	4.6E-01	5.7E-01 U	2.9E-01 U	6.2E-01 U	4.9E-01 U	6.7E-01 U	9.1E-01 U	4.6E-01 U	6.6E-01 U	7.7E-01 U	9.0E-01 U	3.9E-01 U	1.0E+00 U
trans-1,2-Dichloroethene	2.0E+01 U	2.0E+00 U	2.0E+00 U	2.0E+00 U	8.0E+00 U	8.0E-01 U	8.0E+00 U	4.0E-01 U	1.2E+00 U	8.5E-01 U	8.0E-01 U	7.6E-01 U	4.5E-01 U	4.3E-01 U	4.2E-01 U	6.0E-01 U	3.2E-01 U	6.5E-01 U	5.1E-01 U	7.1E-01 U	9.6E-01 U	4.9E-01 U	7.0E-01 U	8.1E-01 U	9.5E-01 U	4.1E-01 U	1.1E+00 U
trans-1,3-Dichloropropene	2.3E+01 U	2.4E+00 U	2.4E+00 U	2.3E+01 U	9.3E+00 U	9.3E+00 U	9.3E+00 U	4.7E-01 U	1.4E+00 U	9.7E-01 U	9.3E-01 U	8.7E-01 U	5.2E-01 U	4.9E-01 U	4.8E-01 U	6.9E-01 U	3.7E-01 U	7.5E-01 U	5.9E-01 U	8.1E-01 U	1.1E+00 U	5.6E-01 U	8.0E-01 U	9.3E-01 U	1.1E+00 U	4.7E-01 U	1.2E+00 U
Trichloroethene	3.7E+01	1.1E+01	3.1E+01	3.5E+01	4.5E+01	3.5E+01	4.6E+01	2.3E+01	1.6E+01	2.0E+01	8.3E+00	7.6E+00	9.5E+00	9.9E+00	1.1E+01	1.2E+01	6.7E+00	7.3E+00	1.4E+01	6.0E+00	6.7E+00	8.5E+00	5.7E+00	6.5E+00	5.1E+00	3.9E+00	1.1E+01
Trichlorofluoromethane (Freon 11)	3.5E+02	1.6E+02	5.0E+02	6.9E+02	4.5E+02	4.8E+02	7.4E+02	2.2E+02	2.4E+02	2.8E+02	9.1E+01	1.3E+02	1.9E+02	1.9E+02	1.8E+02	2.1E+02	9.1E+01	1.6E+02	1.3E+02	1.2E+02	1.3E+02	1.7E+02	1.3E+02	1.6E+02	1.0E+02	8.4E+01	1.2E+02 J
Vinyl acetate	3.5E+01 U	1.8E+00 U	1.8E+00 U	1.7E+01 U	7.0E+00 U	7.0E+00 U	7.0E+00 U	3.5E-01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide	2.2E+01 U	2.2E+00 U	2.2E+00 U	2.1E+01 U	8.8E+00 U	8.8E-01 U	8.8E+00 U	4.4E-01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	1.3E+01 U	1.3E+00 U	1.3E+00 U	1.3E+00 U	5.1E+00 U	5.1E+00 U	5.1E+00 U	2.6E-01 U	7.7E-01 U	5.5E-01 U	5.1E-01 U	4.9E-01 U	2.9E-01 U	2.8E-01 U	2.7E-01 U	3.9E-01 U	2.0E-01 U	4.2E-01 U	3.3E-01 U	4.6E-01 U	6.2E-01 U	3.2E-01 U	4.5E-01 U	5.2E-01 U	6.1E-01 U	2.6E-01 U	6.9E-01 U

TABLE I-5

ANALYTICAL RESULTS IN INFLUENT AND EFFLUENT SOIL VAPOR SAMPLES FOR SOIL VAPOR EXTRACTION SYSTEM[1,2]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in milligrams per cubic meter (mg/m^3)

	Effluent from Treatment Vessels																								
Analyte Sample Date	**12/19/2008**	**2/13/2009**	**4/8/2009**	**5/15/2009**	**6/19/2009**	**10/15/2009**	**11/30/2009**	**2/25/2010**	**3/31/2010**	**5/10/2010**	**5/28/2010**	**7/9/2010**	**8/12/2010**	**9/1/2010**	**10/7/2010**	**11/2/2010**	**12/13/2010**	**1/13/2011**	**4/12/2011**	**5/18/2011**	**6/9/2011**	**7/7/2011**	**8/9/2011**	**10/7/2011**	**3/8/2012**
1,1,1-Trichloroethane	5.3E-02 U	4.0E-03 U	2.7E+01 U	1.3E+00 U	5.3E-01 U	2.7E+00 U	5.2E-02 U	1.7E+00 U	1.2E+00 U	6.4E-03 U	1.4E-01 U	7.2E-02 U	2.2E-02 U	1.4E-02 U	2.8E-01 U	1.6E-01 U	2.2E-01 U	6.7E-01 U	1.0E+00 U	1.7E-01 U	3.5E-01 U	3.4E-01 U	2.4E-01 U	7.4E-03 U	8.0E-03 U
1,1,2,2-Tetrachloroethane	6.9E-02 U	5.3E-03 U	3.5E+01 U	1.8E+00 U	7.0E+00 U	3.5E+00 U	6.8E-02 U	2.2E+00 U	1.5E+00 U	8.4E-03 U	1.8E-01 U	9.1E-02 U	2.8E-02 U	1.8E-02 U	3.5E-01 U	2.1E-01 U	2.8E-01 U	8.4E-01 U	1.2E+00 U	2.1E-01 U	4.4E-01 U	4.2E-01 U	3.1E-01 U	9.4E-03 U	1.1E-02 U
1,1,2-Trichloroethane	5.3E-02 U	4.0E-03 U	2.7E+01 U	1.3E-01 U	5.3E-01 U	2.7E+00 U	5.2E-02 U	1.7E+00 U	1.2E+00 U	6.4E-03 U	1.4E-01 U	7.2E-02 U	2.2E-02 U	1.4E-02 U	2.8E-01 U	1.6E-01 U	2.2E-01 U	6.7E-01 U	1.0E+00 U	1.7E-01 U	3.5E-01 U	3.4E-01 U	2.4E-01 U	7.4E-03 U	8.0E-03 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.1E+02	1.1E+01	9.4E+01	2.0E+00 U	7.9E+00 U	1.7E+01	7.6E-02 U	2.9E+01	2.0E+01	9.4E-03 U	2.3E-01	1.0E-01 U	3.2E-02 U	2.0E-02 U	3.9E-01 U	2.4E-01 U	3.1E-01 U	2.0E+01	7.2E+00	2.6E+00	2.3E+00	1.1E+00	4.0E-01	1.0E-02 U	1.2E-02 U
1,1-Dichloroethane	1.2E+00	2.4E-02	2.0E+01 U	1.0E+00 U	4.0E-01 U	2.0E+00 U	3.9E-02 U	1.3E+00 U	1.3E+00	4.8E-03 U	1.1E-01 U	5.3E-02 U	1.7E-02 U	1.0E-02 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	1.9E+00	7.4E-01 U	1.9E-01	2.6E-01 U	2.5E-01 U	1.8E-01 U	5.5E-03 U	6.0E-03 U
1,1-Dichloroethene	9.5E+00	2.0E-01	2.0E+01 U	1.2E-01	4.0E+00 U	4.4E+00	3.8E-02 U	1.6E+00	3.8E+00	4.8E-03 U	1.0E-01 U	5.2E-02 U	1.6E-02 U	1.0E-02 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	1.6E+00	1.1E+00	7.9E-01	6.8E-01	5.1E-01	2.4E-01	5.4E-03 U	6.0E-03 U
1,1-Difluoroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7E-02 U
1,2,4-Trichlorobenzene	3.0E-01 U	2.3E-02 U	1.5E+02 U	7.5E-01 U	3.0E+00 U	1.5E+01 U	2.9E-01 U	9.5E+00 UJ	6.6E+00 U	3.6E-02 U	7.9E-01 U	3.9E-01 U	1.2E-01 U	7.6E-02 U	1.5E+00 U	9.0E-01 U	1.2E+00 U	3.6E+00 U	5.4E+00 U	9.2E-01 U	1.9E+00 U	1.8E+00 U	1.3E+00 U	4.0E-02 U	4.7E-02 U
1,2,4-Trimethylbenzene	5.0E-02 U	3.8E-03 U	2.5E+01 U	1.3E+00 U	5.0E+00 U	2.5E+00 U	4.9E-02 U	1.6E+00 U	1.1E+00 U	6.0E-03 U	1.3E-01 U	6.5E-02 U	2.0E-02 U	4.4E-02	2.5E-01 U	1.5E-01 U	2.0E-01 U	6.0E-01 U	9.0E-01 U	1.5E-01 U	3.2E-01 U	3.0E-01 U	2.2E-01 U	6.7E-03 U	7.0E-03 U
1,2-Dibromoethane (EDB)	7.6E-02 U	5.8E-03 U	3.8E+01 U	1.9E-01 U	7.7E-01 U	3.8E+00 U	7.4E-02 U	2.4E+00 U	1.7E+00 U	9.2E-03 U	2.0E-01 U	1.0E-01 U	3.2E-02 U	2.0E-02 U	3.9E-01 U	2.3E-01 U	3.2E-01 U	9.4E-01 U	1.4E+00 U	2.4E-01 U	5.0E-01 U	4.8E-01 U	3.4E-01 U	1.0E-02 U	1.2E-02 U
1,2-Dichlorobenzene	5.9E-02 U	4.5E-03 U	3.0E+01 U	1.5E+00 U	6.0E+00 U	3.0E+00 U	5.8E-02 U	1.9E+00 U	1.3E+00 U	7.2E-03 U	1.6E-01 U	7.9E-02 U	2.5E-02 U	1.5E-02 U	3.0E-01 U	2.0E-01	2.5E-01 U	7.4E-01 U	1.1E+00 U	1.8E-01 U	3.9E-01 U	3.7E-01 U	2.7E-01 U	8.2E-03 U	9.0E-03 U
1,2-Dichloroethane	4.0E-02 U	3.1E-03 U	2.0E+01 U	1.0E-01 U	5.7E-01	4.0E+00	4.0E-02 U	1.3E+00 U	9.0E-01 U	2.2E-02	7.8E-01	2.1E-01	1.7E-02 U	1.0E-02 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	5.0E-01 U	7.4E-01 U	1.2E-01 U	2.6E-01 U	2.6E-01	1.8E-01 U	5.5E-03 U	6.0E-03 U
1,2-Dichloropropane	4.6E-02 U	3.5E-03 U	2.3E+01 U	1.2E+00 U	4.7E+00 U	2.3E+00 U	4.5E-02 U	1.5E+00 U	1.0E+00 U	5.6E-03 U	1.5E-01	6.1E-02 U	1.9E-02 U	1.2E-02 U	2.3E-01 U	1.4E-01 U	1.9E-01 U	5.7E-01 U	8.5E-01 U	1.4E-01 U	3.0E-01 U	2.9E-01 U	2.1E-01 U	6.3E-03 U	7.0E-03 U
1,3,5-Trimethylbenzene	5.0E-02 U	3.8E-03 U	2.5E+01 U	1.3E-01 U	5.0E-01 U	2.5E+00 U	4.9E-02 U	1.6E+00 U	1.1E+00 U	6.0E-03 U	1.3E-01 U	6.5E-02 U	2.0E-02 U	1.4E-02	2.5E-01 U	1.5E-01 U	2.0E-01 U	6.0E-01 U	9.0E-01 U	1.5E-01 U	3.2E-01 U	3.0E-01 U	2.2E-01 U	6.7E-03 U	7.0E-03 U
1,3-Butadiene	2.2E-02 U	1.7E-03 U	1.1E+01 U	5.6E-01 U	2.2E-01 U	1.1E+00 U	2.2E-02 U	7.0E-01 U	4.9E-01 U	2.7E-03 U	5.9E-02 U	2.9E-02 U	9.1E-03 U	5.6E-03 U	1.1E-01 U	6.7E-02 U	9.1E-02 U	2.7E-01 U	4.0E-01 U	6.8E-02 U	1.4E-01 U	1.4E-01 U	9.9E-02 U	3.0E-03 U	3.0E-03 U
1,3-Dichlorobenzene	5.9E-02 U	4.5E-03 U	3.0E+01 U	1.5E-01 U	6.0E+00 U	3.0E+00 U	5.8E-02 U	1.9E+00 U	1.3E+00 U	7.2E-03 U	1.6E-01 U	7.9E-02 U	2.5E-02 U	1.5E-02 U	3.0E-01 U	1.8E-01 U	2.5E-01 U	7.4E-01 U	1.1E+00 U	1.8E-01 U	3.9E-01 U	3.7E-01 U	2.7E-01 U	8.2E-03 U	9.0E-03 U
1,4-Dichlorobenzene	5.9E-02 U	4.5E-03 U	3.0E+01 U	1.5E+00 U	6.0E-01 U	3.0E+00 U	5.8E-02 U	1.9E+00 U	1.3E+00 U	7.2E-03 U	1.6E-01 U	7.9E-02 U	2.5E-02 U	1.5E-02 U	3.0E-01 U	1.8E-01 U	2.5E-01 U	7.4E-01 U	1.1E+00 U	1.8E-01 U	3.9E-01 U	3.7E-01 U	2.7E-01 U	8.2E-03 U	9.0E-03 U
1,4-Dioxane	--	--	--	--	--	--	--	4.6E+00 U	3.2E+00 U	1.8E-02 U	3.8E-01 U	1.9E-01 U	6.0E-02 U	3.7E-02 U	7.3E-01 U	4.4E-01 U	5.9E-01 U	1.8E+00 U	2.6E+00 U	4.4E-01 U	9.3E-01 U	8.9E-01 U	6.5E-01 U	2.0E-02 U	2.3E-02 U
2,2,4-Trimethylpentane	4.6E-02 U	3.5E-03 U	2.3E+01 U	1.2E-01 U	4.7E+00 U	2.3E+00 U	4.5E-02 U	1.5E+00 U	1.0E+00 U	5.6E-03 U	1.2E-01 U	6.2E-02 U	1.9E-02 U	1.2E-02 U	2.4E-01 U	1.4E-01 U	1.9E-01 U	5.7E-01 U	8.6E-01 U	1.4E-01 U	3.0E-01 U	2.9E-01 U	2.1E-01 U	6.4E-03 U	7.0E-03 U
2-Butanone (MEK)	5.9E-02 U	4.5E-03 U	3.0E+01 U	1.5E+00 U	5.9E-01 U	3.0E+00 U	5.6E-02 U	9.4E-01 U	6.5E-01 U	5.3E-02	7.8E-02 U	5.0E-02	1.6E-01	7.0E-02	1.5E-01 U	8.9E-02 U	1.2E-01 U	3.6E-01 U	2.2E+00 U	3.6E-01 U	7.6E-01 U	7.3E-01 U	5.3E-01 U	1.6E-02 U	1.8E-02 U
2-Hexanone	8.3E-02 U	6.3E-03 U	4.2E+01 U	2.1E-01 U	8.3E+00 U	4.2E+00 U	7.9E-02 U	5.2E+00 U	3.6E+00 U	2.0E-02 U	4.4E-01 U	2.2E-01 U	6.8E-02 U	4.2E-02 U	8.3E-01 U	5.0E-01 U	6.7E-01 U	2.0E+00 U	3.0E+00 U	5.1E-01 U	1.0E+00 U	1.0E+00 U	7.3E-01 U	2.2E-02 U	2.6E-02 U
2-Propanol	1.0E-01 U	7.5E-03 U	5.0E+01 U	2.5E+00 U	1.0E+00 U	5.0E+00 U	9.8E-02 U	3.1E+00 U	2.2E+00 U	1.2E-02 U	2.6E-01 U	1.3E-01 U	4.1E-02 U	2.5E-02 U	5.0E-01 U	3.0E-01 U	4.0E-01 U	1.2E+00 U	1.8E+00 U	3.0E-01 U	6.3E-01 U	6.1E-01	4.4E-01 U	1.3E-02 U	1.5E-02 U
3-Chloropropene	3.1E-02 U	2.4E-03 U	1.6E+01 U	7.9E-02 U	3.2E-01 U	1.6E+00 U	3.1E-02 U	4.0E+00 U	2.8E+00 U	1.5E-02 U	3.3E-01 U	1.6E-01 U	5.2E-02 U	3.2E-02 U	6.3E-01 U	3.8E-01 U	5.1E-01 U	1.5E+00 U	2.3E+00 U	3.9E-01 U	8.1E-01 U	7.8E-01 U	5.6E-01 U	1.7E-02 U	2.0E-02 U
4-Ethyltoluene	5.0E-02 U	3.8E-03 U	2.5E+01 U	1.3E+00 U	5.0E+00 U	2.5E+00 U	4.9E-02 U	1.6E+00 U	1.1E+00 U	6.0E-03 U	1.3E-01 U	6.5E-02 U	2.0E-02 U	5.8E-02	2.5E-01 U	1.5E-01 U	2.0E-01 U	6.0E-01 U	9.0E-01 U	1.5E-01 U	3.2E-01 U	3.0E-01 U	2.2E-01 U	6.7E-03 U	7.0E-03 U
4-Methyl-2-pentanone (MIBK)	8.0E-02 U	6.0E-03 U	4.0E+01 U	2.0E-01 U	8.0E-01 U	4.0E+00 U	7.6E-02 U	1.3E+00 U	9.1E-01 U	4.8E-03	1.1E-01 U	5.4E-02 U	1.7E-02 U	1.0E-02 U	2.1E-01 U	1.2E-01 U	1.7E-01 U	5.0E-01 U	7.5E-01 UJ	1.3E-01 U	2.6E-01 U	2.5E-01 U	1.8E-01 U	5.6E-03 U	6.0E-03 U
Acetone	2.4E-01 U	1.8E-02 U	1.2E+02 U	6.0E+00 U	2.4E+01 U	1.2E+01 U	2.3E-01 U	3.0E+00 U	2.1E+00 U	7.5E-02	2.5E-01 U	1.2E-01 U	1.3E-01	1.5E-01	4.8E-01 U	2.9E-01 U	3.9E-01 U	1.2E+00 U	1.7E+00 U	2.9E-01 U	6.1E-01 U	5.9E-01 U	4.3E-01 U	1.4E-02	3.7E-02 U
alpha-Chlorotoluene	2.1E-01 U	1.6E-02 U	1.1E+02 U	5.3E-01 U	2.1E+00 U	1.1E+01 U	2.1E-01 U	1.6E+00 U	1.1E+00 U	6.4E-03 U	1.4E-01 U	6.8E-02 U	2.1E-02 U	1.3E-02 U	2.6E-01 U	1.6E-01 U	2.1E-01 U	6.4E-01 U	9.5E-01 U	1.6E-01 U	3.3E-01 U	3.2E-01 U	2.3E-01 U	7.1E-03 U	8.0E-03 U
Benzene	3.2E-02 U	2.4E-03 U	1.6E+01 U	8.1E-01 U	3.2E+00 U	1.6E+00 U	3.1E-02 U	1.0E+00 U	7.1E-01 U	1.5E-02	8.5E-02 U	4.2E-02 U	1.3E-02 U	6.9E-02	1.6E-01 U	9.7E-02 U	1.3E-01 U	3.9E-01 U	5.9E-01 U	9.9E-02 U	2.1E-01 U	2.0E-01 U	1.4E-01 U	4.4E-03 U	5.0E-03 U
Bromodichloromethane	6.6E-02 U	5.0E-03 U	3.3E+01 U	1.7E+00 U	6.7E-01 U	3.3E+00 U	6.5E-02 U	2.1E+00 U	1.5E+00 U	8.0E-03 U	1.8E-01 U	8.8E-02 U	2.8E-02 U	1.7E-02 U	3.4E-01 U	2.0E-01 U	2.7E-01 U	8.2E-01 U	1.2E+00 U	2.1E-01 U	4.3E-01 U	4.2E-01 U	3.0E-01 U	9.1E-03 U	1.0E-02 U
Bromoform	1.0E-01 U	7.8E-03 U	5.2E+01 U	2.6E+00 U	1.0E+01 U	5.2E+00 U	1.0E-01 U	3.3E+00 U	2.3E+00 U	1.2E-02 U	2.7E-01 U	1.4E-01 U	4.3E-02 U	2.6E-02 U	5.2E-01 U	3.1E-01 U	4.2E-01 U	1.3E+00 U	1.9E+00 U	3.2E-01 U	6.7E-01 U	6.4E-01 U	4.6E-01 U	1.4E-02 U	1.6E-02 U
Bromomethane	4.0E-02 U	3.0E-03 U	2.0E+01 U	1.0E-01 U	4.0E-01 U	2.0E+00 U	3.9E-02 U	1.2E+00 U	8.6E-01 U	4.8E-03 U	1.0E-01 U	5.1E-02 U	1.6E-02 U	9.9E-03 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	4.8E-01 U	7.1E-01 U	1.2E-01 U	2.5E-01 U	2.4E-01 U	1.7E-01 U	5.3E-03 U	6.1E-02 U
Carbon disulfide	3.1E-02 U	2.4E-03 U	1.6E+01 U	7.8E-01 U	3.1E+00 U	1.6E+00 U	3.0E-02 U	9.9E-01 U	6.9E-01 U	3.8E-03 U	8.3E-02 U	5.4E-02	1.1E-01	2.0E-01	1.6E-01 U	9.4E-02 U	1.3E-01 U	3.8E-01 U	2.3E+00 U	9.6E-02 U	8.0E-01 U	7.7E-01 U	5.6E-01 U	5.8E-02	2.0E-02 U
Carbon tetrachloride	6.1E-02 U	8.7E-03	3.1E+01 U	2.6E-01	2.1E+00	7.4E+00	6.0E-02 U	2.7E+00	2.1E+01	2.0E-02	8.6E-01	2.0E-01	2.6E-02 U	1.6E-02 U	3.2E-01 U	1.9E-01 U	2.6E-01 U	7.7E-01 U	1.2E+00	9.1E-01	8.8E-01	4.7E-01	3.0E-01	8.6E-03 U	9.0E-03 U
Chlorobenzene	4.6E-02 U	3.5E-03 U	2.3E+01 U	1.2E+00 U	4.7E+00 U	2.3E+00 U	4.5E-02 U	1.5E+00 U	1.0E+00 U	5.6E-03 U	1.2E-01 U	6.1E-02 U	1.9E-02 U	1.2E-02 U	2.3E-01 U	1.6E-01	1.9E-01 U	5.7E-01 U	8.4E-01 U	1.4E-01 U	3.0E-01 U	2.8E-01 U	2.1E-01 U	6.3E-03 U	7.0E-03 U
Chloroethane	2.6E-02 U	2.0E-03 U	1.3E+01 U	6.7E-02 U	2.7E+00 U	1.3E+00 U	2.6E-02 U	8.4E-01 U	5.8E-01 U	3.2E-03 U	7.0E-02 U	3.5E-02 U	1.1E-02 U	6.7E-03 U	1.3E-01 U	8.0E-02 U	1.1E-01 U	3.2E-01 U	1.9E+00 U	3.3E-01 U	6.8E-01 U	6.5E-01 U	4.7E-01 U	1.4E-02 U	1.6E-02 U
Chloroform	3.6E+02	3.9E+02	8.5E+02	1.5E+01	2.5E+02	9.5E+02	2.3E+00	5.0E+02	7.6E+02	1.6E+00	4.6E+01	1.0E+01	5.2E-02	1.8E-01	2.1E+00	1.4E-01 U	4.4E-01	4.0E+02	2.0E+02	1.1E+02	1.1E+02	8.0E+01	4.1E+01	6.7E-03 U	7.0E-03 U
Chloromethane	2.1E-02 U	1.6E-03 U	1.0E+01 U	5.2E-01 U	2.1E+00 U	1.0E+00 U	2.0E-02 U	2.6E+00 U	1.8E+00 U	1.0E-02 U	2.2E-01 U	1.1E-01 U	3.4E-02 U	2.1E-02 U	4.2E-01 U	2.5E-01 U	3.4E-01 U	1.0E+00 U	1.5E+00 U	2.6E-01 U	5.3E-01 U	5.1E-01 U	3.7E-01 U	1.1E-02 U	3.2E-02 U
cis-1,2-Dichloroethene	4.0E-02 U	3.0E-03 U	2.0E+01 U	1.0E-01 U	4.0E-01 U	2.0E+00 U	3.9E-02 U	1.3E+00 U	8.8E-01 U	4.8E-03 U	1.0E-01 U	5.2E-02 U	1.6E-02 U	1.0E-02 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	4.9E-01 U	7.3E-01 U	1.2E-01 U	2.6E-01 U	2.4E-01 U	1.8E-01 U	5.4E-03 U	6.0E-03 U
cis-1,3-Dichloropropene	4.6E-02 U	3.5E-03 U	2.3E+01 U	1.2E+00 U	4.7E-01 U	2.3E+00 U	4.5E-02 U	1.4E+00 U	1.0E+00 U	5.6E-03 U	1.2E-01 U	6.0E-02 U	1.9E-02 U	1.2E-02 U	2.3E-01 U	1.4E-01 U	1.9E-01 U	5.6E-01 U	8.3E-01 U	1.4E-01 U	2.9E-01 U	2.8E-01 U	2.0E-01 U	6.2E-03 U	7.0E-03 U
Cyclohexane	3.3E-02 U	1.0E-02	1.7E+01 U	8.3E-02 U	3.3E-01 U	1.7E+00 U	3.2E-02 U	1.1E+00 U	8.6E-01	4.0E-03 U	9.2E-02 U	4.5E-02 U	1.4E-02 U	1.5E-02	1.7E-01 U	1.0E-01 U	1.4E-01 U	4.2E-01 U	6.3E-01 U	1.1E-01 U	2.2E-01 U	2.1E-01 U	1.5E-01 U	4.7E-03 U	5.0E-03 U
Dibromochloromethane	8.6E-02 U	6.5E-03 U	4.3E+01 U	2.2E+00 U	8.7E+00 U	4.3E+00 U	8.4E-02 U	2.7E+00 U	1.9E+00 U	1.0E-02 U	2.3E-01 U	1.1E-01 U	3.5E-02 U	2.2E-02 U	4.3E-01 U	2.6E-01 U	3.5E-01 U	1.0E+00 U	1.6E+00 U	2.6E-01 U	5.5E-01 U	5.3E-01 U	3.8E-01 U	1.2E-02 U	1.3E-02 U
Dichlorodifluoromethane (Freon 12)	5.9E+00	3.7E-03 U	2.5E+01 U	1.2E+00 U	4.9E+00	2.5E+00 U	3.6E+00	5.1E+00	5.7E+00	5.9E-03 U	1.3E-01 U	4.3E+00	6.1E+00	4.4E+00	3.7E+00	2.5E+00	1.3E+01	2.9E+00	2.9E+00	3.0E+00	2.6E+00	2.2E+00	2.7E+00	1.8E+00	1.8E+00
Dichlorotetrafluoroethane (Freon 114)	6.9E-02 U	5.3E-03 U	3.5E+01 U	1.8E-01 U	7.0E-01 U	3.5E+00 U	6.8E-02 U	2.2E+00 U	1.5E+00 U	8.4E-03 U	1.8E-01 U	9.2E-02 U	2.9E-02 U	1.8E-02 U	3.5E-01 U	2.1E-01 U	2.9E-01 U	8.6E-01 U	1.3E+00 U	2.2E-01 U	4.5E-01 U	4.3E-01 U	3.1E-01 U	9.5E-03 U	1.1E-02 U
Ethanol	--	--	--	--	--	--	--	2.4E+00 U	1.7E+00 U	1.9E-02	2.0E-01 U	9.9E-02 U	3.1E-02	2.7E-01	3.8E-01 U	2.3E-01 U	3.1E-01 U	9.3E-01 U	1.4E+00 U	2.3E-01 U	4.9E-01 U	4.7E-01 U	3.4E-01 U	1.0E-02	1.2E-02 U
Ethyl acetate	3.6E-02 U	2.7E-03 U	1.8E+01 U	9.0E-02 U	3.6E+00 U	1.8E+00 U	3.5E-02 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	4.3E-02 U	3.3E-03 U	2.2E+01 U	1.1E+00 U	4.3E-01 U	2.2E+00 U	4.2E-02 U	1.4E+00 U	9.6E-01 U	5.2E-03 U	1.2E-01 U	5.7E-02 U	1.8E-02 U	9.9E-02	2.2E-01 U	1.3E-01 U	1.8E-01 U	5.3E-01 U	8.0E-01 U	1.3E-01 U	2.8E-01 U	2.7E-01 U	1.9E-01 U	5.9E-03 U	6.0E-03 U
Heptane	4.0E-02 U	3.0E-03 U	2.0E+01 U	1.0E-01 U	4.0E+00 U	2.0E+00 U	3.9E-02 U	1.3E+00 U	9.1E-01 U	4.8E-03 U	1.1E-01 U	5.4E-02 U	1.7E-02 U	2.6E-02	2.1E-01 U	1.2E-01 U	1.7E-01 U	5.0E-01 U	7.5E-01 U	1.3E-01 U	2.6E-01 U	2.5E-01 U	1.8E-01 U	5.6E-03 U	6.0E-03 U
Hexachlorobutadiene	2.2E-01 U	1.6E-02 U	1.1E+02 U	5.4E+00 U	2.2E+00 U	1.1E+01 U	2.1E-01 U	1.4E+01 U	9.4E+00 U	5.2E-02 U	1.1E+00 UJ	5.6E-01 U	1.8E-01 U	1.1E-01 U	2.2E+00 U	1.3E+00 U	1.7E+00 U	5.2E+00 U	7.8E+00 U	1.3E+00 U	2.8E+00 U	2.6E+00 U	1.9E+00 U	5.8E-02 U	6.7E-02 U
Hexane	3.6E-02 U	2.8E-03 U	1.8E+01 U	9.2E-02 U	3.7E-01 U	1.8E+00 U	3.6E-02 U	1.1E+00 U	7.8E-01 U	4.4E-03 U	9.4E-02 U	4.6E-02 U	1.4E-02 U	2.6E-02	1.8E-01 U	1.1E-01 U	1.4E-01 U	4.3E-01 U	6.5E-01 U	1.1E-01 U	2.3E-01 U	2.2E-01 U	1.6E-01 U	4.8E-03 U	5.0E-03 U
Isopropylbenzene	--	--	--	--	--	--	--	1.6E+00 U	1.1E+00 U	6.0E-03 U	6.1E-01	2.1E-01	1.1E-01	1.1E-01	2.5E-01 U	1.5E-01 U	2.0E-01 U	6.0E-01 U	9.0E-01 U	1.5E-01 U	3.2E-01 U	3.0E-01 U	2.2E-01 U	6.7E-03 U	7.0E-03 U
m,p-Xylene	8.7E-02 U	6.5E-03 U	4.3E+01 U	2.2E+00 U	8.7E+00 U	4.3E+00 U	8.2E-02 U	1.4E+00 U	9.6E-01 U	5.2E-03 U	1.2E-01 U	5.7E-02 U	1.8E-02 U	2.8E-01	2.2E-01 U	1.3E-01 U	1.8E-01 U	5.3E-01 U	8.0E-01 U	1.3E-01 U	2.8E-01 U	2.7E-01 U	1.9E-01 U	6.0E-03	6.0E-03 U
Methyl tert-butyl ether	7.3E-02 U	5.5E-03 U	3.7E+01 U	1.8E-01 U	7.3E+00 U	3.7E+00 U	7.0E-02 U	1.2E+00 U	8.0E-01 U	4.4E-03 U	9.6E-02 U	4.8E-02 U	1.5E-02 U	9.2E-03 U	1.8E-01 U	1.1E-01 U	1.5E-01 U	4.4E-01 U	6.6E-01 U	1.1E-01 U	2.3E-01 U	2.2E-01 U	1.6E-01 U	4.9E-03 U	5.0E-03 U
Methylene chloride	1.6E+00	2.3E-02	1.7E+01 U	1.4E-01	1.9E+00	3.5E+00	3.4E-02 U	2.0E+00	2.5E+00	5.2E-03	1.3E-01	4.6E-02 U	4.3E-02	9.1E-03	2.1E+00	1.3E+00	1.4E-01 U	2.7E+00	1.1E+00	7.3E-01	8.6E-01	7.4E-01	1.3E+00	5.5E-03	5.4E-02 U
n-Propylbenzene	--	--	--	--	--	--	--	1.6E+00 U	1.1E+00 U	6.0E-03 U	1.3E-01 U	6.5E-02 U	2.0E-02 U	1.6E-02	2.5E-01 U	1.5E-01 U	2.0E-01 U	6.0E-01 U	9.0E-01 U	1.5E-01 U	3.2E-01 U	3.0E-01 U	2.2E-01 U	6.7E-03 U	7.0E-03 U
o-Xylene	4.3E-02 U	3.3E-03 U	2.2E+01 U	1.1E+00 U	4.3E+00 U	2.2E+00 U	4.2E-02 U	1.4E+00 U	9.6E-01 U	5.2E-03 U	1.2E-01 U	5.7E-02 U	1.8E-02 U	7.7E-02	2.2E-01 U	1.3E-01 U	1.8E-01 U	5.3E-01 U	8.0E-01 U	1.3E-01 U	2.8E-01 U	2.7E-01 U	1.9E-01 U	5.9E-03 U	6.0E-03 U
Propene	1.7E-02 U	1.3E-03 U	8.6E+00 U	4.3E-02 U	1.7E-01 U	8.6E-01 U	6.5E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	4.3E-02 U	3.3E-03 U	2.2E+01 U	1.1E+00 U	4.3E-01 U	2.2E+00 U	4.2E-02 U	1.4E+00 U	9.4E-01 U	5.2E-03 U	1.1E-01 U	5.6E-02 U	1.8E-02 U	1.1E-02 U	2.2E-01 U	1.3E-01 U	1.7E-01 U	5.2E-01 U	7.8E-01 U	1.3E-01 U	2.7E-01 U	2.6E-01 U	1.9E-01 U	5.8E-03 U	6.0E-03 U
Tetrachloroethene	6.8E-02 U	5.1E-03 U	3.4E+01 U	1.7E-01 U	6.8E-01 U	3.4E+00 U	1.0E-01	2.2E+00 U	1.5E+00 U	8.2E-03 U	1.9E+00	7.1E-01	2.8E-02 U	2.2E-02	3.4E-01 U	2.0E-01 U	2.8E-01 U	8.3E-01 U	1.2E+00 U	2.1E-01 U	4.4E-01 U	4.2E-01 U	3.0E-01 U	9.2E-03 U	1.1E-02 U
Tetrahydrofuran	1.2E-01 U	8.9E-03 U	5.9E+01 U	3.0E+00 U	1.2E+01 U	5.9E+00 U	1.2E-01 U	9.4E-01 U	6.5E-01 U	1.5E-02	7.8E-02 U	5.9E-02	3.3E-01	1.1E-01	1.5E-01 U	8.9E-02 U	1.2E-01 U	3.6E-01 U	5.4E-01 U	9.1E-02 U	1.9E-01 U	1.8E-01 U	1.3E-01 U	4.0E-03 U	4.0E-03 U
Toluene	3.6E-02 U	2.8E-03 U	1.8E+01 U	9.2E-02 U	3.7E-01 U	1.8E+00 U	3.6E-02 U	1.2E+00 U	8.3E-01 U	1.3E-02	1.0E-01 U	5.0E-02 U	1.6E-02 U	6.0E-01	1.9E-01 U	1.1E-01 U	1.5E-01 U	4.6E-01 U	6.9E-01 U	1.2E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	7.0E-03	5.0E-03 U
trans-1,2-Dichloroethene	4.0E-02 U	3.0E-03 U	2.0E+01 U	1.0E+00 U	4.0E+00 U	2.0E+00 U	3.9E-02 U	1.3E+00 U	8.8E-01 U	4.8E-03 U	1.0E-01 U	5.2E-02 U	1.6E-02 U	1.0E-02 U	2.0E-01 U	1.2E-01 U	1.6E-01 U	4.9E-01 U	7.3E-01 U	1.2E-01 U	2.6E-01 U	2.4E-01 U	1.8E-01 U	5.4E-03 U	6.0E-03 U
trans-1,3-Dichloropropene	4.6E-02 U	3.5E-03 U	2.3E+01 U	1.2E-01 U	4.7E-01 U	2.3E+00 U	4.5E-02 U	1.4E+00 U	1.0E+00 U	5.6E-03 U	1.2E-01 U	6.0E-02 U	1.9E-02 U	1.2E-02 U	2.3E-01 U	1.4E-01 U	1.9E-01 U	5.6E-01 U	8.3E-01 U	1.4E-01 U	2.9E-01 U	2.8E-01 U	2.0E-01 U	6.2E-03 U	7.0E-03 U
Trichloroethene	5.1E-02 U	3.9E-03 U	2.6E+01 U	1.3E+00 U	5.2E+00 U	2.6E+00 U	5.7E-02	1.7E+00 U	1.2E+00 U	6.2E-03 U	2.2E+00	5.1E-01	2.2E-02 U	1.4E-02 U	2.7E-01 U	1.5E-01 U	2.2E-01 U	6.6E-01 U	9.9E-01 U	1.7E-01 U	3.5E-01 U	3.3E-01 U	2.4E-01 U	7.3E-03 U	8.0E-03 U
Trichlorofluoromethane (Freon 11)	6.9E+02	1.8E+01	4.1E+02	1.1E+01	2.7E+02	4.4E+02	1.1E-01	3.4E+02	2.0E+02	9.7E-02	3.0E+00	4.9E-01	2.3E-02 U	1.4E-02 U	2.1E+02	1.4E+02	8.7E+01	3.4E+02	1.4E+02	7.3E+01	5.2E+01	1.8E+01	7.7E+01	7.7E-03 U	8.0E-03 U
Vinyl acetate	7.0E-02 U	2.6E-03 U	1.8E+01 U	8.8E-02 U	3.5E-01 U	1.8E+00 U	3.4E-02 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl bromide	4.3E-02 U	3.3E-03 U	2.2E+01 U	1.1E+00 U	4.4E+00 U	2.2E+00 U	4.2E-02 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	2.5E-02 U	1.9E-03 U	1.3E+01 U	6.4E-02 U	2.6E-01 U	1.3E+00 U	2.5E-02 U	8.2E-01 U	5.7E-01 U	3.1E-03 U	6.8E-02 U	3.4E-02 U	1.1E-02	9.3E-03	1.3E-01 U	7.7E-02 U	1.0E-01 U	3.1E-01 U	4.7E-01 U	7.9E-02 U	1.6E-01 U	1.6E-01 U	1.1E-01 U	3.5E-03 U	4.0E-03 U

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   J = reported result is the estimated concentration.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at estimated reporting limit indicated.
2. Volatile organic compounds (VOCs) analyzed by EPA Method TO-15.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone

amec

TABLE I-6

ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES AT SOIL VAPOR MONITORING WELLS[1,2]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in miligrams per cubic meter (mg/m^3)

Analyte / Sample Date	SGS-SP 12/29/2003	SGS-SP 5/12/2006	SGS-SP-Dup[3] 5/12/2006	SGS-SP 11/15/2006	SGS-SP-Dup[3] 11/15/2006	SGS-SP 5/2/2007	SGS-SP[4] 12/19/2007	SGS-SP 4/9/2008	SGS-SP 10/20/2008	SGS-SP 4/15/2009	SGS-SP 11/18/2009	SGS-SP 10/13/2010	SGS-SP 4/20/2011	SGS-SP 10/18/2011	SGS-SP 11/3/2011
1,1,1-Trichloroethane	--	8.0E-01	7.5E-01	ND	ND	ND	2.6E+00 U	9.6E-01 U	1.3E+00 U	9.1E-02 U	6.9E-02 U	3.8E-02 U	4.0E-02 U	3.9E-02 U	4.7E-02 U
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	3.4E+00 U	1.3E+00 U	1.8E+00 U	1.2E-01 U	9.1E-02 U	5.0E-02 U	5.0E-02 U	4.9E-02 U	5.9E-02 U
1,1,2-Trichloroethane	--	--	--	--	--	--	--	9.6E-01 U	1.3E+00 U	2.8E-01 U	6.9E-02 U	3.8E-02 U	4.0E-02 U	3.9E-02 U	4.7E-02 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	3.5E+01	8.6E+01	9.4E+01	1.6E+01	2.1E+01		--	1.4E+01	1.7E+01	2.3E-01	3.1E-01	3.4E-01	3.6E-01	1.0E-01	6.8E-01
1,1-Dichloroethane	--	1.1E+00	1.2E+00	ND	ND	ND	1.9E+00 U	7.2E-01 U	1.0E+00 U	6.8E-02 U	5.2E-02 U	2.9E-02 U	3.0E-02 U	2.9E-02 U	3.5E-02 U
1,1-Dichloroethene	6.0E+00	1.3E+01	1.4E+01	3.4E+00	4.4E+00	ND	2.7E+00	1.7E+00	2.3E+00	2.1E-01 U	1.2E-01	7.5E-02	9.8E-02	8.7E-02	1.1E-01
1,1-Difluoroethane	--	--	--	--	--	--	1.9E+01	2.0E+00 U	2.9E+00 U	2.0E-01 U	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	3.8E-02 U	5.3E+00 U	7.4E+00 U	1.6E+00 U	3.8E-01 UJ	2.2E-01 U	2.2E-01 U	2.1E-01 U	2.5E-01 U
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	9.0E-01 U	1.3E+00 U	8.5E-02 U	6.5E-02 U	3.6E-02 U	3.6E-02 U	3.5E-02 U	4.2E-02 U
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	1.4E+00 U	1.4E+00 U	1.9E+00 U	1.3E-01 U	1.0E-01 U	5.5E-02 U	5.6E-02 U	5.5E-02 U	6.6E-02 U
1,2-Dichlorobenzene	--	--	--	--	--	--	--	1.1E+00 U	1.5E+00 U	1.0E-01 U	7.8E-02 U	4.3E-02 U	4.4E-02 U	4.3E-02 U	5.1E-02 U
1,2-Dichloroethane	--	4.0E-01	4.1E-01	ND	ND	ND	2.0E+00 U	7.4E-01 U	1.0E+00 U	1.1E-01	1.2E-01	6.9E-02	7.5E-02	5.9E-02	6.4E-02
1,2-Dichloropropane	--	1.1E+00	1.2E+00	ND	ND	ND	3.5E-03 U	8.4E-01 U	1.2E+00 U	7.9E-02 U	6.1E-02 U	3.4E-02 U	3.4E-02 U	3.3E-02 U	4.0E-02 U
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	9.0E-01 U	1.3E+00 U	8.5E-02 U	6.5E-02 U	3.6E-02 U	3.6E-02 U	3.5E-02 U	4.2E-02 U
1,3-Butadiene	--	--	--	--	--	--	--	4.0E-01 U	5.6E-01 U	1.2E-01 U	2.9E-02 U	1.6E-02 U	1.6E-02 U	1.6E-02 U	1.9E-02 U
1,3-Dichlorobenzene	--	--	--	--	--	--	--	1.1E+00 U	1.5E+00 U	1.0E-01 U	7.8E-02 U	4.3E-02 U	4.4E-02 U	4.3E-02 U	5.1E-02 U
1,3-Dichloropropane	--	--	--	--	--	--	8.6E+00 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	1.1E+00 U	1.5E+00 U	3.1E-01 U	7.8E-02 U	4.3E-02 U	4.4E-02 U	4.3E-02 U	5.1E-02 U
1,4-Dioxane	--	--	--	--	--	--	2.6E+00 U	2.6E+00 U	3.6E+00 U	2.5E-01 U	1.9E-01 U	1.1E-01 U	1.0E-01 U	1.0E-01 U	1.2E-01 U
2,2,4-Trimethylpentane	--	--	--	--	--	--	--	8.4E-01 U	1.2E+00 U	2.4E-01 U	6.1E-02 U	3.4E-02 U	3.4E-02 U	3.3E-02 U	4.0E-02 U
2,3-Dimethylbutane	--	8.1E-01	1.1E+00	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	8.6E-01	ND	ND	ND	ND	1.5E-03 U	5.3E-01 U	7.4E-01 U	5.0E-02 U	3.9E-02 U	2.1E-02 U	8.7E-02 U	8.4E-02 U	1.0E-01 U
2-Hexanone	--	--	--	--	--	--	8.3E-03 U	2.9E+00 U	4.1E+00 U	2.9E-01 U	2.1E-01 U	1.2E-01 U	1.2E-01 U	1.2E-01 U	1.4E-01 U
2-Methylpentane	--	4.2E-01	3.9E-01	--	--	--	--	--	--	--	--	--	--	--	--
2-Propanol	--	--	--	--	--	--	--	1.8E+00 U	2.5E+00 U	5.3E-01 U	1.3E-01 U	7.3E-02 U	7.2E-02 U	7.0E-02 U	8.4E-02 U
3-Chloropropene	--	--	--	--	--	--	3.2E-01 U	2.2E+00 U	3.1E+00 U	2.2E-01 U	1.6E-01 U	9.2E-02 U	9.2E-02 U	9.0E-02 U	1.1E-01 U
3-Methylpentane	--	6.0E-01	9.2E-01	--	--	--	--	--	--	--	--	--	--	--	--
4-Ethyltoluene	--	--	--	--	--	--	--	9.0E-01 U	1.3E+00 U	2.6E-01 U	6.5E-02 U	3.6E-02 U	3.6E-02 U	3.5E-02 U	4.2E-02 U
4-Methyl-2-pentanone (MIBK)	--	--	--	--	--	--	1.9E+00 U	7.2E-01 UJ	1.0E+00 U	6.8E-02 U	5.2E-02 U	2.9E-02 U	3.0E-02 U	2.9E-02 U	3.5E-02 U
Acetone	--	ND	ND	ND	ND	ND	4.6E+00 U	1.7E+00 U	2.4E+00 U	5.1E-01 U	1.2E-01 U	7.0E-02 U	7.0E-02 U	6.8E-02 U	1.3E-01
alpha-Chlorotoluene	--	--	--	--	--	--	--	9.6E-01 U	1.3E+00 U	9.1E-02 U	6.9E-02 U	3.8E-02 U	3.8E-02 U	3.7E-02 U	4.4E-02 U
Benzene	--	4.2E-01	3.6E-01	ND	ND	ND	1.3E+00 U	5.8E-01 U	8.1E-01 U	1.7E-01 U	4.2E-02 U	2.3E-02 U	2.3E-02 U	2.3E-02 U	2.7E-02 U
Bromodichloromethane	--	--	--	--	--	--	3.2E+00 U	1.2E+00 U	1.7E+00 U	1.1E-01 U	8.7E-02 U	4.8E-02 U	4.9E-02 U	4.8E-02 U	5.7E-02 U
Bromoform	--	--	--	--	--	--	5.0E+00 U	1.9E+00 U	2.6E+00 U	5.4E-01 U	1.3E-01 U	7.4E-02 U	7.6E-02 U	7.4E-02 U	8.8E-02 U
Bromomethane	--	--	--	--	--	--	1.9E+00 U	7.2E-01 U	1.0E+00 U	6.8E-02 U	5.2E-02 U	2.9E-02 U	2.8E-02 U	2.8E-02 U	3.3E-02 U
Carbon disulfide	ND	--	--	ND	ND	ND	1.6E-03 U	5.6E-01 U	7.8E-01 U	2.5E-01	3.8E-01	3.1E-01	4.2E-01	4.0E-01	2.5E-01
Carbon tetrachloride	1.8E+01	5.4E+01	5.4E+01	1.2E+01	1.7E+01	ND	1.6E+01	6.0E+00	8.7E+00	2.0E-01	3.2E-01	2.3E-01	2.9E-01	1.6E-01	4.9E-01
Chlorobenzene	--	--	--	--	--	--	9.3E-03 U	8.4E-01 U	1.2E+00 U	2.4E-01 U	6.1E-02 U	3.4E-02 U	3.4E-02 U	3.3E-02 U	3.9E-02 U
Chloroethane	--	--	--	--	--	--	1.3E+00 U	4.8E-01 U	6.7E-01 U	4.5E-02 U	3.5E-02 U	1.9E-02 U	7.8E-02 U	7.5E-02 U	9.0E-02 U
Chloroform	3.6E+02	8.5E+02	7.6E+02	4.0E+02	4.7E+02	1.1E+02	7.1E+02	1.6E+02	2.9E+02	2.1E+01	1.9E+01	1.0E+01	1.1E+01	1.2E+01	1.0E+01
Chloromethane	--	--	--	--	--	--	--	1.5E+00 U	2.1E+00 U	1.4E-01 J	1.6E-01	1.8E-01	1.5E-01	1.6E-01	1.0E-01
cis-1,2-Dichloroethene	--	--	--	--	--	--	1.9E+00 U	7.2E-01 U	1.0E+00 U	2.1E-01 U	5.2E-02 U	2.9E-02 U	2.9E-02 U	2.8E-02 U	3.4E-02 U
cis-1,3-Dichloropropene	--	--	--	--	--	--	8.4E-01 U	8.4E-01 U	1.2E+00 U	7.9E-02 U	6.1E-02 U	3.4E-02 U	3.3E-02 U	3.2E-02 U	3.9E-02 U
Cyclohexane	--	1.4E+00	2.1E+00	ND	ND	ND	--	6.0E-01 U	8.3E-01 U	1.7E-01 U	4.3E-02 U	2.4E-02 U	2.5E-02 U	2.5E-02 U	2.9E-02 U
Cyclohexanone	--	4.4E-01	ND	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopentane	--	2.2E-01	3.7E-01	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	4.5E-01 U	1.6E+00 U	2.2E+00 U	1.5E-01 U	1.1E-01 U	6.2E-02 U	6.3E-02 U	6.1E-02 U	7.3E-02 U
Dichlorodifluoromethane (Freon 12)	--	8.9E+00	1.0E+01	ND	ND	ND	8.9E-03 U	2.6E+00	1.2E+00 U	2.6E-01 U	6.4E-02 U	6.9E-02	7.2E-02	3.5E-02 U	2.2E-01
Dichlorotetrafluoroethane (Freon 114)	--	--	--	--	--	--	--	1.3E+00 U	1.8E+00 U	1.2E-01 U	9.1E-02 U	5.0E-02 U	5.1E-02 U	5.0E-02 U	6.0E-02 U
Ethanol	--	--	--	--	--	--	--	1.3E+00 U	1.9E+00 U	1.3E-01 U	9.8E-02 U	5.6E-02 U	5.5E-02 U	5.4E-02 U	6.4E-02 U
Ethyl acetate	--	--	--	ND	ND	ND	3.6E-01 U	2.5E+00 U	3.6E+00 U	7.6E-01 U	--	--	--	--	--
Ethylbenzene	--	ND	ND	ND	ND	ND	2.1E+00 U	7.8E-01 U	1.1E+00 U	7.4E-02 U	5.6E-02 U	3.1E-02 U	4.5E-02	3.1E-02 U	3.7E-02 U
Heptane	--	ND	ND	ND	ND	ND	--	7.2E-01 U	1.0E+00 U	2.1E-01 U	5.2E-02 U	2.9E-02 U	3.0E-02 U	2.9E-02 U	3.5E-02 U
Hexachlorobutadiene	--	--	--	--	--	--	2.2E-02 U	7.6E+00 U	1.1E+01 U	7.5E-01 U	5.5E-01 U	3.1E-01 U	3.1E-01 U	3.0E-01 U	3.6E-01 U
Hexane	--	ND	ND	ND	ND	ND	--	6.6E-01 U	9.2E-01 U	6.2E-02 U	4.8E-02 U	2.6E-02 U	2.6E-02 U	2.5E-02 U	3.0E-02 U
Isobutane	--	ND	2.6E-01	--	--	--	--	--	--	--	--	--	--	--	--
Isopentane (2-methylbutane)	--	2.5E-01	ND	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--		9.0E-01 U	1.3E+00 U	8.5E-02 U	6.5E-02 U	3.6E-02 U	3.6E-02 U	3.5E-02 U	4.2E-02 U
m,p-Xylene	--	--	--	--	--	--	2.1E+00 U	7.8E-01 U	1.1E+00 U	7.4E-02	5.6E-02 U	3.1E-02 U	1.9E-01	3.1E-02 U	3.7E-02 U
Methyl tert-butyl ether	--	--	--	--	--	--	1.8E+00 U	6.6E-01 U	9.2E-01 U	1.9E-01 U	4.8E-02 U	2.6E-02 U	2.6E-02 U	2.6E-02 U	3.1E-02 U
Methylene chloride	ND	1.7E-01	2.0E-01	ND	ND	ND	6.2E-01 U	6.2E-01 U	8.7E-01 U	5.9E-02 U	4.5E-02 U	3.3E-02	2.6E-02 U	2.9E-02	3.0E-02 U
n-Propylbenzene	--	--	--	--	--	--	2.5E-03 U	9.0E-01 U	1.3E+00 U	2.6E-01 U	6.5E-02 U	3.6E-02 U	3.6E-02 U	3.5E-02 U	4.2E-02 U
o-Xylene	--	--	--	--	--	--	2.1E+00 U	7.8E-01 U	1.1E+00 U	7.4E-02 U	5.6E-02 U	3.1E-02 U	4.8E-02	3.1E-02 U	3.7E-02 U
Propene	--	ND	ND	ND	ND	ND	--	1.2E+00 U	1.7E+00 U	1.2E-01 U	--	--	--	--	--
Styrene	--	ND	ND	ND	ND	ND	5.2E-03 U	7.8E-01 U	1.1E+00 U	2.3E-01 U	5.6E-02 U	3.1E-02 U	3.1E-02 U	3.0E-02 U	3.6E-02 U
Sulfur Dioxide	--	1.1E-01	8.4E-02	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	3.3E+01	8.9E+01	8.9E+01	1.2E+01	1.4E+01	3.7E+00	1.8E+01	4.2E+00	8.2E+00	2.3E-01	3.4E-01	2.3E-01	3.0E-01	2.2E-01	2.3E-01
Tetrahydrofuran	--	4.5E+00	ND	ND	ND	ND	3.9E-03 U	5.3E-01 U	7.4E-01 U	1.5E-01 U	3.9E-02 U	2.1E-02 U	2.5E-02	2.1E-02 U	2.5E-02 U
Toluene	--	ND	ND	ND	ND	ND	1.8E+00 U	6.6E-01 U	9.2E-01 U	6.2E-02 U	4.8E-02 U	2.6E-02 U	2.8E-02 U	2.7E-02 U	3.2E-02 U
trans-1,2-Dichloroethene	--	--	--	--	--	--	2.1E-01 U	7.2E-01 U	1.0E+00 U	2.1E-01 U	5.2E-02 U	2.9E-02 U	2.9E-02 U	2.8E-02 U	3.4E-02 U
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	8.4E-01 U	1.2E+00 U	7.9E-02 U	6.1E-02 U	3.4E-02 U	3.3E-02 U	3.2E-02 U	3.9E-02 U
Trichloroethene	1.5E+01	3.7E+01	3.7E+01	1.3E+01	1.7E+01	2.7E+00	1.2E+01	4.6E+00	7.7E+00	3.2E-01	4.3E-01	3.6E-01	4.5E-01	3.6E-01	3.7E-01
Trichlorofluoromethane (Freon 11)	3.3E+02	8.0E+02	8.0E+02	1.4E+02	1.9E+02	1.3E+01	1.1E-02	1.5E+02	1.6E+02	3.3E+00	4.9E+00	4.7E+00	4.6E+00	1.9E+00	8.9E+00
Vinyl acetate	--	--	--	--	--	--	2.8E-02 U	2.5E+00 U	3.5E+00 U	7.4E-01 U	--	--	--	--	--
Vinyl bromide	--	--	--	--	--	--	--	3.1E+00 U	4.3E+00 U	3.0E-01 U	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	1.2E+00 U	4.6E-01 U	6.4E-01 U	1.3E-01 U	3.3E-02 U	1.8E-02 U	1.9E-02 U	1.8E-02 U	2.2E-02 U
Xylenes, total	--	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--

Analyte / Sample Date	SGS-SP 12/22/2011	SGS-SP 1/24/2012	SGS-SP 3/1/2012	SGS-SP 3/12/2012	SGS-SP 3/29/2012	SGS-Well 12/29/2003	SGS-Well 5/12/2006	SGS-Well 11/15/2006	SGS-Well 4/25/2007	SGS-Well 11/3/2011	SGS-Well 12/22/2011	SGS-well 3/5/2012	SGS-well-DUP 3/5/2012	SGS-Well 3/8/2012	SGS-Well-DUP 3/8/2012	SGS-Well 3/12/2012	SGS-WELL 3/29/2012
1,1,1-Trichloroethane	6.5E-02	2.5E-01 U	1.6E-01	3.8E-02 U	2.0E-02 U	--	7.5E-01	ND	ND	9.2E-01 U	3.0E-02 U	1.3E+00 U	3.9E-01 U	1.9E+00 U	1.9E+00 U	1.1E+00 U	1.2E+00 U
1,1,2,2-Tetrachloroethane	5.5E-02 U	3.2E-01 U	1.1E-01 U	4.7E-02 U	2.4E-02 U	--	--	--	--	1.2E+00 U	3.7E-02 U	1.6E+00 U	4.9E-01 U	2.4E+00 U	2.4E+00 U	1.3E+00 U	1.5E+00 U
1,1,2-Trichloroethane	4.4E-02 U	2.5E-01 U	9.0E-02 U	3.8E-02 U	2.0E-02 U	--	--	--	--	9.2E-01 U	3.0E-02 U	1.3E+00 U	3.9E-01 U	1.9E+00 U	1.9E+00 U	1.1E+00 U	1.2E+00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	2.5E+00	4.6E+00	4.6E+00	1.2E-01	6.5E-02	4.6E+01	9.4E+01	7.3E+01	3.8E+00	5.4E+00	2.5E-01	7.4E+00	7.2E+00	1.1E+01	1.1E+01	9.6E+00	9.9E+00
1,1-Dichloroethane	4.0E-02	1.9E-01 U	1.3E-01	2.8E-02 U	1.4E-02 U	--	1.3E+00	ND	ND	6.8E-01 U	2.2E-02 U	9.7E-01 U	2.9E-01 U	1.4E+00 U	1.4E+00 U	7.9E-01 U	9.1E-01 U
1,1-Dichloroethene	2.6E-01	3.8E-01	6.4E-01	5.8E-02	4.4E-02	7.3E+00	1.5E+01	ND	ND	6.7E-01 U	2.8E-02	9.5E-01 U	8.6E-01	1.4E+00 U	1.4E+00 U	9.5E-01 J	8.9E-01
1,1-Difluoroethane	8.7E-02 U	5.0E-01 U	1.8E-01 U	7.4E-02 U	3.9E-02 U	--	--	--	--	--	2.0E+01 J	2.6E+00 U	7.7E-01 U	3.8E+00 U	3.7E+00 U	2.1E+00 U	2.4E+00 U
1,2,4-Trichlorobenzene	2.4E-01 U	1.4E+00 U	4.9E-01 U	2.0E-01 U	1.1E-01 U	--	--	--	--	5.0E+00 U	1.6E-01 U	7.1E+00 U	2.1E+00 U	1.0E+01 U	1.0E+01 U	5.8E+00 U	6.6E+00 U
1,2,4-Trimethylbenzene	4.0E-02 U	2.3E-01 U	3.3E-01 U	3.4E-02 U	1.8E-02 U	--	--	--	--	8.2E-01 U	2.7E-02 U	1.2E+00 U	1.4E+00 U	1.7E+00 U	1.7E+00 U	9.6E-01 U	1.1E+00 U
1,2-Dibromoethane (EDB)	6.2E-02 U	3.6E-01 U	1.3E-01 U	5.3E-02 U	2.8E-02 U	--	--	--	--	1.3E+00 U	4.2E-02 U	1.8E+00 U	5.4E-01 U	2.7E+00 U	2.6E+00 U	1.5E+00 U	1.7E+00 U
1,2-Dichlorobenzene	4.8E-02 U	2.8E-01 U	1.0E-01 U	4.1E-02 U	2.2E-02 U	--	--	--	--	1.0E+00 U	3.3E-02 U	1.4E+00 U	4.3E-01 U	2.1E+00 U	2.1E+00 U	1.2E+00 U	1.3E+00 U
1,2-Dichloroethane	1.1E-01	1.9E-01 U	3.1E-01	7.2E-02	5.0E-02	--	4.5E-01	ND	ND	3.0E+00	1.0E-01	3.0E+00	2.5E+00	5.4E+00	5.5E+00	2.8E+00	3.7E+00
1,2-Dichloropropane	3.7E-02 U	2.1E-01 U	1.0E-01	3.2E-02 U	1.6E-02 U	--	1.1E+00	ND	ND	7.8E-01 U	2.5E-02 U	1.1E+00 U	4.6E-01	1.6E+00 U	1.6E+00 U	9.0E-01 U	1.0E+00 U
1,3,5-Trimethylbenzene	4.0E-02 U	2.3E-01 U	8.2E-02 U	3.4E-02 U	1.8E-02 U	--	--	--	--	8.2E-01 U	2.7E-02 U	1.2E+00 U	3.5E-01 U	1.7E+00 U	1.7E+00 U	9.6E-01 U	1.1E+00 U
1,3-Butadiene	1.8E-02 U	1.0E-01 U	3.7E-02 U	1.5E-02 U	7.9E-03 U	--	--	--	--	3.7E-01 U	1.2E-02 U	5.3E-01 U	1.6E-01 U	7.8E-01 U	7.6E-01 U	4.3E-01 U	5.0E-01 U
1,3-Dichlorobenzene	4.8E-02 U	2.8E-01 U	1.0E-01 U	4.1E-02 U	2.2E-02 U	--	--	--	--	1.0E+00 U	3.3E-02 U	1.4E+00 U	4.3E-01 U	2.1E+00 U	2.1E+00 U	1.2E+00 U	1.3E+00 U
1,3-Dichloropropane	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene	4.8E-02 U	2.8E-01 U	1.0E-01 U	4.1E-02 U	2.2E-02 U	--	--	--	--	1.0E+00 U	3.3E-02 U	1.4E+00 U	4.3E-01 U	2.1E+00 U	2.1E+00 U	1.2E+00 U	1.3E+00 U
1,4-Dioxane	1.2E-01 U	6.7E-01 U	2.4E-01 U	9.9E-02 U	5.2E-02 U	--	--	--	--	2.4E+00 U	7.8E-02 U	3.4E+00 U	1.0E+00 U	5.1E+00 U	5.0E+00 U	2.8E+00 U	3.2E+00 U
2,2,4-Trimethylpentane	3.8E-02 U	2.2E-01 U	7.8E-02 U	3.2E-02 U	1.7E-02 U	--	--	--	--	7.8E-01 U	2.5E-02 U	1.1E+00 U	1.0E+00	1.6E+00 U	1.6E+00 U	9.1E-01 U	1.0E+00 U
2,3-Dimethylbutane	--	--	--	--		--	1.3E+00	--	--	--	--	--	--	--	--	--	
2-Butanone (MEK)	9.5E-02 U	5.5E-01 U	2.0E-01 U	8.1E-02 U	4.2E-02 U	--	ND	ND	ND	2.0E+00 U	6.4E-02 U	2.8E+00 U	8.4E-01 U	4.2E+00 U	4.0E+00 U	2.3E+00 U	2.6E+00 U
2-Hexanone	1.3E-01 U	7.6E-01 U	2.7E-01 U	1.1E-01 U	5.9E-02 U	--	--	--	--	2.8E+00 U	8.9E-02 U	3.9E+00 U	1.2E+00 U	5.8E+00 U	5.6E+00 U	3.2E+00 U	3.7E+00 U
2-Methylpentane	--	--	--	--		--	6.0E-01	--	--	--	--	--	--	--	--	--	
2-Propanol	7.9E-02 U	4.6E-01 U	1.6E-01 U	6.8E-02 U	3.5E-02 U	--	--	--	--	1.6E+00 U	5.4E-02 U	3.2E+00	7.0E-01 U	4.6E+00	4.7E+00	1.9E+00 U	2.2E+00 U
3-Chloropropene	1.0E-01 U	5.8E-01 U	2.1E-01 U	8.6E-02 U	4.5E-02 U	--	--	--	--	2.1E+00 U	6.8E-02 U	3.0E+00 U	8.9E-01 U	4.4E+00 U	4.3E+00 U	2.4E+00 U	2.8E+00 U
3-Methylpentane	--	--	--	--		--	9.9E-01	--	--	--	--	--	--	--	--	--	
4-Ethyltoluene	4.0E-02 U	2.3E-01 U	8.2E-02 U	3.4E-02 U	1.8E-02 U	--	--	--	--	8.2E-01 U	2.7E-02 U	1.2E+00 U	3.5E-01 U	1.7E+00 U	1.7E+00 U	9.6E-01 U	1.1E+00 U
4-Methyl-2-pentanone (MIBK)	3.3E-02 U	1.9E-01 U	6.8E-02 U	2.8E-02 U	1.5E-02	--	--	--	--	6.9E-01 U	2.2E-02 U	9.8E-01 U	2.9E-01 U	1.4E+00 U	1.4E+00 U	8.0E-01 U	9.2E-01 U
Acetone	7.7E-02 J	4.4E-01 U	1.6E-01 U	1.6E-01 U	8.5E-02 U	--	ND	ND	ND	1.6E+00 U	5.2E-02 U	5.7E+00 U	6.7E-01 U	8.4E+00 U	8.2E+00 U	4.6E+00 U	5.3E+00 U
alpha-Chlorotoluene	4.2E-02 U	2.4E-01 U	3.4E-01 U	3.6E-02 U	1.8E-02 U	--	--	--	--	8.7E-01 U	2.8E-02 U	1.2E+00 U	1.5E+00 U	1.8E+00 U	1.8E+00 U	1.0E+00 U	1.2E+00 U
Benzene	2.6E-02 U	1.5E-01 U	5.3E-02 U	2.2E-02 U	1.1E-02 U	--	3.9E-01	ND	ND	5.4E-01 U	1.7E-02 U	7.7E-01 U	2.3E-01 U	1.1E+00 U	1.1E+00 U	6.2E-01 U	7.2E-01 U
Bromodichloromethane	5.4E-02 U	3.1E-01 U	1.1E-01 U	4.6E-02 U	2.4E-02 U	--	--	--	--	1.1E+00 U	3.6E-02 U	1.6E+00 U	4.8E-01 U	2.4E+00 U	2.3E+00 U	1.3E+00 U	1.5E+00 U
Bromoform	8.3E-02 U	4.8E-01 U	6.9E-01 U	7.1E-02 U	3.7E-02 U	--	--	--	--	1.7E+00 U	5.6E-02 U	2.5E+00 U	2.9E+00 U	3.6E+00 U	3.6E+00 U	2.0E+00 U	2.3E+00 U
Bromomethane	3.1E-02 U	1.8E-01 U	6.4E-02 U	2.7E-01 U	1.4E-01 U	--	--	--	--	6.5E-01 U	2.1E-02 U	9.3E+00 U	2.8E-01 U	1.4E+01 U	1.3E+01 U	7.6E+00 U	8.7E+00 U
Carbon disulfide	8.4E-02	7.8E-01	1.9E-01	2.3E-01 J	2.0E-01	ND	--	--	ND	2.1E+00 U	6.8E-02 U	3.0E+00 U	2.2E-01 U	4.4E+00 U	4.3E+00 U	2.4E+00 U	2.8E+00 U
Carbon tetrachloride	1.8E+00	3.1E+00	4.1E+00	1.4E-01	1.2E-01	2.4E+01	5.1E+01	4.0E+01	2.7E+00	5.9E+00	2.3E-01	7.0E+00	7.0E+00	8.3E+00	8.5E+00	5.4E+00	1.0E+01
Chlorobenzene	3.7E-02 U	2.1E-01 U	7.6E-02 U	3.2E-02 U	1.6E-02 U	--	--	--	--	7.7E-01 U	2.5E-02 U	1.1E+00 U	3.3E-01 U	1.6E+00 U	1.6E+00 U	9.0E-01 U	1.0E+00 U
Chloroethane	8.5E-02 U	4.9E-01 U	1.8E-01 U	7.3E-02 U	3.8E-02 U	--	--	--	--	1.8E+00 U	5.8E-02 U	2.5E+00 U	7.5E-01 U	3.7E+00 U	3.6E+00 U	2.0E+00 U	2.4E+00 U
Chloroform	2.4E+01	4.1E+01	6.7E+01	1.0E+01	5.8E+00	3.7E+02	5.7E+02	7.1E+02	5.7E+01	2.1E+02	8.0E+00	2.1E+02	2.0E+02	3.8E+02	3.9E+02	2.5E+02	2.8E+02
Chloromethane	6.6E-02 U	3.8E-01 U	1.4E-01 U	1.4E-01 U	7.4E-02 U	--	--	--	--	1.4E+00 U	4.5E-02 U	5.0E+00 U	5.9E-01 U	7.3E+00 U	7.1E+00 U	4.0E+00 U	4.6E+00 U
cis-1,2-Dichloroethene	3.2E-02 U	1.8E-01 U	6.6E-02 U	2.7E-02 U	1.4E-02 U	--	--	--	--	6.7E-01 U	2.2E-02 U	9.5E-01 U	2.8E-01 U	1.4E+00 U	1.4E+00 U	7.7E-01 U	8.9E-01 U
cis-1,3-Dichloropropene	3.6E-02 U	2.1E-01 U	7.5E-02 U	3.1E-02 U	1.6E-02 U	--	--	--	--	7.6E-01 U	2.5E-02 U	1.1E+00 U	3.2E-01 U	1.6E+00 U	1.6E+00 U	8.8E-01 U	1.0E+00 U
Cyclohexane	4.6E-02	1.6E-01 U	1.1E-01	2.4E-02 U	1.2E-02 U	--	2.1E+00	ND	ND	5.8E-01 U	1.9E-02 U	8.3E-01 U	2.4E-01 U	1.2E+00 U	1.2E+00 U	6.7E-01 U	7.7E-01 U
Cyclohexanone	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	
Cyclopentane	--	--	--	--		--	3.4E-01	--	--	--	--	--	--	--	--	--	
Dibromochloromethane	6.8E-02 U	3.9E-01 U	1.4E-01 U	5.9E-02 U	3.0E-02 U	--	--	--	--	1.4E+00 U	4.6E-02 U	2.0E+00 U	6.0E-01 U	3.0E+00 U	2.9E+00 U	1.6E+00 U	1.9E+00 U
Dichlorodifluoromethane (Freon 12)	1.1E+00	2.2E+00 J	2.2E+00	3.4E-02 U	1.8E-02 U	--	--	ND	ND	2.1E+00	2.4E-01	2.8E+00	3.6E+00	3.2E+00	3.7E+00	2.9E+00	3.4E+00
Dichlorotetrafluoroethane (Freon 114)	5.6E-02 U	3.2E-01 U	1.2E-01 U	4.8E-02 U	2.5E-02 U	--		--	--	1.2E+00 U	3.8E-02 U	1.7E+00 U	5.0E-01 U	2.5E+00 U	2.4E+00 U	1.4E+00 U	1.6E+00 U
Ethanol	1.4E-01	3.5E-01 U	1.2E-01 U	5.2E-02 U	2.7E-02 U	--	--	--	--	1.3E+00 U	4.1E-02 U	1.8E+00 U	5.4E-01 U	2.6E+00 U	2.6E+00 U	1.5E+00 U	1.7E+00 U
Ethyl acetate	--	--	--	--		--	--	ND	ND	--	--						
Ethylbenzene	3.5E-02 U	2.0E-01 U	7.2E-02 U	3.0E-02 U	1.6E-02 U	--	ND	ND	ND	7.3E-01 U	2.4E-02 U	1.0E+00 U	3.1E-01 U	1.5E+00 U	1.5E+00 U	8.4E-01 U	9.7E-01 U
Heptane	3.3E-02 U	1.9E-01 U	6.8E-02 U	2.8E-02 U	1.5E-02 U	--	ND	ND	ND	6.9E-01 U	2.2E-02 U	9.8E-01 U	3.8E-01	1.4E+00 U	1.4E+00 U	8.0E-01 U	9.2E-01 U
Hexachlorobutadiene	3.4E-01 U	2.0E+00 U	7.1E-01 U	2.9E-01 U	1.5E-01 U	--	--	--	--	7.2E+00 U	2.3E-01 U	1.0E+01 U	3.0E+00 U	1.5E+01 U	1.5E+01 U	8.3E+00 U	9.6E+00 U
Hexane	2.8E-02 U	1.6E-01 U	5.8E-02 U	2.4E-02 U	1.3E-02 U	--	ND	ND	ND	5.9E-01 U	1.9E-02 U	8.4E-01 U	1.0E+00	1.2E+00 U	1.2E+00 U	6.8E-01 U	7.9E-01 U
Isobutane	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	
Isopentane (2-methylbutane)	--	--	--	--		--	3.2E-01	--	--	--	--	--	--	--	--	--	
Isopropylbenzene	4.0E-02 U	2.3E-01 U	8.2E-02 U	3.4E-02 U	1.8E-02 U	--	--	--	--	8.2E-01 U	2.7E-02 U	1.2E+00 U	3.5E-01 U	1.7E+00 U	1.7E+00 U	9.6E-01 U	1.1E+00 U
m,p-Xylene	3.5E-02 U	2.0E-01 U	7.2E-02 U	4.4E-02	2.1E-02	--	--	--	--	7.3E-01 U	2.4E-02 U	1.0E+00 U	3.1E-01 U	1.5E+00 U	1.5E+00 U	8.4E-01 U	9.7E-01 U
Methyl tert-butyl ether	2.9E-02 U	1.7E-01 U	6.0E-02 U	2.5E-02 U	1.3E-02 U	--	--	--	--	6.0E-01 U	2.0E-02 U	8.6E-01 U	2.6E-01 U	1.3E+00 U	1.2E+00 U	7.0E-01 U	8.1E-01 U
Methylene chloride	7.1E-02	3.9E-01	2.3E-01	2.4E-01 U	1.2E-01 U	ND	2.4E-01	ND	ND	8.7E-01	4.1E-02	8.3E+00 U	1.1E+00	1.2E+01 U	1.2E+01 U	6.8E+00 U	7.8E+00 U
n-Propylbenzene	4.0E-02 U	2.3E-01 U	8.2E-02 U	3.4E-02 U	1.8E-02 U	--	--	--	--	8.2E-01 U	2.7E-02 U	1.2E+00 U	3.5E-01 U	1.7E+00 U	1.7E+00 U	9.6E-01 U	1.1E+00 U
o-Xylene	3.5E-02 U	2.0E-01 U	7.2E-02 U	3.0E-02 U	1.6E-02 U	--	--	--	--	7.3E-01 U	2.4E-02 U	1.0E+00 U	3.1E-01 U	1.5E+00 U	1.5E+00 U	8.4E-01 U	9.7E-01 U
Propene	--	--	--	--		--	ND	ND	ND	--	--	--	--	--	--	--	
Styrene	3.4E-02 U	2.0E-01 U	7.1E-02 U	2.9E-02 U	1.5E-02 U	--	ND	ND	ND	7.2E-01 U	2.3E-02 U	1.0E+00 U	3.0E-01 U	1.5E+00 U	1.5E+00 U	8.3E-01 U	1.1E+00
Sulfur Dioxide	--	--	--	--		--	1.0E-01	--	--	--	--	--	--	--	--	--	
Tetrachloroethene	4.3E-01	4.4E-01	1.1E+00	1.4E-01	1.3E-01	3.5E+01	8.2E+01	2.9E+01	3.3E+00	2.8E+00	1.1E-01	1.6E+00 U	1.3E+00	5.3E+00	5.7E+00	1.8E+00	2.4E+00
Tetrahydrofuran	2.4E-02 U	1.4E-01 U	4.9E-02 U	2.0E-02 U	1.0E-02 U	--	ND	ND	ND	5.0E-01 U	1.6E-02 U	7.1E-01 U	2.1E-01 U	1.0E+00 U	1.0E+00 U	5.7E-01 U	6.6E-01 U
Toluene	3.0E-02 U	1.7E-01 U	6.2E-02 U	8.6E-02	3.9E-02	--	ND	ND	ND	6.3E-01 U	2.0E-02 U	9.0E-01 U	2.7E-01 U	1.3E+00 U	1.3E+00 U	1.0E+00	8.4E-01 U
trans-1,2-Dichloroethene	3.2E-02 U	1.8E-01 U	6.6E-02 U	2.7E-02 U	1.4E-02 U	--	--	--	--	6.7E-01 U	2.2E-02 U	9.5E-01 U	2.8E-01 U	1.4E+00 U	1.4E+00 U	7.7E-01 U	8.9E-01 U
trans-1,3-Dichloropropene	3.6E-02 U	2.1E-01 U	7.5E-02 U	3.1E-02 U	1.6E-02 U	--	--	--	--	7.6E-01 U	2.5E-02 U	1.1E+00 U	3.2E-01 U	1.6E+00 U	1.6E+00 U	8.8E-01 U	1.0E+00 U
Trichloroethene	8.5E-01	1.0E+00	2.3E+00	2.6E-01	2.4E-01	1.7E+01	3.3E+01	2.8E+01	2.1E+00	4.9E+00	1.8E-01	4.8E+00	4.0E+00	1.0E+01	9.9E+00	5.6E+00	6.0E+00
Trichlorofluoromethane (Freon 11)	3.3E+01	7.1E+01 J	6.2E+01	1.5E+00	1.0E+00	4.3E+02	6.9E+02	6.3E+02	3.4E+01	7.7E+01	4.7E+00	9.9E+01	1.1E+02	1.1E+02 J	1.2E+02 J	1.1E+02	1.3E+02
Vinyl acetate	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	
Vinyl bromide	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	
Vinyl chloride	2.0E-02 U	1.2E-01 U	4.2E-02 U	1.8E-02 U	9.2E-03 U	--	--	--	--	4.3E-01 U	1.4E-02 U	6.1E-01 U	1.8E-01 U	9.0E-01 U	8.8E-01 U	5.0E-01 U	5.7E-01 U
Xylenes, total	--	--	--	--		--	ND	ND	ND	--	--	--	--	--	--	--	

TABLE I-6

ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES AT SOIL VAPOR MONITORING WELLS[1,2]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in miligrams per cubic meter (mg/m^3)

Analyte / Sample Date	SGD-SP 12/29/2003	SGD-SP 5/12/2006	SGD-SP 11/15/2006	SGD-SP 4/25/2007	SGD-SP 12/19/2007	SGD-SP 4/9/2008	SGD-SP 10/20/2008	SGD-SP 4/15/2009	SGD-SP 11/18/2009
1,1,1-Trichloroethane	--	ND	ND	ND	4.4E+00 U	1.7E+00 U	2.8E+00 U	8.5E-01 U	1.4E+00 U
1,1,2,2-Tetrachloroethane	--	--	--	--	8.4E-03 U	5.6E+00 U	3.7E+00 U	1.1E+00 U	1.9E+00 U
1,1,2-Trichloroethane	--	--	--	--	--	1.7E+00 U	2.8E+00 U	8.5E-01 U	1.4E+00 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.4E+01	1.6E+01	3.1E+01	3.1E+01	1.7E+01	3.2E+01	2.4E+01	1.9E+01	6.1E+00
1,1-Dichloroethane	--	3.1E-01	ND	ND	3.3E+00 U	1.3E+00 U	2.1E+00 U	6.4E-01 U	1.1E+00 U
1,1-Dichloroethene	ND	1.9E+00	ND	ND	3.2E+00 U	3.7E+00	2.1E+00	1.4E+00	1.1E+00 U
1,1-Difluoroethane	--	--	--	--	9.6E+00 U	3.8E+00 U	6.1E+00 U	1.8E+00 U	--
1,2,4-Trichlorobenzene	--	--	--	--	4.7E+00 U	2.4E+01 U	1.6E+01 U	4.7E+00 U	8.3E+00 U
1,2,4-Trimethylbenzene	--	--	--	--	--	1.6E+00 U	2.7E+00 U	8.0E-01 U	1.4E+00 U
1,2-Dibromoethane (EDB)	--	--	--	--	1.1E-02 U	6.1E+00 U	4.1E+00 U	1.2E+00 U	2.1E+00 U
1,2-Dichlorobenzene	--	--	--	--	--	4.8E+00 U	3.2E+00 U	9.6E-01 U	1.6E+00 U
1,2-Dichloroethane	--	7.4E-01	ND	ND	3.3E+00 U	1.8E+00	2.2E+00 U	1.0E+00	1.1E+00 U
1,2-Dichloropropane	--	ND	ND	ND	3.8E+00 U	3.7E+00 U	2.5E+00 U	7.5E-01 U	1.3E+00 U
1,3,5-Trimethylbenzene	--	--	--	--	3.8E-03 U	1.6E+00 U	2.7E+00 U	8.0E-01 U	1.4E+00 U
1,3-Butadiene	--	--	--	--	1.7E-03 U	1.8E+00 U	1.2E+00 U	3.4E-01 U	6.0E-01 U
1,3-Dichlorobenzene	--	--	--	--	--	4.8E+00 U	3.2E+00 U	9.6E-01 U	1.6E+00 U
1,3-Dichloropropane	--	--	--	--	1.5E+01 U	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	4.8E+00 U	3.2E+00 U	9.6E-01 U	1.6E+00 U
1,4-Dioxane	--	--	--	--	2.9E-02 U	1.2E+01 U	7.7E+00 U	2.3E+00 U	4.0E+00 U
2,2,4-Trimethylpentane	--	--	--	--	--	1.5E+00 U	2.5E+00 U	7.0E-01 U	1.3E+00 U
2,3-Dimethylbutane	--	2.0E-01	--	--	--	--	--	--	--
2-Butanone (MEK)	--	ND	ND	ND	1.2E+00 U	2.4E+00 U	1.7E+00	4.7E-01 U	8.0E-01 U
2-Hexanone	--	--	--	--	8.3E-03 U	5.4E+00 U	8.8E+00 U	2.6E+00 U	4.6E+00 U
2-Methylpentane	--	ND	--	--	--	--	--	--	--
2-Propanol	--	--	--	--	--	8.0E+00 U	5.3E+00 U	1.6E+00 U	2.8E+00 U
3-Chloropropene	--	--	--	--	--	1.0E+01 U	6.7E+00 U	2.0E+00 U	3.5E+00 U
3-Methylpentane	--	1.2E-01	--	--	--	--	--	--	--
4-Ethyltoluene	--	--	--	--	--	4.0E+00 U	2.7E+00 U	8.0E-01 U	1.4E+00 U
4-Methyl-2-pentanone (MIBK)	--	--	--	--	3.3E+00 U	1.3E+00 UJ	2.1E+00 U	6.4E-01 U	1.1E+00 U
Acetone	--	ND	ND	ND	8.0E+00 U	7.7E+00 U	5.1E+00 U	1.5E+00 U	2.7E+00 U
alpha-Chlorotoluene	--	--	--	--	--	4.3E+00 U	2.8E+00 U	8.5E-01 U	1.4E+00 U
Benzene	--	9.7E-02	ND	ND	1.0E+00 U	2.6E+00 U	1.7E+00 U	5.2E-01 U	8.7E-01 U
Bromodichloromethane	--	--	--	--	5.5E+00 U	2.1E+00 U	3.5E+00 U	1.0E+00 U	1.8E+00 U
Bromoform	--	--	--	--	8.5E+00 U	8.3E+00 U	5.5E+00 U	1.7E+00 U	2.8E+00 U
Bromomethane	--	--	--	--	3.3E+00 U	1.3E+00 U	2.1E+00 U	6.0E-01 U	1.1E+00 U
Carbon disulfide	ND	--	ND	ND	2.5E+00 U	2.5E+00 U	1.7E+00 U	5.0E-01 U	8.5E-01 U
Carbon tetrachloride	8.0E+00	9.9E+00	2.4E+01	3.0E+01	2.4E+01	1.9E+01	1.6E+01	1.7E+01	7.4E+00
Chlorobenzene	--	--	--	--	8.4E-03 U	3.7E+00 U	2.5E+00 U	7.5E-01 U	1.3E+00 U
Chloroethane	--	--	--	--	2.2E+00 U	8.5E-01 U	1.4E+00 U	4.0E-01 U	7.2E-01 U
Chloroform	3.1E+02	4.0E+02	9.5E+02	7.6E+02	8.0E+02	8.5E+02	7.1E+02	4.7E+02	2.8E+02
Chloromethane	--	--	--	--	--	2.7E+00 U	4.4E+00 U	1.3E+00 U	2.3E+00 U
cis-1,2-Dichloroethene	--	--	--	--	3.3E+00 U	3.2E+00 U	2.1E+00 U	6.4E-01 U	1.1E+00 U
cis-1,3-Dichloropropene	--	--	--	--	6.5E-03 U	3.7E+00 U	2.5E+00 U	7.5E-01 U	1.3E+00 U
Cyclohexane	--	--	ND	ND	--	2.7E+00 U	1.8E+00 U	5.3E-01 U	9.0E-01 U
Cyclohexanone	--	ND	--	--	--	--	--	--	--
Cyclopentane	--	ND	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	1.1E-02 U	2.8E+00 U	4.6E+00 U	1.3E+00 U	2.3E+00 U
Dichlorodifluoromethane (Freon 12)	--	5.9E+00	1.5E+01	1.9E+01	3.2E+00	2.2E+01	1.2E+01	1.6E+01	5.9E+00
Dichlorotetrafluoroethane (Freon 114)	--	--	--	--	--	2.2E+00 U	3.7E+00 U	1.1E+00 U	1.9E+00 U
Ethanol	--	--	--	--	--	6.1E+00 U	5.6E+00	1.9E+00	2.1E+00 U
Ethyl acetate	--		ND	ND	2.5E+00 U	4.7E+00 U	7.6E+00 U	2.2E+00 U	--
Ethylbenzene	--	ND	ND	ND	3.6E+00 U	3.5E+00 U	2.3E+00 U	6.9E-01 U	1.2E+00 U
Heptane	--	ND	ND	ND		3.2E+00 U	2.1E+00 U	6.4E-01 U	1.1E+00 U
Hexachlorobutadiene	--	--	--	--	2.2E-01 U	1.4E+01 U	2.3E+01 U	6.7E+00 U	1.2E+01 U
Hexane	--	ND	ND	ND	1.5E+00 U	2.9E+00 U	1.9E+00 U	5.9E-01 U	9.9E-01 U
Isobutane	--	ND	--	--	--	--	--	--	--
Isopentane (2-methylbutane)	--	ND	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	1.6E+00 U	2.7E+00 U	7.5E-01 U	1.4E+00 U
m,p-Xylene	--	--	--	--	3.6E+00 U	3.5E+00 U	2.3E+00 U	6.9E-01 U	1.2E+00 U
Methyl tert-butyl ether	--	--	--	--	1.9E+00 U	1.2E+00 U	1.9E+00 U	5.5E-01 U	9.9E-01 U
Methylene chloride	2.8E+00	1.3E+00	ND	ND	4.9E-03 U	2.8E+00 U	2.5E+00	9.7E-01	9.4E-01 U
n-Propylbenzene	--	--	--	--	8.5E-02 U	4.0E+00 U	2.7E+00 U	8.0E-01 U	1.4E+00 U
o-Xylene	--	--	--	--	3.6E+00 U	3.5E+00 U	2.3E+00 U	6.9E-01 U	1.2E+00 U
Propene	--	ND	ND	ND	--	2.2E+00 U	3.6E+00 U	1.1E+00 U	--
Styrene	--	2.4E-01	ND	ND	5.2E-03 U	3.5E+00 U	2.3E+00 U	6.9E-01 U	1.2E+00 U
Sulfur Dioxide	--	9.2E-02	--	--	--	--	--	--	--
Tetrachloroethene	1.1E+01	1.5E+01	9.5E+00	2.3E+01	1.9E+01	1.8E+01	1.0E+01	6.5E+00	3.1E+00
Tetrahydrofuran	--	3.9E-01	ND	ND	4.2E-03 U	9.5E-01 U	1.6E+00 U	4.5E-01 U	8.0E-01 U
Toluene	--	ND	ND	ND	3.0E+00 U	2.9E+00 U	2.4E+00	5.9E-01 U	9.9E-01 U
trans-1,2-Dichloroethene	--	--	--	--	5.2E-03 U	1.3E+00 U	2.1E+00 U	6.4E-01 U	1.1E+00 U
trans-1,3-Dichloropropene	--	--	--	--	--	3.7E+00 U	2.5E+00 U	7.5E-01 U	1.3E+00 U
Trichloroethene	1.6E+01	1.5E+01	3.9E+01	4.6E+01	3.2E+01	3.7E+01	2.7E+01	1.9E+01	9.3E+00
Trichlorofluoromethane (Freon 11)	2.3E+02	2.4E+02	4.7E+02	5.4E+02	9.1E+02	4.1E+02	3.4E+02	2.9E+02	1.4E+02
Vinyl acetate	--	--	--	--	1.9E-02 U	1.1E+01 U	7.4E+00 U	2.2E+00 U	--
Vinyl bromide	--	--	--	--	2.2E+00 U	5.7E+00 U	9.2E+00 U	2.8E+00 U	--
Vinyl chloride	--	--	--	--	2.1E+00 U	2.0E+00 U	1.4E+00 U	3.8E-01 U	6.9E-01 U
Xylenes, total	--	ND	ND	ND	--	--	--	--	--

Analyte / Sample Date	SGD-SP 10/13/2010	SGD-SP 4/20/2011	SGD-SP 10/18/2011	SGD-SP 11/3/2011	SGD-SP 11/22/2011	SGD-SP 12/22/2011	SGD-SP 1/24/2012	SGD-SP 3/1/2012	SGD-SP 3/12/2012	SGD-SP 3/29/2012	SGD-MP 12/29/2003	SGD-MP 5/12/2006
1,1,1-Trichloroethane	6.9E-03 U	9.2E-01 U	8.9E-01 U	8.8E-01 U	9.2E-01 U	6.4E-01 U	1.5E+00 U	5.4E-01 U	9.5E-01 U	3.7E-01 U	--	ND
1,1,2,2-Tetrachloroethane	5.9E-02 U	1.2E+00 U	1.1E+00 U	1.1E+00 U	1.2E+00 U	8.0E-01 U	1.9E+00 U	6.8E-01 U	1.2E+00 U	4.7E-01 U	--	--
1,1,2-Trichloroethane	6.9E-03 U	9.2E-01 U	8.9E-01 U	8.8E-01 U	9.2E-01 U	6.4E-01 U	1.5E+00 U	5.4E-01 U	9.5E-01 U	3.7E-01 U	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	2.0E-01	1.2E+01	1.2E+00 U	2.1E+00	3.1E+00	3.7E+00	6.3E+00	4.3E+00	1.3E+00 U	1.2E+00	4.4E+01	4.9E+01
1,1-Dichloroethane	5.2E-03 U	6.8E-01 U	6.6E-01 U	6.5E-01 U	6.8E-01 U	4.7E-01 U	1.1E+00 U	4.0E-01 U	7.1E-01 U	2.8E-01 U	--	1.7E-01
1,1-Dichloroethene	3.3E-02 U	9.6E-01	6.5E-01 U	6.4E-01 U	6.7E-01 U	4.6E-01 U	1.1E+00 U	3.9E-01 U	6.9E-01 U	2.7E-01 U	3.9E+00	4.8E+00
1,1-Difluoroethane	--	--	--	--	1.8E+00 U	1.3E+00 U	3.0E+00 U	1.1E+00 U	1.9E+00 U	7.4E-01 U	--	--
1,2,4-Trichlorobenzene	3.8E-02 U	5.0E+00 U	4.8E+00 U	4.8E+00 U	5.0E+00 U	3.5E+00 U	8.4E+00 U	2.9E+00 U	5.2E+00 U	2.0E+00 U	--	--
1,2,4-Trimethylbenzene	4.2E-02 U	8.2E-01 U	8.0E-01 U	7.9E-01 U	8.2E-01 U	5.8E-01 U	1.4E+00 U	1.9E+00 U	8.6E-01 U	3.4E-01 U	--	--
1,2-Dibromoethane (EDB)	1.0E-02 U	1.3E+00 U	1.2E+00 U	1.2E+00 U	1.3E+00 U	9.0E-01 U	2.2E+00 U	7.6E-01 U	1.3E+00 U	5.3E-01 U	--	--
1,2-Dichlorobenzene	5.0E-02 U	1.0E+00 U	9.8E-01 U	9.7E-01 U	1.0E+00 U	7.0E-01 U	1.7E+00 U	6.0E-01 U	1.0E+00 U	4.1E-01 U	--	--
1,2-Dichloroethane	5.3E-03 U	6.8E-01 U	6.6E-01 U	6.5E-01 U	6.8E-01 U	4.7E-01 U	1.1E+00 U	4.0E-01 U	7.1E-01 U	2.8E-01 U	--	ND
1,2-Dichloropropane	3.9E-02 U	7.8E-01 U	7.5E-01 U	7.4E-01 U	7.8E-01 U	5.4E-01 U	1.3E+00 U	4.6E-01 U	8.1E-01 U	3.2E-01 U	--	ND
1,3,5-Trimethylbenzene	6.5E-03 U	8.2E-01 U	8.0E-01 U	7.9E-01 U	8.2E-01 U	5.8E-01 U	1.4E+00 U	4.9E-01 U	8.6E-01 U	3.4E-01 U	--	--
1,3-Butadiene	1.9E-02 U	3.7E-01 U	3.6E-01 U	3.6E-01 U	3.7E-01 U	2.6E-01 U	6.2E-01 U	2.2E-01 U	3.9E-01 U	1.5E-01 U	--	--
1,3-Dichlorobenzene	7.8E-03 U	1.0E+00 U	9.8E-01 U	9.7E-01 U	1.0E+00 U	7.0E-01 U	1.7E+00 U	6.0E-01 U	1.0E+00 U	4.1E-01 U	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--		--	--
1,4-Dichlorobenzene	5.0E-02 U	1.0E+00 U	9.8E-01 U	9.7E-01 U	1.0E+00 U	7.0E-01 U	1.7E+00 U	6.0E-01 U	1.0E+00 U	4.1E-01 U	--	--
1,4-Dioxane	1.8E-02 U	2.4E+00 U	2.3E+00 U	2.3E+00 U	2.4E+00 U	1.7E+00 U	4.0E+00 U	1.4E+00 U	2.5E+00 U	9.9E-01 U	--	--
2,2,4-Trimethylpentane	3.9E-02 U	7.8E-01 U	7.6E-01 U	7.5E-01 U	7.8E-01 U	5.5E-01 U	1.3E+00 U	4.6E-01 U	8.2E-01 U	3.2E-01 U	--	--
2,3-Dimethylbutane	--	--	--	--	--	--	--	--	--		--	6.7E-01
2-Butanone (MEK)	3.9E-03 U	2.0E+00 U	1.9E+00 U	1.9E+00 U	2.0E+00 U	1.4E+00 U	3.3E+00 U	1.2E+00 U	2.1E+00 U	8.1E-01 U	--	ND
2-Hexanone	1.4E-01 U	2.8E+00 U	2.7E+00 U	2.6E+00 U	2.8E+00 U	1.9E+00 U	4.6E+00 U	1.6E+00 U	2.9E+00 U	1.1E+00 U	--	--
2-Methylpentane	--	--	--	--	--	--	--	--	--		--	2.3E-01
2-Propanol	1.3E-02 U	1.6E+00 U	1.6E+00 U	1.6E+00 U	1.6E+00 U	1.2E+00 U	2.8E+00 U	9.7E-01 U	1.9E+00	6.7E-01 U	--	--
3-Chloropropene	1.1E-01 U	2.1E+00 U	2.0E+00 U	2.0E+00 U	2.1E+00 U	1.5E+00 U	3.5E+00 U	1.2E+00 U	2.2E+00 U	8.6E-01 U	--	--
3-Methylpentane	--	--	--	--	--	--	--	--	--		--	4.6E-01
4-Ethyltoluene	6.5E-03 U	8.2E-01 U	8.0E-01 U	7.9E-01 U	8.2E-01 U	5.8E-01 U	1.4E+00 U	4.9E-01 U	8.6E-01 U	3.4E-01 U	--	--
4-Methyl-2-pentanone (MIBK)	3.4E-02 U	6.9E-01 U	6.7E-01 U	6.6E-01 U	6.9E-01 U	4.8E-01 U	1.2E+00 U	4.0E-01 U	7.2E-01 U	2.8E-01 U	--	--
Acetone	1.8E-02	1.6E+00 U	1.5E+00 U	1.5E+00 U	1.6E+00 U	2.0E+00	2.7E+00 U	9.4E-01 U	4.2E+00 U	1.6E+00 U	--	ND
alpha-Chlorotoluene	4.5E-02 U	8.7E-01 U	8.4E-01 U	8.3E-01 U	8.7E-01 U	6.0E-01 U	1.4E+00 U	2.0E+00 U	9.0E-01 U	3.5E-01 U	--	--
Benzene	4.2E-03 U	5.4E-01 U	5.2E-01 U	5.1E-01 U	5.4E-01 U	3.7E-01 U	9.0E-01 U	3.2E-01 U	5.6E-01 U	2.2E-01 U	--	1.8E-01
Bromodichloromethane	5.6E-02 U	1.1E+00 U	1.1E+00 U	1.1E+00 U	1.1E+00 U	7.8E-01 U	1.9E+00 U	6.6E-01 U	1.2E+00 U	4.6E-01 U	--	--
Bromoform	1.3E-02 U	1.7E+00 U	1.7E+00 U	1.7E+00 U	1.7E+00 U	1.2E+00 U	2.9E+00 U	4.1E+00 U	1.8E+00 U	7.1E-01 U	--	--
Bromomethane	3.4E-02 U	6.5E-01 U	6.3E-01 U	6.2E-01 U	6.5E-01 U	4.5E-01 U	1.1E+00 U	3.8E-01 U	6.8E+00 U	2.7E+00 U	--	--
Carbon disulfide	4.1E-03 U	2.1E+00 U	2.0E+00 U	2.0E+00 U	2.1E+00 U	3.6E-01 U	3.5E+00 U	3.1E-01 U	2.2E+00 U	8.4E-01 J	ND	--
Carbon tetrachloride	2.7E-01	1.1E+01	2.2E+00	4.2E+00	5.2E+00	6.7E+00	1.1E+01	8.1E+00	2.3E+00	2.5E+00	3.3E+01	3.4E+01
Chlorobenzene	6.1E-03 U	7.7E-01 U	7.5E-01 U	7.4E-01 U	7.7E-01 U	5.4E-01 U	1.3E+00 U	4.6E-01 U	8.0E-01 U	3.2E-01 U	--	--
Chloroethane	2.2E-02 U	1.8E+00 U	1.7E+00 U	1.7E+00 U	1.8E+00 U	1.2E+00 U	3.0E+00 U	1.0E+00 U	1.8E+00 U	7.2E-01 U	--	--
Chloroform	7.6E-01	1.8E+02	1.4E+02	2.0E+02	2.1E+02	2.6E+02	3.6E+02	3.0E+02	1.8E+02	1.1E+02	2.1E+02	3.8E+02
Chloromethane	7.1E-02 U	1.4E+00 U	1.3E+00 U	1.3E+00 U	1.4E+00 U	9.7E-01 U	2.3E+00 U	8.2E-01 U	3.6E+00 U	1.4E+00 U	--	--
cis-1,2-Dichloroethene	5.2E-03 U	6.7E-01 U	6.5E-01 U	6.4E-01 U	6.7E-01 U	4.6E-01 U	1.1E+00 U	3.9E-01 U	6.9E-01 U	2.7E-01 U	--	--
cis-1,3-Dichloropropene	3.9E-02 U	7.6E-01 U	7.4E-01 U	7.3E-01 U	7.6E-01 U	5.3E-01 U	1.3E+00 U	4.5E-01 U	7.9E-01 U	3.1E-01 U	--	--
Cyclohexane	4.3E-03 U	5.8E-01 U	5.6E-01 U	5.5E-01 U	5.8E-01 U	4.0E-01 U	9.7E-01 U	8.2E-01	6.0E-01 U	2.4E-01 U	--	9.0E-01
Cyclohexanone	--	--	--	--	--	--	--	--	--		--	ND
Cyclopentane	--	--	--	--	--	--	--	--	--		--	1.4E-01
Dibromochloromethane	7.3E-02 U	1.4E+00 U	1.4E+00 U	1.4E+00 U	1.4E+00 U	1.0E+00 U	2.4E+00 U	8.4E-01 U	1.5E+00 U	5.8E-01 U	--	--
Dichlorodifluoromethane (Freon 12)	2.2E-02	1.1E+01	2.2E+00	3.4E+00	4.4E+00	6.1E+00	1.1E+01 J	6.4E+00	2.2E+00	1.7E+00	--	1.9E+01
Dichlorotetrafluoroethane (Freon 114)	5.9E-02 U	1.2E+00 U	1.1E+00 U	1.1E+00 U	1.2E+00 U	8.2E-01 U	2.0E+00 U	6.9E-01 U	1.2E+00 U	4.8E-01 U	--	--
Ethanol	9.6E-03 U	1.3E+00 U	1.2E+00 U	1.2E+00 U	1.3E+00 U	8.8E-01 U	2.1E+00 U	7.5E-01 U	1.3E+00 U	5.2E-01 U	--	--
Ethyl acetate	--	--	--	--	--	--	--	--	--		--	--
Ethylbenzene	3.6E-02 U	7.3E-01 U	7.1E-01 U	7.0E-01 U	7.3E-01 U	5.1E-01 U	1.2E+00 U	4.3E-01 U	7.6E-01 U	3.0E-01 U	--	ND
Heptane	5.2E-03 U	6.9E-01 U	6.7E-01 U	6.6E-01 U	6.9E-01 U	4.8E-01 U	1.2E+00 U	7.0E-01	7.2E-01 U	2.8E-01 U	--	ND
Hexachlorobutadiene	3.7E-01 U	7.2E+00 U	7.0E+00 U	6.9E+00 U	7.2E+00 U	5.0E+00 U	1.2E+01 U	4.2E+00 U	7.5E+00 U	2.9E+00 U	--	--
Hexane	4.8E-03 U	5.9E-01 U	5.7E-01 U	5.7E-01 U	5.9E-01 U	4.1E-01 U	9.9E-01 U	1.2E+00	6.2E-01 U	2.4E-01 U	--	ND
Isobutane	--	--	--	--	--	--	--	--	--		--	ND
Isopentane (2-methylbutane)	--	--	--	--	--	--	--	--	--		--	1.9E-01
Isopropylbenzene	4.2E-02 U	8.2E-01 U	8.0E-01 U	7.9E-01 U	8.2E-01 U	5.8E-01 U	1.4E+00 U	4.9E-01 U	8.6E-01 U	3.4E-01 U	--	--
m,p-Xylene	5.6E-03 U	7.3E-01 U	7.1E-01 U	7.0E-01 U	7.3E-01 U	5.1E-01 U	1.2E+00 U	4.3E-01 U	7.6E-01 U	3.0E-01 U	--	--
Methyl tert-butyl ether	3.1E-02 U	6.0E-01 U	5.9E-01 U	5.8E-01 U	6.0E-01 U	4.2E-01 U	1.0E+00 U	3.6E-01 U	6.3E-01 U	2.5E-01 U	--	--
Methylene chloride	4.5E-03 U	1.5E+00	5.7E-01 U	5.6E-01 U	5.8E-01 U	4.1E-01 U	1.2E+00	6.5E-01	6.1E+00 U	2.4E+00 U	5.8E+00	4.2E+00
n-Propylbenzene	4.2E-02 U	8.2E-01 U	8.0E-01 U	7.9E-01 U	8.2E-01 U	5.8E-01 U	1.4E+00 U	4.9E-01 U	8.6E-01 U	3.4E-01 U	--	--
o-Xylene	5.6E-03 U	7.3E-01 U	7.1E-01 U	7.0E-01 U	7.3E-01 U	5.1E-01 U	1.2E+00 U	4.3E-01 U	7.6E-01 U	3.0E-01 U	--	--
Propene	--	--	--	--	--	--	--	--	--		--	ND
Styrene	3.6E-02 U	7.2E-01 U	6.9E-01 U	6.8E-01 U	7.2E-01 U	5.0E-01 U	1.2E+00 U	4.2E-01 U	7.4E-01 U	3.8E-01	--	ND
Sulfur Dioxide	--	--	--	--	--	--	--	--	--		--	1.1E-01
Tetrachloroethene	8.9E-03 U	1.3E+00	1.1E+00 U	1.2E+00	1.1E+00 U	1.2E+00	4.5E+00	1.5E+00	1.2E+00 U	6.8E-01	1.4E+01	1.9E+01
Tetrahydrofuran	2.5E-02 U	5.0E-01 U	4.8E-01 U	4.7E-01 U	5.0E-01 U	3.4E-01 U	8.3E-01 U	2.9E-01 U	5.2E-01 U	2.0E-01 U	--	ND
Toluene	4.8E-03 U	6.3E-01 U	6.1E-01 U	6.1E-01 U	1.1E+00	4.4E-01 U	1.1E+00 U	3.7E-01 U	6.6E-01 U	2.9E-01	--	ND
trans-1,2-Dichloroethene	3.4E-02 U	6.7E-01 U	6.5E-01 U	6.4E-01 U	6.7E-01 U	4.6E-01 U	1.1E+00 U	3.9E-01 U	6.9E-01 U	2.7E-01 U	--	--
trans-1,3-Dichloropropene	6.1E-03 U	7.6E-01 U	7.4E-01 U	7.3E-01 U	7.6E-01 U	5.3E-01 U	1.3E+00 U	4.5E-01 U	7.9E-01 U	3.1E-01 U	--	--
Trichloroethene	4.0E-01	8.5E+00	2.8E+00	5.6E+00	5.9E+00	7.9E+00	1.1E+01	8.8E+00	4.5E+00	3.0E+00	2.8E+01	ND
Trichlorofluoromethane (Freon 11)	4.7E-01	3.4E+02	3.8E+01	6.2E+01	8.1E+01	9.9E+01	2.3E+02 J	1.2E+02	4.7E+01	3.6E+01	7.5E+02	9.1E+02
Vinyl acetate	--	--	--	--	--	--	--	--	--		--	--
Vinyl bromide	--	--	--	--	--	--	--	--	--		--	--
Vinyl chloride	2.2E-02 U	4.3E-01 U	4.2E-01 U	4.1E-01 U	4.3E-01 U	3.0E-01 U	7.2E-01 U	2.5E-01 U	4.5E-01 U	1.8E-01 U	--	--
Xylenes, total	--	--	--	--	--	--	--	--	--		--	ND

Analyte / Sample Date	SGD-MP 11/15/2006	SGD-MP 4/25/2007	SGD-MP 12/19/2007	SGD-MP 4/9/2008	SGD-MP 10/20/2008	SGD-MP 4/15/2009	SGD-MP 11/18/2009	SGD-MP 10/13/2010	SGD-MP 4/20/2011	SGD-MP 10/18/2011
1,1,1-Trichloroethane	ND	ND	2.8E+00 U	2.1E+00 U	3.4E+00 U	1.4E-01 U	1.4E+00 U	4.5E-01 U	7.1E-01 U	4.5E-01 U
1,1,2,2-Tetrachloroethane	--	--	8.4E-03 U	2.8E+00 U	3.9E+00 U	1.8E-01 U	1.9E+00 U	5.9E-01 U	8.9E-01 U	5.7E-01 U
1,1,2-Trichloroethane	--	--	--	2.1E+00 U	3.4E+00 U	1.4E-01 U	1.4E+00 U	4.5E-01 U	7.1E-01 U	4.5E-01 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	4.2E+01	7.0E+01	--	3.0E+01	6.0E+01	2.5E+00	1.7E+01	1.3E+01	2.8E+00	5.0E+00
1,1-Dichloroethane	ND	ND	2.1E+00 U	1.6E+00 U	2.6E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.2E-01 U	3.4E-01 U
1,1-Dichloroethene	ND	ND	6.3E+00	2.4E+00	4.4E+00	3.4E-01	1.5E+00	9.1E-01	5.1E-01 U	4.3E-01
1,1-Difluoroethane	--	--	6.1E+00 U	4.7E+00 U	7.6E+00 U	2.9E-01 U	--	--	--	--
1,2,4-Trichlorobenzene	--	--	7.5E-01 U	1.2E+01 U	1.7E+01 U	7.5E-01 U	8.3E+00 U	2.6E+00 UJ	3.8E+00 U	2.5E+00 U
1,2,4-Trimethylbenzene	--	--	--	2.0E+00 U	3.2E+00 U	1.3E-01 U	1.4E+00 U	4.2E-01 U	6.4E-01 U	4.1E-01 U
1,2-Dibromoethane (EDB)	--	--	3.8E-03 U	3.1E+00 U	4.3E+00 U	2.0E-01 U	2.1E+00 U	6.4E-01 U	1.0E+00 U	6.4E-01 U
1,2-Dichlorobenzene	--	--	--	2.4E+00 U	3.8E+00 U	1.6E-01 U	1.6E+00 U	5.0E-01 U	7.8E-01 U	5.0E-01 U
1,2-Dichloroethane	ND	ND	2.1E+00 U	1.6E+00 U	2.3E+00 U	1.1E-01 U	1.1E+00 U	3.4E-01 U	5.2E-01 U	3.4E-01 U
1,2-Dichloropropane	ND	ND	2.4E+00 U	1.9E+00 U	3.0E+00 U	1.2E-01 U	1.3E+00 U	3.9E-01 U	6.0E-01 U	3.8E-01 U
1,3,5-Trimethylbenzene	--	--	--	2.0E+00 U	2.8E+00 U	1.3E-01 U	1.4E+00 U	4.2E-01 U	6.4E-01 U	4.1E-01 U
1,3-Butadiene	--	--	--	8.9E-01 U	1.4E+00 U	5.8E-02 U	6.0E-01 U	1.9E-01 U	2.9E-01 U	1.8E-01 U
1,3-Dichlorobenzene	--	--	4.5E-03 U	2.4E+00 U	3.4E+00 U	1.6E-01 U	1.6E+00 U	5.0E-01 U	7.8E-01 U	5.0E-01 U
1,3-Dichloropropane	--	--	9.5E+00 U	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	2.4E+00 U	3.8E+00 U	1.6E-01 U	1.6E+00 U	5.0E-01 U	7.8E-01 U	5.0E-01 U
1,4-Dioxane	--	--	2.7E-02 U	5.9E+00 U	8.1E+00 U	3.7E-01 U	4.0E+00 U	1.2E+00 U	1.9E+00 U	1.2E+00 U
2,2,4-Trimethylpentane	--	--	--	1.9E+00 U	3.0E+00 U	1.2E-01 U	1.3E+00 U	3.9E-01 U	6.0E-01 U	3.9E-01 U
2,3-Dimethylbutane	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	ND	ND	1.5E+00 U	1.2E+00 U	1.7E+00 U	7.7E-02 U	8.0E-01 U	2.5E-01 U	1.5E+00 U	9.8E-01 U
2-Hexanone	--	--	8.8E-01 U	6.7E+00 U	1.1E+01 U	4.2E-01 U	4.6E+00 U	1.4E+00 U	2.1E+00 U	1.4E+00 U
2-Methylpentane	--	--	--	--	--	--	--	--	--	--
2-Propanol	--	--	--	4.0E+00 U	7.3E+00	2.5E-01 U	2.8E+00 U	8.5E-01 U	1.3E+00 U	8.2E-01 U
3-Chloropropene	--	--	--	5.1E+00 U	8.2E+00 U	3.2E-01 U	3.5E+00 U	1.1E+00 U	1.6E+00 U	1.0E+00 U
3-Methylpentane	--	--	--	--	--	--	--	--	--	--
4-Ethyltoluene	--	--	--	2.0E+00 U	2.8E+00 U	1.3E-01 U	1.4E+00 U	4.2E-01 U	6.4E-01 U	4.1E-01 U
4-Methyl-2-pentanone (MIBK)	--	--	2.1E+00 U	1.6E+00 UJ	2.6E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.3E-01 U	3.4E-01 U
Acetone	ND	ND	5.1E+00 U	3.9E+00 U	5.3E+00 U	2.4E-01 U	2.7E+00 U	8.2E-01 U	1.2E+00 U	7.9E-01 U
alpha-Chlorotoluene	--	--	--	2.1E+00 U	3.4E+00 U	1.4E-01 U	1.4E+00 U	4.5E-01 U	6.7E-01 U	4.3E-01 U
Benzene	ND	ND	1.7E+00 U	1.3E+00 U	1.8E+00 U	8.4E-02 U	8.7E-01 U	2.7E-01 U	4.1E-01 U	2.6E-01 U
Bromodichloromethane	--	--	3.5E+00 U	2.7E+00 U	4.3E+00 U	1.7E-01 U	1.8E+00 U	5.6E-01 U	8.7E-01 U	5.6E-01 U
Bromoform	--	--	5.3E+00 U	4.1E+00 U	5.8E+00 U	2.7E-01 U	2.8E+00 U	8.7E-01 U	1.3E+00 U	8.6E-01 U
Bromomethane	--	--	2.1E+00 U	1.6E+00 U	2.6E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.0E-01 U	3.2E-01 U
Carbon disulfide	ND	ND	1.6E+00 U	1.3E+00 U	2.0E+00	3.8E-01	8.5E-01 U	2.6E-01 U	1.6E+00 U	1.2E+00
Carbon tetrachloride	2.5E+01	5.2E+01	6.2E+01	1.6E+01	3.2E+01	6.8E-01	1.2E+01	9.9E+00	5.0E+00	1.2E+00
Chlorobenzene	--	--	2.3E-03 U	1.9E+00 U	2.6E+00 U	1.2E-01 U	1.3E+00 U	3.9E-01 U	6.0E-01 U	3.8E-01 U
Chloroethane	--	--	1.4E+00 U	1.1E+00 U	1.7E+00 U	6.9E-02 U	7.2E-01 U	2.2E-01 U	1.4E+00 U	8.8E-01 U
Chloroform	3.1E+02	6.1E+02	8.0E+02	2.0E+02	4.7E+02	2.4E+01	1.9E+02	1.5E+02	1.8E+02	5.3E+01
Chloromethane	--	--	--	3.3E+00 U	5.4E+00 U	3.3E+00	2.3E+00 U	7.1E-01 U	1.1E+00 U	5.6E+00
cis-1,2-Dichloroethene	--	--	8.0E-03	1.6E+00 U	2.2E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.1E-01 U	3.3E-01 U
cis-1,3-Dichloropropene	--	--	8.4E-03 U	1.9E+00 U	3.0E+00 U	1.2E-01 U	1.3E+00 U	3.9E-01 U	5.9E-01 U	3.8E-01 U
Cyclohexane	ND	ND	--	1.3E+00 U	1.9E+00 U	8.7E-02 U	9.0E-01 U	2.8E-01 U	4.4E-01 U	2.8E-01 U
Cyclohexanone	--	--	--	--	--	--	--	--	--	--
Cyclopentane	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	1.3E+00 U	3.5E+00 U	5.5E+00 U	2.3E-01 U	2.3E+00 U	7.3E-01 U	1.1E+00 U	7.1E-01 U
Dichlorodifluoromethane (Freon 12)	1.7E+01	3.4E+01	1.2E+00 U	1.6E+01	2.7E+01	4.9E+00	1.2E+01	1.2E+01	4.1E+00	1.2E+01
Dichlorotetrafluoroethane (Freon 114)	--	--	--	2.8E+00 U	4.5E+00 U	1.8E-01 U	1.9E+00 U	5.9E-01 U	9.0E-01 U	5.8E-01 U
Ethanol	--	--	--	3.1E+00 U	4.2E+00 U	1.9E-01 U	2.1E+00 U	6.5E-01 U	9.8E-01 U	6.2E-01 U
Ethyl acetate	ND	ND	2.0E-02 U	5.8E+00 U	9.4E+00 U	3.6E-01 U	--	--	--	--
Ethylbenzene	ND	ND	2.3E+00 U	1.7E+00 U	2.4E+00 U	1.1E-01 U	1.2E+00 U	3.6E-01 U	5.6E-01 U	3.6E-01 U
Heptane	ND	ND	--	1.6E+00 U	2.6E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.3E-01 U	3.4E-01 U
Hexachlorobutadiene	--	--	--	1.7E+01 U	2.4E+01 U	1.1E+00 U	1.2E+01 U	3.7E+00 UJ	5.5E+00 U	3.5E+00 U
Hexane	ND	ND	2.9E+00 U	1.5E+00 U	2.3E+00 U	9.5E-02 U	9.9E-01 U	3.1E-01 U	4.6E-01 U	2.9E-01 U
Isobutane	--	--	--	--	--	--	--	--	--	--
Isopentane (2-methylbutane)	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	2.0E+00 U	2.8E+00 U	1.3E-01 U	1.4E+00 U	4.2E-01 U	6.4E-01 U	4.1E-01 U
m,p-Xylene	--	--	2.3E+00 U	1.7E+00 U	2.8E+00 U	1.1E-01 U	1.2E+00 U	3.6E-01 U	5.6E-01 U	3.6E-01 U
Methyl tert-butyl ether	--	--	2.9E-02 U	1.5E+00 U	2.1E+00 U	9.5E-02 U	9.9E-01 U	3.1E-01 U	4.7E-01 U	3.0E-01 U
Methylene chloride	ND	ND	5.6E+00	2.0E+00	4.9E+00	4.2E-01	1.5E+00	9.7E-01	4.5E-01 U	5.6E-01
n-Propylbenzene	--	--	6.5E-03 U	2.0E+00 U	2.8E+00 U	1.3E-01 U	1.4E+00 U	4.2E-01 U	6.4E-01 U	4.1E-01 U
o-Xylene	--	--	2.3E+00 U	1.7E+00 U	2.8E+00 U	1.1E-01 U	1.2E+00 U	3.6E-01 U	5.6E-01 U	3.6E-01 U
Propene	ND	ND	--	2.8E+00 U	3.8E+00 U	1.7E-01 U	--	--	--	--
Styrene	ND	ND	5.2E-03 U	1.7E+00 U	2.8E+00 U	1.1E-01 U	1.2E+00 U	3.6E-01 U	5.5E-01 U	3.5E-01 U
Sulfur Dioxide	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	1.2E+01	2.2E+01	2.2E+01	3.2E+00	8.2E+00	1.8E-01 U	1.8E+00 U	1.4E+00	1.2E+00	5.6E-01 U
Tetrahydrofuran	ND	ND	1.5E-02 U	1.2E+00 U	1.9E+00 U	5.9E-01	8.0E-01 U	2.5E-01 U	3.8E-01 U	3.6E-01
Toluene	ND	ND	2.4E+00	1.5E+00 U	5.1E+00	9.5E-02 U	9.9E-01 U	3.1E-01 U	4.9E-01 U	3.1E-01 U
trans-1,2-Dichloroethene	--	--	6.0E-01 U	1.6E+00 U	2.6E+00 U	1.0E-01 U	1.1E+00 U	3.4E-01 U	5.1E-01 U	3.3E-01 U
trans-1,3-Dichloropropene	--	--	--	1.9E+00 U	2.6E+00 U	1.2E-01 U	1.3E+00 U	3.9E-01 U	5.9E-01 U	3.8E-01 U
Trichloroethene	1.9E+01	4.5E+01	4.4E+01	1.1E+01	2.5E+01	8.8E-01	7.2E+00	7.2E+00	5.8E+00	1.4E+00
Trichlorofluoromethane (Freon 11)	7.4E+02	8.6E+02	--	5.7E+02	9.7E+02	5.6E+01	4.2E+02	3.1E+02	7.8E+01	1.5E+02
Vinyl acetate	--	--	7.0E-03 U	5.6E+00 U	9.2E+00 U	3.5E-01 U	--	--	--	--
Vinyl bromide	--	--	4.4E-01 U	7.0E+00 U	9.6E+00 U	4.4E-01 U	--	--	--	--
Vinyl chloride	--	--	1.3E+00 U	1.0E+00 U	1.6E+00 U	6.7E-02 U	6.9E-01 U	2.2E-01 U	3.3E-01 U	2.1E-01 U
Xylenes, total	ND	ND	--	--	--	--	--	--	--	--

TABLE I-6

ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES AT SOIL VAPOR MONITORING WELLS[1,2]
Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in miligrams per cubic meter (mg/m^3)

Analyte / Sample Date	SGD-MP 11/3/2011	SGD-MP-Dup 11/3/2011	SGD-MP 11/22/2011	SGD-MP-DUP 11/22/2011	SGD-MP 12/22/2011	SGD-MP-DUP 12/22/2011	SGD-MP 1/24/2012	SGD-MP-DUP 1/24/2012	SGD-MP 3/1/2012	SGD-MP-DUP 3/1/2012	SGD-MP 3/12/2012	SGD-MP-DUP 3/12/2012	SGD-MP 3/29/2012	SGD-MP-DUP 3/29/2012	SGD-DP 12/29/2003	SGD-DP 5/12/2006	SGD-DP 11/15/2006	SGD-DP 4/25/2007	SGD-DP 12/19/2007	SGD-DP 4/9/2008	SGD-DP 10/20/2008	SGD-DP 4/15/2009	SGD-DP 11/18/2009	SGD-DP 10/13/2010	SGD-DP 4/20/2011	SGD-DP-Dup 4/20/2011	SGD-DP 10/18/2011	SGD-DP 11/3/2011	SGD-DP 11/22/2011	SGD-DP 12/22/2011	SGD-DP 1/24/2012
1,1,1-Trichloroethane	8.9E-01 U	8.8E-01 U	1.2E+00 U	1.1E+00 U	4.5E-01 U	4.6E-01 U	1.6E+00 U	1.6E+00 U	4.4E-01 U	4.4E-01 U	1.5E+00 U	1.5E+00 U	8.3E-01 U	8.8E-01 U	--	ND	ND	ND	4.2E-02 U	2.8E+00 U	2.6E+00 U	9.6E-01 U	5.3E-01 U	2.6E-01 U	2.6E-01 U	1.9E-01 U	4.6E-01 U	9.2E-01 U	9.8E-01 U	1.4E-01 U	4.6E-01 U
1,1,2,2-Tetrachloroethane	1.1E+00 U	1.1E+00 U	1.5E+00 U	1.4E+00 U	5.6E-01 U	5.8E-01 U	2.0E+00 U	2.0E+00 U	5.6E-01 U	5.5E-01 U	1.8E+00 U	1.9E+00 U	1.0E+00 U	1.1E+00 U	--	--	--	--	3.5E-03 U	3.7E+00 U	3.4E+00 U	1.3E+00 U	7.0E-01 U	3.4E-01 U	3.2E-01 U	2.4E-01 U	5.8E-01 U	1.2E+00 U	1.2E+00 U	1.8E-01 U	5.8E-01 U
1,1,2-Trichloroethane	8.9E-01 U	8.8E-01 U	1.2E+00 U	1.1E+00 U	4.5E-01 U	4.6E-01 U	1.6E+00 U	1.6E+00 U	4.4E-01 U	4.4E-01 U	1.5E+00 U	1.5E+00 U	8.3E-01 U	8.8E-01 U	--	--	--	--	--	2.8E+00 U	2.6E+00 U	9.6E-01 U	5.3E-01 U	2.6E-01 U	2.6E-01 U	1.9E-01 U	4.6E-01 U	9.2E-01 U	9.8E-01 U	1.4E-01 U	4.6E-01 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.2E+01	1.3E+01	1.4E+01	1.5E+01	1.4E+01	1.4E+01	1.4E+01	1.5E+01	1.5E+01	1.0E+01	1.6E+01	1.5E+01	1.0E+01	1.1E+01	1.3E+01	4.0E+01	4.2E+01	5.1E+00	1.9E+01	2.0E+01	5.0E+01	1.3E+01	5.2E+00	6.9E+00	1.9E+00	1.8E+00	2.4E+00	4.8E+00	3.4E+00	3.6E+00	3.2E+00
1,1-Dichloroethane	6.6E-01 U	6.5E-01 U	8.8E-01 U	8.3E-01 U	3.3E-01 U	3.4E-01 U	1.2E+00 U	1.2E+00 U	3.3E-01 U	3.2E-01 U	1.1E+00 U	1.1E+00 U	6.2E-01 U	6.5E-01 U	--	ND	ND	ND	3.1E-02 U	2.1E+00 U	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.9E-01 U	1.4E-01 U	3.4E-01 U	6.8E-01 U	7.2E-01 U	1.1E-01 U	3.4E-01 U
1,1-Dichloroethene	6.6E-01	7.3E-01	9.1E-01	1.1E+00	1.1E+00	1.0E+00	1.1E+00 U	1.2E+00 U	1.3E+00	1.0E+00	1.2E+00 J	1.5E+00 J	9.1E-01	1.0E+00	1.0E+00	2.5E+00	2.6E+00	ND	2.7E+00	2.1E+00 U	2.6E+00	1.0E+00	4.8E-01	7.1E-01	1.8E-01 U	2.9E-01	3.3E-01 U	6.7E-01 U	7.1E-01 U	4.4E-01	3.3E-01 U
1,1-Difluoroethane	--	--	2.4E+00 U	2.2E+00 U	8.9E-01 U	9.1E-01 U	3.1E+00 U	3.2E+00 U	8.8E-01 U	8.6E-01 U	2.9E+00 U	3.0E+00 U	1.6E+00 U	1.7E+00 U	--	--	--	--	9.1E-02 U	6.1E+00 U	5.6E+00 U	2.0E+00 U	--	--	--	--	--	--	1.9E+00 U	2.8E-01 U	9.1E-01 U
1,2,4-Trichlorobenzene	4.9E+00 U	4.8E+00 U	6.5E+00 U	6.1E+00 U	2.4E+00 U	2.5E+00 U	8.5E+00 U	8.8E+00 U	2.4E+00 U	2.4E+00 U	8.0E+00 U	8.3E+00 U	4.5E+00 U	4.8E+00 U	--	--	--	--	5.3E+00 U	1.6E+01 U	1.4E+01 U	5.3E+00 U	3.2E+00 U	1.4E+00 UJ	1.4E+00 U	1.0E+00 U	2.5E+00 U	5.0E+00 U	5.3E+00 U	7.8E-01 U	2.5E+00 U
1,2,4-Trimethylbenzene	8.1E-01 U	7.9E-01 U	1.1E+00 U	1.0E+00 U	4.0E-01 U	4.1E-01 U	1.4E+00 U	1.4E+00 U	1.6E+00 U	1.6E+00 U	1.3E+00 U	1.4E+00 U	7.5E-01 U	7.9E-01 U	--	--	--	--	1.1E-02	2.7E+00 U	2.4E+00 U	9.0E-01 U	5.0E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	4.1E-01 U	8.2E-01 U	8.8E-01 U	1.3E-01 U	4.1E-01 U
1,2-Dibromoethane (EDB)	1.3E+00 U	1.2E+00 U	1.7E+00 U	1.6E+00 U	6.3E-01 U	6.4E-01 U	2.2E+00 U	2.3E+00 U	6.2E-01 U	6.1E-01 U	2.1E+00 U	2.2E+00 U	1.2E+00 U	1.2E+00 U	--	--	--	--	3.8E-02 U	4.1E+00 U	3.7E+00 U	1.4E+00 U	7.7E-01 U	3.7E-01 U	3.6E-01 U	2.7E-01 U	6.4E-01 U	1.3E+00 U	1.4E+00 U	2.0E-01 U	6.4E-01 U
1,2-Dichlorobenzene	9.9E-01 U	9.9E-01 U	1.3E+00 U	1.2E+00 U	4.9E-01 U	5.0E-01 U	1.7E+00 U	1.8E+00 U	4.9E-01 U	4.8E-01 U	1.6E+00 U	1.7E+00 U	9.2E-01 U	9.7E-01 U	--	--	--	--	2.4E+00 U	3.2E+00 U	2.9E+00 U	1.1E+00 U	6.0E-01 U	2.9E-01 U	2.8E-01 U	2.1E-01 U	5.0E-01 U	1.0E+00 U	1.1E+00 U	1.6E-01 U	5.0E-01 U
1,2-Dichloroethane	6.6E-01 U	6.5E-01 U	8.8E-01 U	8.3E-01 U	3.3E-01 U	3.4E-01 U	1.2E+00 U	1.2E+00 U	3.3E-01 U	3.2E-01 U	1.1E+00 U	1.1E+00 U	6.2E-01 U	6.5E-01 U	--	ND	ND	ND	3.2E-02 U	2.2E+00 U	2.0E+00 U	7.4E-01 U	4.1E-01 U	2.0E-01 U	1.9E-01 U	1.4E-01 U	3.4E-01 U	6.8E-01 U	7.2E-01 U	1.1E-01 U	3.4E-01 U
1,2-Dichloropropane	7.6E-01 U	7.4E-01 U	1.0E+00 U	9.5E-01 U	3.8E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	3.7E-01 U	3.7E-01 U	1.6E+00	1.3E+00 U	7.0E-01 U	7.4E-01 U	--	ND	ND	ND	3.6E-02 U	2.5E+00 U	2.2E+00 U	8.4E-01 U	4.7E-01 U	2.2E-01 U	2.2E-01 U	1.6E-01 U	3.9E-01 U	7.8E-01 U	8.3E-01 U	1.2E-01 U	3.9E-01 U
1,3,5-Trimethylbenzene	8.1E-01 U	7.9E-01 U	1.1E+00 U	1.0E+00 U	4.0E-01 U	4.1E-01 U	1.4E+00 U	1.4E+00 U	4.0E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	7.5E-01 U	7.9E-01 U	--	--	--	--	--	2.7E+00 U	2.4E+00 U	9.0E-01 U	5.0E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	4.1E-01 U	8.2E-01 U	8.8E-01 U	1.3E-01 U	4.1E-01 U
1,3-Butadiene	3.6E-01 U	3.6E-01 U	4.8E-01 U	4.5E-01 U	1.8E-01 U	1.8E-01 U	6.3E-01 U	6.6E-01 U	1.8E-01 U	1.8E-01 U	5.9E-01 U	6.2E-01 U	3.4E-01 U	3.6E-01 U	--	--	--	--	--	1.2E+00 U	1.1E+00 U	4.0E-01 U	2.2E-01 U	1.1E-01 U	1.0E-01 U	7.7E-02 U	1.8E-01 U	3.7E-01 U	4.0E-01 U	5.8E-02 U	1.8E-01 U
1,3-Dichlorobenzene	9.9E-01 U	9.7E-01 U	1.3E+00 U	1.2E+00 U	4.9E-01 U	5.0E-01 U	1.7E+00 U	1.8E+00 U	4.9E-01 U	4.8E-01 U	1.6E+00 U	1.7E+00 U	9.2E-01 U	9.7E-01 U	--	--	--	--	--	3.2E+00 U	2.9E+00 U	1.1E+00 U	6.0E-01 U	2.9E-01 U	2.8E-01 U	2.1E-01 U	5.0E-01 U	1.0E+00 U	1.1E+00 U	1.6E-01 U	5.0E-01 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4E-01 U	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	9.9E-01 U	9.7E-01 U	1.3E+00 U	1.2E+00 U	4.9E-01 U	5.0E-01 U	1.7E+00 U	1.8E+00 U	4.9E-01 U	4.8E-01 U	1.6E+00 U	1.7E+00 U	9.2E-01 U	9.7E-01 U	--	--	--	--	4.5E-03 U	3.2E+00 U	2.9E+00 U	1.1E+00 U	6.0E-01 U	2.9E-01 U	2.8E-01 U	2.1E-01 U	5.0E-01 U	1.0E+00 U	1.1E+00 U	1.6E-01 U	5.0E-01 U
1,4-Dioxane	2.4E+00 U	2.3E+00 U	3.1E+00 U	3.0E+00 U	1.2E+00 U	1.2E+00 U	4.1E+00 U	4.3E+00 U	1.2E+00 U	1.2E+00 U	3.9E+00 U	4.0E+00 U	2.2E+00 U	2.3E+00 U	--	--	--	--	7.3E-03 U	7.7E+00 U	7.0E+00 U	2.6E+00 U	1.5E+00 U	7.0E-01 U	6.8E-01 U	5.0E-01 U	1.2E+00 U	2.4E+00 U	2.6E+00 U	3.8E-01 U	1.2E+00 U
2,2,4-Trimethylpentane	7.7E-01 U	7.5E-01 U	1.0E+00 U	9.6E-01 U	3.8E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	3.8E-01 U	3.7E-01 U	1.2E+00 U	1.3E+00 U	7.1E-01 U	7.5E-01 U	--	--	--	--	3.5E-03 U	2.5E+00 U	2.2E+00 U	8.4E-01 U	4.7E-01 U	2.2E-01 U	2.2E-01 U	1.6E-01 U	3.9E-01 U	7.8E-01 U	8.4E-01 U	1.2E-01 U	3.9E-01 U
2,3-Dimethylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	1.9E+00 U	1.9E+00 U	2.6E+00 U	2.4E+00 U	9.7E-01 U	9.9E-01 U	3.4E+00 U	3.5E+00 U	9.6E-01 U	9.4E-01 U	3.2E+00 U	3.3E+00 U	1.8E+00 U	1.9E+00 U	--	ND	ND	ND	2.3E-02 U	1.6E+00 U	1.4E+00 U	5.3E-01 U	3.0E-01 U	1.4E-01 U	5.5E-01 U	4.1E-01 U	9.9E-01 U	2.0E+00 U	2.1E+00 U	3.1E-01 U	9.9E-01 U
2-Hexanone	2.7E+00 U	2.6E+00 U	3.6E+00 U	3.4E+00 U	1.3E+00 U	1.4E+00 U	4.7E+00 U	4.8E+00 U	1.3E+00 U	1.3E+00 U	4.4E+00 U	4.6E+00 U	2.5E+00 U	2.6E+00 U	--	--	--	--	2.1E-02 U	8.8E+00 U	7.9E+00 U	2.9E+00 U	1.8E+00 U	7.9E-01 U	7.7E-01 U	5.7E-01 U	1.4E+00 U	2.8E+00 U	2.9E+00 U	4.3E-01 U	1.4E+00 U
2-Methylpentane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Propanol	1.6E+00 U	1.6E+00 U	2.1E+00 U	2.0E+00 U	8.1E-01 U	8.2E-01 U	2.8E+00 U	2.9E+00 U	8.0E-01 U	7.9E-01 U	2.6E+00 U	2.8E+00 U	2.1E+00	1.6E+00 U	--	--	--	--	--	5.3E+00 U	8.3E+00	1.8E+00 U	1.1E+00 U	4.8E-01 U	4.6E-01 U	3.4E-01 U	8.2E-01 U	1.6E+00 U	1.8E+00 U	2.6E-01 U	8.2E-01 U
3-Chloropropene	2.0E+00 U	2.0E+00 U	2.7E+00 U	2.6E+00 U	1.0E+00 U	1.0E+00 U	3.6E+00 U	3.7E+00 U	1.0E+00 U	1.0E+00 U	3.4E+00 U	3.5E+00 U	1.9E+00 U	2.0E+00 U	--	--	--	--	--	6.7E+00 U	6.0E+00 U	2.2E+00 U	1.3E+00 U	6.0E-01 U	5.9E-01 U	4.4E-01 U	1.0E+00 U	2.1E+00 U	2.2E+00 U	3.3E-01 U	1.0E+00 U
3-Methylpentane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.6E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Ethyltoluene	8.1E-01 U	7.9E-01 U	1.1E+00 U	1.0E+00 U	4.0E-01 U	4.1E-01 U	1.4E+00 U	1.4E+00 U	4.0E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	7.5E-01 U	7.9E-01 U	--	--	--	--	--	2.7E+00 U	2.4E+00 U	9.0E-01 U	5.0E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	4.1E-01 U	8.2E-01 U	8.8E-01 U	1.3E-01 U	4.1E-01 U
4-Methyl-2-pentanone (MIBK)	6.7E-01 U	6.6E-01 U	9.0E-01 U	8.4E-01 U	3.4E-01 U	3.4E-01 U	1.2E+00 U	1.2E+00 U	3.3E-01 U	3.3E-01 U	1.1E+00 U	1.1E+00 U	6.2E-01 U	6.6E-01 U	--	--	--	--	3.1E-02 U	2.1E+00 UJ	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.9E-01 U	1.4E-01 U	3.4E-01 U	6.9E-01 U	7.3E-01 U	1.1E-01 U	3.4E-01 U
Acetone	1.6E+00 U	1.5E+00 U	2.1E+00 U	1.9E+00 U	3.0E+00	1.9E+00	2.7E+00 U	2.8E+00 U	7.7E-01 U	7.6E-01 U	6.4E+00 U	6.6E+00 U	3.6E+00 U	3.8E+00 U	--	ND	ND	ND	7.5E-02 U	5.1E+00 U	4.8E+00	1.7E+00 U	1.0E+00 U	4.6E-01 U	4.4E-01 U	3.3E-01 U	8.0E-01 U	1.6E+00 U	1.7E+00 U	2.5E-01 U	8.0E-01 U
alpha-Chlorotoluene	8.5E-01 U	8.3E-01 U	1.1E+00 U	1.1E+00 U	4.2E-01 U	4.3E-01 U	1.5E+00 U	1.5E+00 U	1.7E+00 U	1.6E+00 U	1.4E+00 U	1.4E+00 U	7.9E-01 U	8.3E-01 U	--	--	--	--	--	2.8E+00 U	2.6E+00 U	9.6E-01 U	5.3E-01 U	2.6E-01 U	2.4E-01 U	1.8E-01 U	4.3E-01 U	8.7E-01 U	9.3E-01 U	1.4E-01 U	4.3E-01 U
Benzene	5.2E-01 U	5.1E-01 U	7.0E-01 U	6.5E-01 U	2.6E-01 U	2.7E-01 U	9.2E-01 U	9.5E-01 U	1.0E+00	8.6E-01	8.6E-01 U	8.9E-01 U	4.9E-01 U	5.1E-01 U	--	7.1E-02	ND	ND	2.5E-02 U	1.7E+00 U	1.6E+00 U	5.8E-01 U	3.2E-01 U	1.6E-01 U	1.5E-01 U	1.1E-01 U	2.7E-01 U	5.4E-01 U	5.7E-01 U	8.4E-02 U	2.7E-01 U
Bromodichloromethane	1.1E+00 U	1.1E+00 U	1.5E+00 U	1.4E+00 U	5.5E-01 U	5.6E-01 U	1.9E+00 U	2.0E+00 U	5.4E-01 U	5.4E-01 U	1.8E+00 U	1.9E+00 U	1.0E+00 U	1.1E+00 U	--	--	--	--	5.2E-02 U	3.5E+00 U	3.2E+00 U	1.2E+00 U	6.7E-01 U	3.2E-01 U	3.1E-01 U	2.3E-01 U	5.6E-01 U	1.1E+00 U	1.2E+00 U	1.8E-01 U	5.6E-01 U
Bromoform	1.7E+00 U	1.7E+00 U	2.2E+00 U	2.1E+00 U	8.5E-01 U	8.7E-01 U	3.0E+00 U	3.1E+00 U	3.3E+00 U	3.3E+00 U	2.8E+00 U	2.9E+00 U	1.6E+00 U	1.7E+00 U	--	--	--	--	8.1E-02 U	5.5E+00 U	5.0E+00 U	1.9E+00 U	1.0E+00 U	5.0E-01 U	4.8E-01 U	3.6E-01 U	8.7E-01 U	1.7E+00 U	1.8E+00 U	2.7E-01 U	8.7E-01 U
Bromomethane	6.4E-01 U	6.2E-01 U	8.5E-01 U	8.0E-01 U	3.2E-01 U	3.3E-01 U	1.1E+00 U	1.2E+00 U	3.1E-01 U	3.1E-01 U	1.0E+01 U	1.1E+01 U	5.9E+00 U	6.2E+00 U	--	--	--	--	3.1E-02 U	2.1E+00 U	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.8E-01 U	1.3E-01 U	3.3E-01 U	6.5E-01 U	7.0E-01 U	1.0E-01 U	3.3E-01 U
Carbon disulfide	2.0E+00 U	2.0E+00 U	2.7E+00 U	2.6E+00 U	2.6E-01 U	2.6E-01 U	3.6E+00 U	3.7E+00 U	2.8E-01	2.5E-01 U	3.3E+00 U	3.5E+00 U	1.9E+00 U	2.0E+00 U	ND	--	ND	ND	2.4E-02 U	1.7E+00 U	2.0E+00	5.6E-01 U	3.1E-01 U	1.5E-01 U	5.8E-01 U	4.3E-01 U	1.0E+00 U	2.1E+00 U	2.2E+00 U	8.2E-02 U	1.0E+00 U
Carbon tetrachloride	1.3E+01	1.4E+01	1.5E+01	1.3E+01	1.7E+01	1.8E+01	1.6E+01	1.7E+01	1.7E+01	1.2E+01	1.1E+01	1.2E+01	1.2E+01	1.4E+01	1.4E+01	2.9E+01	2.8E+01	3.7E+00	6.1E+00	9.9E+00	2.7E+01	1.2E+01	4.5E+00	7.4E+00	2.5E+00	2.4E+00	2.7E+00	4.9E+00	5.4E+00	4.4E+00	3.5E+00
Chlorobenzene	7.6E-01 U	7.4E-01 U	1.0E+00 U	9.4E-01 U	3.8E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	3.7E-01 U	3.7E-01 U	1.2E+00 U	1.3E+00 U	7.0E-01 U	7.4E-01 U	--	--	--	--	3.6E-02 U	2.5E+00 U	2.2E+00 U	8.4E-01 U	4.7E-01 U	2.2E-01 U	2.2E-01 U	1.6E-01 U	3.9E-01 U	7.7E-01 U	8.2E-01 U	1.2E-01 U	3.9E-01 U
Chloroethane	1.7E+00 U	1.7E+00 U	2.3E+00 U	2.2E+00 U	8.6E-01 U	8.9E-01 U	3.0E+00 U	3.1E+00 U	8.5E-01 U	8.4E-01 U	2.8E+00 U	3.0E+00 U	1.6E+00 U	1.7E+00 U	--	--	--	--	2.1E-02 U	1.4E+00 U	1.3E+00 U	4.8E-01 U	2.7E-01 U	1.3E-01 U	4.9E-01 U	3.7E-01 U	8.9E-01 U	1.8E+00 U	1.9E+00 U	2.8E-01 U	8.9E-01 U
Chloroform	1.8E+02	2.0E+02	2.0E+02	1.8E+02	2.3E+02	2.4E+02	2.2E+02	2.3E+02	2.4E+02	1.6E+02	2.4E+02	2.4E+02	1.8E+02	1.9E+02	1.9E+01	4.2E+01	4.3E+01	5.7E+00	9.5E+00	1.6E+01	4.7E+01	1.9E+01	1.0E+01	2.1E+01	1.2E+01	1.1E+01	1.3E+01	1.9E+01	1.7E+01	1.8E+01	1.4E+01
Chloromethane	1.4E+00 U	1.3E+00 U	1.8E+00 U	1.7E+00 U	6.8E-01 U	6.9E-01 U	2.4E+00 U	2.4E+00 U	6.7E-01 U	6.6E-01 U	5.5E+00 U	5.8E+00 U	3.1E+00 U	3.3E+00 U	--	--	--	--	--	4.4E+00 U	4.0E+00 U	1.5E+00 U	8.8E-01 U	4.0E-01 U	3.9E-01 U	2.9E-01 U	6.9E-01 U	1.4E+00 U	1.5E+00 U	2.2E-01 U	6.9E-01 U
cis-1,2-Dichloroethene	6.5E-01 U	7.3E-01 U	8.7E-01 U	8.1E-01 U	3.2E-01 U	3.3E-01 U	1.1E+00 U	1.2E+00 U	3.2E-01 U	3.2E-01 U	1.1E+00 U	1.1E+00 U	6.0E-01 U	6.4E-01 U	--	--	--	--	3.1E-02 U	2.1E+00 U	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.8E-01 U	1.4E-01 U	3.3E-01 U	6.7E-01 U	7.1E-01 U	1.0E-01 U	3.3E-01 U
cis-1,3-Dichloropropene	7.4E-01 U	7.4E-01 U	9.9E-01 U	9.3E-01 U	3.7E-01 U	3.8E-01 U	1.3E+00 U	1.3E+00 U	3.7E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	6.9E-01 U	7.3E-01 U	--	--	--	--	2.3E-03 U	2.5E+00 U	2.2E+00 U	8.4E-01 U	4.7E-01 U	2.2E-01 U	2.1E-01 U	1.6E-01 U	3.8E-01 U	7.6E-01 U	8.1E-01 U	1.2E-01 U	3.8E-01 U
Cyclohexane	5.6E-01 U	5.5E-01 U	7.5E-01 U	7.0E-01 U	3.2E-01	3.2E-01	9.9E-01 U	1.0E+00 U	3.6E+00	2.9E+00	9.2E-01 U	9.6E-01 U	5.2E-01 U	5.5E-01 U	--	6.3E-01	ND	ND	--	1.8E+00 U	1.6E+00 U	6.0E-01 U	3.3E-01 U	1.6E-01 U	1.6E-01 U	1.2E-01 U	2.9E-01 U	5.8E-01 U	6.2E-01 U	9.1E-02 U	2.9E-01 U
Cyclohexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclopentane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	1.4E+00 U	1.4E+00 U	1.9E+00 U	1.7E+00 U	7.0E-01 U	7.2E-01 U	2.4E+00 U	2.5E+00 U	6.9E-01 U	6.8E-01 U	2.3E+00 U	2.4E+00 U	1.3E+00 U	1.4E+00 U	--	--	--	--	6.8E-02 U	4.6E+00 U	4.2E+00 U	1.6E+00 U	8.7E-01 U	4.2E-01 U	4.0E-01 U	3.0E-01 U	7.2E-01 U	1.4E+00 U	1.5E+00 U	2.2E-01 U	7.2E-01 U
Dichlorodifluoromethane (Freon 12)	1.2E+01	1.2E+01	1.4E+01	1.5E+01	1.6E+01	1.7E+01	1.7E+01 J	1.8E+01 J	1.7E+01	1.2E+01	1.3E+01	1.3E+01	9.4E+00	9.8E+00	--	1.7E+01	1.8E+01	ND	5.9E-03 U	9.9E+00	2.0E+01	7.4E+00	3.4E+00	5.9E+00	1.6E+00	1.5E+00	2.2E+00	3.4E+00	3.6E+00	3.6E+00	3.1E+00 J
Dichlorotetrafluoroethane (Freon 114)	1.1E+00 U	1.1E+00 U	1.5E+00 U	1.4E+00 U	5.7E-01 U	5.9E-01 U	2.0E+00 U	2.1E+00 U	5.7E-01 U	5.6E-01 U	1.9E+00 U	2.0E+00 U	1.1E+00 U	1.1E+00 U	--	--	--	--	--	3.7E+00 U	3.4E+00 U	1.3E+00 U	7.0E-01 U	3.4E-01 U	3.3E-01 U	2.4E-01 U	5.9E-01 U	1.2E+00 U	1.2E+00 U	1.8E-01 U	5.9E-01 U
Ethanol	1.2E+00 U	1.2E+00 U	1.6E+00 U	1.5E+00 U	6.2E-01 U	6.3E-01 U	2.2E+00 U	2.2E+00 U	6.1E-01 U	6.0E-01 U	2.0E+00 U	2.1E+00 U	1.1E+00 U	1.2E+00 U	--	--	--	--	--	4.0E+00 U	3.6E+00 U	1.3E+00 U	8.1E-01 U	3.6E-01 U	3.5E-01 U	2.6E-01 U	6.3E-01 U	1.3E+00 U	1.3E+00 U	2.0E-01 U	6.3E-01 U
Ethyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	7.2E-02 U	7.6E+00 U	6.9E+00 U	2.5E+00 U	--	--	--	--	--	--	--	--	--
Ethylbenzene	7.1E-01 U	7.0E-01 U	9.5E-01 U	8.9E-01 U	3.6E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	3.5E-01 U	3.5E-01 U	1.2E+00 U	1.2E+00 U	6.6E-01 U	7.0E-01 U	--	ND	ND	ND	3.4E-02 U	2.3E+00 U	2.1E+00 U	7.8E-01 U	4.3E-01 U	2.1E-01 U	2.0E-01 U	1.5E-01 U	3.6E-01 U	7.3E-01 U	7.8E-01 U	1.1E-01 U	3.6E-01 U
Heptane	6.7E-01 U	6.6E-01 U	9.0E-01 U	8.4E-01 U	3.4E-01 U	3.4E-01 U	1.2E+00 U	1.2E+00 U	2.3E+00	2.1E+00	1.1E+00 U	1.1E+00 U	6.2E-01 U	6.6E-01 U	--	ND	ND	ND	--	2.1E+00 U	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.9E-01 U	1.4E-01 U	3.4E-01 U	6.9E-01 U	7.3E-01 U	1.1E-01 U	3.4E-01 U
Hexachlorobutadiene	7.0E+00 U	6.9E+00 U	9.3E+00 U	8.7E+00 U	3.5E+00 U	3.6E+00 U	1.2E+01 U	1.3E+01 U	3.4E+00 U	3.4E+00 U	1.1E+01 U	1.2E+01 U	6.5E+00 U	6.9E+00 U	--	--	--	--	--	2.3E+01 U	2.1E+01 U	7.6E+00 U	4.6E+00 U	2.1E+00 UJ	2.0E+00 U	1.5E+00 U	3.6E+00 U	7.2E+00 U	7.6E+00 U	1.1E+00 U	3.6E+00 U
Hexane	5.8E-01 U	5.7E-01 U	7.7E-01 U	7.2E-01 U	2.9E-01 U	3.0E-01 U	1.0E+00 U	1.0E+00 U	9.8E+00	6.9E+00	9.5E-01 U	9.9E-01 U	5.4E-01 U	5.7E-01 U	--	ND	ND	ND	1.9E+00 U	1.9E+00 U	1.8E+00 U	6.6E-01 U	3.7E-01 U	1.8E-01 U	1.6E-01 U	1.2E-01 U	3.0E-01 U	5.9E-01 U	6.3E-01 U	9.3E-02 U	3.0E-01 U
Isobutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopentane (2-methylbutane)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	8.1E-01 U	7.9E-01 U	1.1E+00 U	1.0E+00 U	4.0E-01 U	4.1E-01 U	1.4E+00 U	1.4E+00 U	4.0E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	7.5E-01 U	7.9E-01 U	--	--	--	--	--	2.7E+00 U	2.4E+00 U	9.0E-01 U	5.0E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	4.1E-01 U	8.2E-01 U	8.8E-01 U	1.3E-01 U	4.1E-01 U
m,p-Xylene	7.1E-01 U	7.0E-01 U	9.5E-01 U	8.9E-01 U	3.6E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	3.5E-01 U	3.5E-01 U	1.2E+00 U	1.2E+00 U	6.6E-01 U	7.0E-01 U	--	--	--	--	3.4E-02 U	2.3E+00 U	2.1E+00 U	7.8E-01 U	4.3E-01 U	2.1E-01 U	2.0E-01 U	1.5E-01 U	3.6E-01 U	7.3E-01 U	7.8E-01 U	1.1E-01 U	3.6E-01 U
Methyl tert-butyl ether	5.9E-01 U	5.8E-01 U	7.9E-01 U	7.4E-01 U	3.0E-01 U	3.0E-01 U	1.0E+00 U	1.1E+00 U	2.9E-01 U	2.9E-01 U	9.7E-01 U	1.0E+00 U	5.5E-01 U	5.8E-01 U	--	--	--	--	1.2E-02 U	1.9E+00 U	1.8E+00 U	6.6E-01 U	3.7E-01 U	1.8E-01 U	1.7E-01 U	1.2E-01 U	3.0E-01 U	6.0E-01 U	6.4E-01 U	9.5E-02 U	3.0E-01 U
Methylene chloride	9.3E-01	9.6E-01	1.1E+00	1.2E+00	1.2E+00	1.3E+00	2.4E+00	2.4E+00	1.4E+00	1.0E+00	9.3E+00 U	9.7E+00 U	5.3E+00 U	5.6E+00 U	4.7E-01	6.2E-01	ND	ND	1.2E-01	1.8E+00 U	1.8E+00	6.2E-01 U	3.5E-01 U	1.9E-01	1.8E-01	1.4E-01	4.1E-01	5.8E-01 U	6.2E-01 U	1.7E-01	5.0E-01
n-Propylbenzene	8.1E-01 U	7.9E-01 U	1.1E+00 U	1.0E+00 U	4.0E-01 U	4.1E-01 U	1.4E+00 U	1.4E+00 U	4.0E-01 U	3.9E-01 U	1.3E+00 U	1.4E+00 U	7.5E-01 U	7.9E-01 U	--	--	--	--	7.5E-01 U	2.7E+00 U	2.4E+00 U	9.0E-01 U	5.0E-01 U	2.4E-01 U	2.3E-01 U	1.7E-01 U	4.1E-01 U	8.2E-01 U	8.8E-01 U	1.3E-01 U	4.1E-01 U
o-Xylene	7.1E-01 U	7.0E-01 U	9.5E-01 U	8.9E-01 U	3.6E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	3.5E-01 U	3.5E-01 U	1.2E+00 U	1.2E+00 U	6.6E-01 U	7.0E-01 U	--	--	--	--	3.4E-02 U	2.3E+00 U	2.1E+00 U	7.8E-01 U	4.3E-01 U	2.1E-01 U	2.0E-01 U	1.5E-01 U	3.6E-01 U	7.3E-01 U	7.8E-01 U	1.1E-01 U	3.6E-01 U
Propene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	--	3.6E+00 U	3.3E+00 U	1.2E+00 U	--	--	--	--	--	--	--	--	--
Styrene	7.0E-01 U	6.8E-01 U	9.3E-01 U	8.7E-01 U	3.5E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	3.4E-01 U	3.4E-01 U	1.1E+00 U	1.2E+00 U	6.9E-01	6.8E-01 U	--	ND	ND	ND	2.2E-03 U	2.3E+00 U	2.1E+00 U	7.8E-01 U	4.3E-01 U	2.1E-01 U	2.0E-01 U	1.5E-01 U	3.6E-01 U	7.2E-01 U	7.6E-01 U	1.1E-01 U	3.6E-01 U
Sulfur Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.4E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	1.1E+00 U	1.1E+00 U	1.5E+00 U	1.4E+00 U	1.8E+00	1.9E+00	6.4E+00	5.3E+00	1.5E+00	9.3E-01	1.8E+00 U	1.9E+00 U	1.9E+00	1.7E+00	1.7E+00	5.1E+00	5.2E+00	ND	7.5E-01	3.6E+00 U	3.3E+00 U	1.3E+00	6.8E-01 U	8.2E-01	4.3E-01	3.3E-01	5.7E-01 U	1.1E+00 U	1.2E+00 U	3.5E-01	6.4E-01
Tetrahydrofuran	4.8E-01 U	4.7E-01 U	6.4E-01 U	6.0E-01 U	2.4E-01 U	2.5E-01 U	8.4E-01 U	8.7E-01 U	2.4E-01 U	2.4E-01 U	7.9E-01 U	8.2E-01 U	4.5E-01 U	4.7E-01 U	--	ND	ND	ND	--	1.6E+00 U	1.4E+00 U	5.3E-01 U	3.0E-01 U	1.4E-01 U	1.4E-01 U	1.0E-01 U	2.5E-01 U	5.0E-01 U	5.3E-01 U	7.8E-02 U	2.5E-01 U
Toluene	6.2E-01 U	6.1E-01 U	8.4E-01	1.9E+00	3.1E-01 U	3.2E-01 U	1.1E+00 U	1.1E+00 U	3.0E-01 U	3.0E-01 U	1.0E+00 U	1.1E+00	5.7E-01 U	6.1E-01 U	--	ND	ND	ND	2.9E-02 U	1.9E+00 U	5.5E+00	6.6E-01 U	3.7E-01 U	1.8E-01 U	1.8E-01 U	1.3E-01 U	3.2E-01 U	6.3E-01 U	6.7E-01 U	9.9E-02 U	3.2E-01 U
trans-1,2-Dichloroethene	6.5E-01 U	6.4E-01 U	8.7E-01 U	8.1E-01 U	3.2E-01 U	3.3E-01 U	1.1E+00 U	1.2E+00 U	3.2E-01 U	3.2E-01 U	1.1E+00 U	1.1E+00 U	6.0E-01 U	6.4E-01 U	--	--	--	--	3.1E-02 U	2.1E+00 U	1.9E+00 U	7.2E-01 U	4.0E-01 U	1.9E-01 U	1.8E-01 U	1.4E-01 U	3.3E-01 U	6.7E-01 U	7.1E-01 U	1.0E-01 U	3.3E-01 U
trans-1,3-Dichloropropene	7.4E-01 U	7.3E-01 U	9.9E-01 U	9.3E-01 U	3.7E-01 U	3.8E-01 U	1.3E+00 U	1.3E+00 U	3.7E-01 U	3.6E-01 U	1.2E+00 U	1.3E+00 U	6.9E-01 U	7.3E-01 U	--	--	--	--	1.2E+01 U	2.5E+00 U	2.2E+00 U	8.4E-01 U	4.7E-01 U	2.2E-01 U	2.1E-01 U	1.6E-01 U	3.8E-01 U	7.6E-01 U	8.1E-01 U	1.2E-01 U	3.8E-01 U
Trichloroethene	8.8E+00	9.5E+00	9.2E+00	8.6E+00	1.2E+01	1.3E+01	1.1E+01	1.1E+01	1.1E+01	7.9E+00	1.2E+01	1.2E+01	1.1E+01	1.1E+01	6.6E+00	1.3E+01	1.3E+01	ND	2.2E+00	4.4E+00	9.3E+00	4.1E+00	2.1E+00	3.6E+00	1.7E+00	1.7E+00	1.4E+00	2.3E+00	2.0E+00	2.5E+00	2.1E+00
Trichlorofluoromethane (Freon 11)	3.2E+02	3.4E+02	3.8E+02	3.7E+02	3.8E+02	3.9E+02	4.2E+02 J	4.2E+02 J	4.0E+02	2.8E+02	3.8E+02	3.7E+02	2.7E+02	2.8E+02	2.6E+02	1.0E+03	1.0E+03	9.7E+01	9.7E+02	5.0E+02	9.7E+02	3.6E+02	1.7E+02	2.3E+02	7.0E+01	6.8E+01	9.6E+01	1.6E+02	1.9E+02	1.3E+02	1.2E+02 J
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0E-03 U	7.4E+00 U	6.7E+00 U	2.5E+00 U	--	--	--	--	--	--	--	--	--
Vinyl bromide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.2E+00 U	8.3E+00 U	3.1E+00 U	--	--	--	--	--	--	--	--	--
Vinyl chloride	4.2E-01 U	4.1E-01 U	5.6E-01 U	5.2E-01 U	2.1E-01 U	2.1E-01 U	7.3E-01 U	7.6E-01 U	2.1E-01 U	2.0E-01 U	6.9E-01 U	7.2E-01 U	3.9E-01 U	4.1E-01 U	--	--	--	--	2.0E-02 U	1.4E+00 U	1.2E+00 U	4.6E-01 U	2.6E-01 U	1.2E-01 U	1.2E-01 U	8.9E-02 U	2.1E-01 U	4.3E-01 U	4.6E-01 U	6.7E-02 U	2.1E-01 U
Xylenes, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE I-6

ANALYTICAL RESULTS FOR SOIL VAPOR SAMPLES AT SOIL VAPOR MONITORING WELLS[1,2]

Page-Trowbridge Ranch Landfill
Pinal County, Arizona

Concentrations shown in miligrams per cubic meter (mg/m^3)

Analyte / Sample Date	SGD-DP 3/1/2012	SGD-DP 3/12/2012	SGD-DP 3/29/2012	SGD-Well 12/29/2003	SGD-Well 5/12/2006	SGD-Well 11/3/2011	SGD-Well 12/22/2011	SGD-well 3/5/2012	MW-2 5/12/2006	MW-2 11/15/2006	MW-2 4/25/2007	MW-2[4] 12/19/2007	MW-2 4/9/2008
1,1,1-Trichloroethane	3.3E-01 U	4.7E-01 U	2.4E-01 U	--	ND	1.9E-02 U	9.3E-02 U	7.6E-02 U	ND	ND	ND	1.8E-02 U	7.5E-03 U
1,1,2,2-Tetrachloroethane	4.1E-01 U	5.9E-01 U	3.0E-01 U	--	--	2.3E-02 U	1.2E-01 U	9.6E-02 U	--	--	--	3.5E-03 U	9.8E-03 U
1,1,2-Trichloroethane	3.3E-01 U	4.7E-01 U	2.4E-01 U	--	--	1.9E-02 U	9.3E-02 U	7.6E-02 U	--	--	--	--	7.5E-03 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	6.7E+00	4.2E+00	2.8E+00	1.2E-01	ND	8.4E-02	1.3E-01 U	6.2E-01	ND	ND	ND	--	1.1E-02 U
1,1-Dichloroethane	2.4E-01 U	3.5E-01 U	1.8E-01 U	--	ND	1.4E-02 U	6.9E-02 U	5.7E-02 U	ND	ND	ND	1.4E-02 U	5.6E-03 U
1,1-Dichloroethene	7.1E-01	7.1E-01 J	3.4E-01	1.1E-02	ND	1.4E-02 U	6.8E-02 U	5.6E-02 U	ND	ND	ND	1.3E-02 U	5.5E-03 U
1,1-Difluoroethane	6.5E-01 U	9.2E-01 U	4.7E-01 U	--	--	--	1.6E+02 J	1.5E-01 U	--	--	--	2.9E+01 E	1.6E-02 U
1,2,4-Trichlorobenzene	1.8E+00 U	2.5E+00 U	1.3E+00 U	--	--	1.0E-01 U	5.1E-01 U	4.2E-01 U	--	--	--	1.5E-02 U	4.1E-02 U
1,2,4-Trimethylbenzene	1.2E+00 U	4.2E-01 U	2.2E-01 U	--	--	1.7E-02 U	8.4E-02 U	6.9E-02 U	--	--	--	--	7.0E-03 U
1,2-Dibromoethane (EDB)	4.6E-01 U	6.6E-01 U	3.4E-01 U	--	--	2.6E-02 U	1.3E-01 U	1.1E-01 U	--	--	--	--	1.1E-02 U
1,2-Dichlorobenzene	3.6E-01 U	5.1E-01 U	2.6E-01 U	--	--	2.0E-02 U	1.0E-01 U	8.4E-02 U	--	--	--	1.9E+00 U	8.4E-03 U
1,2-Dichloroethane	2.4E-01 U	3.5E-01 U	1.8E-01 U	--	ND	1.4E-02 U	6.9E-02 U	5.7E-02 U	ND	ND	ND	1.4E-02 U	5.7E-03 U
1,2-Dichloropropane	2.8E-01 U	4.0E-01 U	2.0E-01 U	--	ND	1.6E-02 U	7.9E-02 U	6.5E-02 U	ND	ND	ND	1.6E-02 U	6.5E-03 U
1,3,5-Trimethylbenzene	2.9E-01 U	4.2E-01 U	2.2E-01 U	--	--	1.7E-02 U	8.4E-02 U	6.9E-02 U	--	--	--	--	7.0E-03 U
1,3-Butadiene	1.3E-01 U	1.9E-01 U	9.7E-02 U	--	--	7.6E-03 U	3.8E-02 U	3.1E-02 U	--	--	--	--	3.1E-03 U
1,3-Dichlorobenzene	3.6E-01 U	5.1E-01 U	2.6E-01 U	--	--	2.0E-02 U	1.0E-01 U	8.4E-02 U	--	--	--	--	8.4E-03 U
1,3-Dichloropropane	--	--		--	--	--	--	--	--	--	--	6.3E-02 U	--
1,4-Dichlorobenzene	3.6E-01 U	5.1E-01 U	2.6E-01 U	--	--	2.0E-02 U	1.0E-01 U	8.4E-02 U	--	--	--	--	8.4E-03 U
1,4-Dioxane	8.6E-01 U	1.2E+00 U	6.3E-01 U	--	--	4.9E-02 U	2.5E-01 U	2.0E-01 U	--	--	--	7.7E+00 U	2.0E-02 U
2,2,4-Trimethylpentane	2.8E-01 U	4.0E-01 U	2.0E-01 U	--	--	1.6E-02 U	8.0E-02 U	6.5E-02 U	--	--	--	--	6.5E-03 U
2,3-Dimethylbutane	--	--		--	ND	--	--	--	ND	--	--	--	--
2-Butanone (MEK)	7.1E-01 U	1.0E+00 U	5.2E-01 U	--	8.3E-01	4.0E-02 U	2.0E-01 U	1.6E-01 U	ND	ND	ND	6.5E-03	2.1E-02
2-Hexanone	9.8E-01 U	1.4E+00 U	7.2E-01 U	--	--	5.6E-02 U	2.8E-01 U	2.3E-01 U	--	--	--	5.8E-02 U	2.3E-02 U
2-Methylpentane	--	--		--	ND	--	--	--	ND	--	--	--	--
2-Propanol	5.9E-01 U	9.1E-01	4.3E-01 U	--	--	3.4E-02 U	1.7E-01 U	1.4E-01 U	--	--	--	--	1.4E-02 U
3-Chloropropene	7.5E-01 U	1.1E+00 U	5.5E-01 U	--	--	4.3E-02 U	2.1E-01 U	1.8E-01 U	--	--	--	2.4E-03 U	1.7E-02 U
3-Methylpentane	--	--		--	ND	--	--	-	ND	--	--	--	--
4-Ethyltoluene	2.9E-01 U	4.2E-01 U	2.2E-01 U	--	--	1.7E-02 U	8.4E-02 U	6.9E-02 U	--	--	--	--	7.0E-03 U
4-Methyl-2-pentanone (MIBK)	2.4E-01 U	3.5E-01 U	1.8E-01 U	--	--	1.4E-02 U	7.0E-02 U	5.7E-02 U	--	--	--	1.4E-02 U	5.6E-03 UJ
Acetone	5.7E-01 U	2.0E+00 U	1.0E+00 U	--	3.4E-01	4.4E-02	1.6E-01 U	3.3E-01 U	4.6E+01	ND	ND	3.4E-02 U	9.4E-02
alpha-Chlorotoluene	1.2E+00 U	4.4E-01 U	2.3E-01 U	--	--	1.8E-02 U	8.8E-02 U	7.2E-02 U	--	--	--		7.5E-03 U
Benzene	1.9E-01 U	2.7E-01 U	1.4E-01 U	--	ND	1.1E-02 U	5.5E-02 U	4.5E-02 U	ND	ND	ND	4.5E-03 U	4.5E-03 U
Bromodichloromethane	4.0E-01 U	5.7E-01 U	2.9E-01 U	--	--	2.3E-02 U	1.1E-01 U	9.4E-02 U	--	--	--	2.3E-02 U	9.3E-03 U
Bromoform	2.5E+00 U	8.8E-01 U	4.5E-01 U	--	--	3.5E-02 U	1.8E-01 U	1.4E-01 U	--	--	--	--	1.4E-02 U
Bromomethane	2.3E-01 U	3.3E+00 U	1.7E+00 U	--	--	1.3E-02 U	6.6E-02 U	5.4E-01 U	--	--	--	1.4E-02 U	5.6E-03 U
Carbon disulfide	1.9E-01 U	1.6E+00 J	5.4E-01 U	4.1E+01		4.3E-02 U	2.1E-01 U	1.7E-01 U		ND	ND	5.6E-03 U	9.4E-03
Carbon tetrachloride	7.4E+00	3.7E+00	3.3E+00	1.3E-01	ND	4.5E-02	1.1E-01 U	6.6E-01	ND	ND	ND	2.1E-02 U	9.3E-03
Chlorobenzene	2.8E-01 U	3.9E-01 U	2.0E-01 U	--	--	1.6E-02 U	7.9E-02 U	6.4E-02 U	--	--	--	1.6E-02 U	6.5E-03 U
Chloroethane	6.3E-01 U	9.0E-01 U	4.6E-01 U	--	--	3.6E-02 U	1.8E-01 U	1.5E-01 U	--	--	--	9.1E-03 U	3.7E-03 U
Chloroform	2.7E+01	6.3E+01	1.3E+01	2.5E-01	ND	1.4E-01	8.3E-02 U	3.0E+00	ND	9.9E-01	ND	8.5E+02	6.6E-03 U
Chloromethane	5.0E-01 U	1.8E+00 U	9.0E-01 U	--	--	2.8E-02 U	1.4E-01 U	2.9E-01 U	--	--	--	--	1.1E-02 U
cis-1,2-Dichloroethene	2.4E-01 U	3.4E-01 U	1.7E-01 U	--	--	1.4E-02 U	6.8E-02 U	5.6E-02 U	--	--	--	2.1E-02	5.6E-03 U
cis-1,3-Dichloropropene	2.7E-01 U	3.9E-01 U	2.0E-01 U	--	--	1.6E-02 U	7.8E-02 U	6.4E-02 U	--	--	--	2.5E+00 U	6.5E-03 U
Cyclohexane	3.7E-01	2.9E-01 U	1.5E-01 U	--	ND	1.2E-02 U	5.9E-02 U	4.8E-02 U	ND	ND	1.2E-02	--	4.7E-03 U
Cyclohexanone	--	--		--	ND	--	--	--	ND	--	--	--	--
Cyclopentane	--	--		--	ND	--	--	--	ND	--	--	--	--
Dibromochloromethane	5.1E-01 U	7.3E-01 U	3.7E-01 U	--	--	2.9E-02 U	1.4E-01 U	1.2E-01 U	--	--	--	1.2E-02 U	1.2E-02 U
Dichlorodifluoromethane (Freon 12)	5.9E+00	3.0E+00	2.3E+00	--	ND	1.4E-01	8.4E-02 U	4.2E-01	ND	ND	ND	1.2E+01	2.5E-02
Dichlorotetrafluoroethane (Freon 114)	4.2E-01 U	6.0E-01 U	3.0E-01 U	--	--	2.4E-02 U	1.2E-01 U	9.8E-02 U	--	--	--	--	9.8E-03 U
Ethanol	4.5E-01 U	6.4E-01 U	3.3E-01 U	--	--	2.6E-02 U	1.3E-01 U	1.0E-01 U	--	--	--	--	1.8E-02
Ethyl acetate	--	--		--	--	--	--	--	--	ND	ND	--	2.0E-02 U
Ethylbenzene	2.6E-01 U	3.7E-01 U	1.9E-01 U	--	ND	1.5E-02 U	7.4E-02 U	6.1E-02 U	ND	ND	ND	1.5E-02 U	6.1E-03 U
Heptane	2.4E-01 U	3.5E-01 U	1.8E-01 U	--	ND	1.4E-02 U	7.0E-02 U	5.7E-02 U	1.7E+01	3.8E-01	ND	--	5.6E-03 U
Hexachlorobutadiene	2.6E+00 U	3.6E+00 U	1.9E+00 U	--	--	1.4E-01 U	7.3E-01 U	6.0E-01 U	--	--	--	--	6.0E-02 U
Hexane	5.7E-01	3.0E-01 U	1.5E-01 U	--	ND	1.2E-02 U	6.0E-02 U	4.9E-02 U	ND	ND	ND	6.6E-01 U	5.1E-03 U
Isobutane	--	--		--	ND	--	--	--	ND	--	--	--	--
Isopentane (2-methylbutane)	--	--		--	ND	--	--	--	ND	--	--	--	--
Isopropylbenzene	2.9E-01 U	4.2E-01 U	2.2E-01 U	--	--	1.7E-02 U	8.4E-02 U	6.9E-02 U	--	--	--		7.0E-03 U
m,p-Xylene	2.6E-01 U	3.7E-01 U	1.9E-01 U	--	--	1.5E-02 U	7.4E-02 U	6.1E-02 U	--	--	--	1.5E-02 U	6.1E-03 U
Methyl tert-butyl ether	2.2E-01 U	3.1E-01 U	1.6E-01 U	--	--	1.2E-02 U	6.2E-02 U	5.0E-02 U	--	--	--	1.8E-03 U	5.1E-03 U
Methylene chloride	4.2E-01	3.0E+00 U	1.5E+00 U	3.6E-03	ND	1.2E-02 U	5.9E-02 U	4.9E-01 U	ND	ND	ND	1.2E-02 U	4.9E-03 U
n-Propylbenzene	2.9E-01 U	4.2E-01 U	2.2E-01 U	--	--	1.7E-02 U	8.4E-02 U	6.9E-02 U	--	--	--	9.0E-01 U	7.0E-03 U
o-Xylene	2.6E-01 U	3.7E-01 U	1.9E-01 U	--	--	1.5E-02 U	7.4E-02 U	6.1E-02 U	--	--	--	1.5E-02 U	6.1E-03 U
Propene	--	--		--	ND	--	--	--	ND	ND	ND	--	9.5E-03 U
Styrene	2.6E-01 U	3.7E-01	1.9E-01 U	--	ND	1.4E-02 U	7.3E-02 U	6.0E-02 U	ND	ND	ND	1.5E-02 U	6.1E-03 U
Sulfur Dioxide	--	--		--	1.6E-01	--	--	--	ND	--	--	--	--
Tetrachloroethene	5.3E-01	9.2E-01	3.3E-01	1.1E-02	ND	2.3E-02 U	1.2E-01 U	9.5E-02 U	ND	ND	ND	2.3E-02 U	9.5E-03 U
Tetrahydrofuran	1.8E-01 U	2.5E-01 U	1.3E-01 U	--	ND	1.0E-02 U	5.0E-02 U	4.1E-02 U	1.8E+01	ND	ND	--	1.2E-02
Toluene	2.3E-01 U	5.2E-01	1.9E-01	--	ND	1.3E-02 U	6.4E-02 U	5.8E-02	1.6E+02	1.3E+01	3.5E-01	2.6E+00	5.1E-01
trans-1,2-Dichloroethene	2.4E-01 U	3.4E-01 U	1.7E-01 U	--	--	1.4E-02 U	6.8E-02 U	5.6E-02 U	--	--	--	5.6E-03 U	5.6E-03 U
trans-1,3-Dichloropropene	2.7E-01 U	3.9E-01 U	2.0E-01 U	--	--	1.6E-02 U	7.8E-02 U	6.4E-02 U	--	--	--	--	6.5E-03 U
Trichloroethene	3.8E+00	3.6E+00	1.9E+00	2.7E-02	ND	1.8E-02 U	9.2E-02 U	2.9E-01	4.4E+00	ND	ND	2.7E-02	7.2E-03 U
Trichlorofluoromethane (Freon 11)	2.1E+02	1.2E+02	9.1E+01	6.5E+00	2.9E+00	4.3E+00	9.6E-02 U	2.0E+01	ND	2.9E-01	ND	--	1.1E-01
Vinyl acetate	--	--		--	--	--	--	--	--	--	--	8.8E+00 U	1.9E-02 U
Vinyl bromide	--	--		--	--	--	--	--	--	--	--	--	2.4E-02 U
Vinyl chloride	1.5E-01 U	2.2E-01 U	1.1E-01 U	--	--	8.7E-03 U	4.4E-02 U	3.6E-02 U	--	--	--	8.7E-03 U	3.6E-03 U
Xylenes, total	--	--		--	ND	--	--	--	ND	ND	ND	--	--

Analyte / Sample Date	MW-2 10/20/2008	MW-2 4/15/2009	MW-2 11/18/2009	MW-2 10/13/2010	MW-2 4/20/2011	MW-2 10/18/2011	MW-5 5/12/2006	MW-5 11/15/2006	MW-5 4/25/2007	MW-5[4] 12/19/2007	MW-5 4/9/2008	MW-5 10/20/2008	MW-5 4/15/2009	MW-5 11/18/2009	MW-5 10/15/2010	MW-5 4/20/2011	MW-5 10/18/2011	MW-5-Dup 10/18/2011
1,1,1-Trichloroethane	6.4E-03 U	6.9E-03 U	6.4E-03 U	6.4E-03 U	6.6E-03 U	4.6E-03 U	ND	ND	ND	6.4E-03 U	1.4E-02	6.4E-03 U	6.9E-03 U	6.9E-03 U	6.5E-03 U	6.8E-03 U	4.7E-03 U	4.8E-03 U
1,1,2,2-Tetrachloroethane	8.4E-03 U	9.1E-03 U	9.1E-03 U	8.4E-03 U	8.4E-03 U	5.8E-03 U	--	--	--	3.5E-03 U	1.4E-02 U	8.4E-03 U	9.1E-03 U	9.1E-03 U	8.2E-03 U	8.5E-03 U	5.9E-03 U	6.0E-03 U
1,1,2-Trichloroethane	6.4E-03 U	6.9E-03 U	6.4E-03 U	6.4E-03 U	6.6E-03 U	4.6E-03 U	--	--	--	--	1.1E-02 U	6.4E-03 U	6.9E-03 U	6.9E-03 U	6.5E-03 U	6.8E-03 U	4.7E-03 U	4.8E-03 U
1,1,2-Trichlorotrifluoroethane (Freon 113)	9.4E-03 U	1.0E-02 U	1.0E-02 U	9.4E-03 U	3.5E-02	7.1E-03	ND	ND	4.6E-03	1.9E+01	2.2E-01	9.4E-03 U	1.5E-02	1.0E-02 U	9.2E-03 U	2.1E-02	8.5E-03	8.7E-03
1,1-Dichloroethane	4.8E-03 U	5.2E-03 U	4.8E-03 U	4.8E-03 U	4.9E-03 U	3.4E-03 U	ND	ND	ND	4.8E-03 U	8.0E-03 U	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.8E-03 U	5.0E-03 U	3.5E-03 U	3.5E-03 U
1,1-Dichloroethene	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.8E-03 U	4.8E-03 U	3.3E-03 U	ND	ND	ND	4.8E-03 U	2.3E-02	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.7E-03 U	4.9E-03 U	3.4E-03 U	3.5E-03 U
1,1-Difluoroethane	3.8E-01	1.5E-02 U	--	--	--	--	--	--	--	2.7E+01 E	2.3E-02 U	1.4E-02 U	1.5E-02 U	--	--	--	--	--
1,2,4-Trichlorobenzene	3.7E-02 U	3.8E-02 U	3.6E-02 U	3.7E-02 U	3.6E-02 U	2.5E-02 U	--	--	--	4.2E-02 U	6.0E-02 U	3.7E-02 U	3.8E-02 U	3.8E-02 UJ	3.5E-02 U	3.7E-02 U	2.6E-02 U	2.6E-02 U
1,2,4-Trimethylbenzene	6.0E-03 U	6.5E-03 U	6.5E-03 U	6.0E-03 U	6.0E-03 U	4.1E-03 U	--	--	--	--	1.0E-02 U	1.1E-02	6.5E-03 U	6.5E-03 U	5.9E-03 U	6.1E-03 U	4.2E-03 U	4.3E-03 U
1,2-Dibromoethane (EDB)	9.2E-03 U	1.0E-02 U	9.2E-03 U	9.2E-03 U	9.4E-03 U	6.4E-03 U	--	--	--	--	1.5E-02 U	9.2E-03 U	1.0E-02 U	1.0E-02 U	9.2E-03 U	9.5E-03 U	6.6E-03 U	6.7E-03 U
1,2-Dichlorobenzene	7.2E-03 U	7.8E-03 U	7.8E-03 U	7.2E-03 U	7.3E-03 U	5.0E-03 U	--	--	--	4.8E+00 U	1.2E-02 U	7.2E-03 U	7.8E-03 U	7.8E-03 U	7.2E-03 U	7.4E-03 U	5.2E-03 U	5.3E-03 U
1,2-Dichloroethane	4.9E-03 U	5.3E-03 U	4.9E-03 U	4.9E-03 U	4.9E-03 U	3.4E-03 U	ND	ND	ND	4.9E-03 U	8.2E-03 U	4.9E-03 U	5.3E-03 U	5.3E-03 U	4.8E-03 U	5.0E-03 U	3.5E-03 U	3.5E-03 U
1,2-Dichloropropane	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.6E-03 U	5.6E-03 U	3.9E-03 U	ND	ND	ND	5.6E-03 U	9.3E-03 U	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.5E-03 U	5.7E-03 U	4.0E-03 U	4.0E-03 U
1,3,5-Trimethylbenzene	6.0E-03 U	6.5E-03 U	6.0E-03 U	6.0E-03 U	6.0E-03 U	4.1E-03 U	--	--	--	--	1.0E-02 U	6.0E-03 U	6.5E-03 U	6.5E-03 U	5.9E-03 U	6.1E-03 U	4.2E-03 U	4.3E-03 U
1,3-Butadiene	2.7E-03 U	2.9E-03 U	2.9E-03 U	2.7E-03 U	2.7E-03 U	1.8E-03 U	--	--	--	--	4.5E-03 U	2.7E-03 U	2.9E-03 U	2.9E-03 U	2.6E-03 U	2.7E-03 U	1.9E-03 U	1.9E-03 U
1,3-Dichlorobenzene	7.2E-03 U	7.8E-03 U	7.2E-03 U	7.2E-03 U	7.3E-03 U	5.0E-03 U	--	--	--	--	1.2E-02 U	7.2E-03 U	7.8E-03 U	7.8E-03 U	7.2E-03 U	7.4E-03 U	5.2E-03 U	5.3E-03 U
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	2.2E-02 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	7.2E-03 U	7.8E-03 U	7.8E-03 U	7.2E-03 U	7.3E-03 U	5.0E-03 U	--	--	--		1.2E-02 U	7.2E-03 U	7.8E-03 U	7.8E-03 U	7.2E-03 U	7.4E-03 U	5.2E-03 U	5.3E-03 U
1,4-Dioxane	1.8E-02 U	1.9E-02 U	1.8E-02 U	1.8E-02 U	1.8E-02 U	1.2E-02 U	--	--	--	3.6E+00 U	2.9E-02 U	1.8E-02 U	1.9E-02 U	1.9E-02 U	1.7E-02 U	1.8E-02 U	1.2E-02 U	1.3E-02 U
2,2,4-Trimethylpentane	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.6E-03 U	5.7E-03 U	3.9E-03 U	--	--	--	1.0E-02	1.0E-02	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.6E-03 U	5.8E-03 U	4.0E-03 U	4.1E-03 U
2,3-Dimethylbutane	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	2.1E-02	3.9E-03 U	3.6E-03 U	4.2E-03	1.4E-02 U	9.9E-03 U	ND	ND	ND	8.0E-03	9.2E-03	6.5E-03	5.0E-03	4.2E-03	3.9E-03	1.5E-02 U	1.0E-02 U	1.0E-02 U
2-Hexanone	2.0E-02 U	2.1E-02 U	2.2E-02 U	2.0E-02 U	2.0E-02 U	1.4E-02 U	--	--	--	2.0E-02 U	3.3E-02 U	2.0E-02 U	2.1E-02 U	2.1E-02 U	2.0E-02 U	2.0E-02 U	1.4E-02 U	1.4E-02 U
2-Methylpentane	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
2-Propanol	1.2E-02 U	1.3E-02 U	1.2E-02 U	1.2E-02 U	1.2E-02 U	8.2E-03 U	--	--	--	--	2.0E-02 U	1.2E-02 U	1.3E-02 U	1.3E-02 U	1.4E-02	1.2E-02 U	8.5E-03 U	8.6E-03 U
3-Chloropropene	1.6E-02 U	1.6E-02 U	1.7E-02 U	1.6E-02 U	1.5E-02 U	1.0E-02 U	--	--	--	--	2.5E-02 U	1.6E-02 U	1.6E-02 U	1.6E-02 U	1.5E-02 U	1.6E-02 U	1.1E-02 U	1.1E-02 U
3-Methylpentane	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
4-Ethyltoluene	6.0E-03 U	6.5E-03 U	6.0E-03 U	6.0E-03 U	6.0E-03 U	4.1E-03 U	--	--	--	3.8E-03 U	1.0E-02 U	1.3E-02	6.5E-03 U	6.5E-03 U	5.9E-03 U	6.1E-03 U	4.2E-03 U	4.3E-03 U
4-Methyl-2-pentanone (MIBK)	3.6E-02	5.2E-03 U	5.2E-03 U	4.8E-03 U	5.0E-03 U	3.4E-03 U	--	--	--	4.8E-03 U	8.0E-03 U	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.9E-03 U	5.1E-03 U	3.5E-03 U	3.6E-03 U
Acetone	4.4E-02	1.4E-02	2.0E-01	3.9E-02	5.1E-02	4.3E-02	ND	ND	4.8E-02	3.4E-02	3.4E-02	3.6E-02	5.6E-02	2.0E-02	3.9E-02	3.1E-02	4.3E-02	4.3E-02
alpha-Chlorotoluene	6.4E-03 U	6.9E-03 U	6.9E-03 U	6.4E-03 U	6.3E-03 U	4.3E-03 U	--	--	--	--	1.1E-02 U	6.4E-03 U	6.9E-03 U	6.9E-03 U	6.2E-03 U	6.4E-03 U	4.5E-03 U	4.5E-03 U
Benzene	3.9E-03 U	4.2E-03 U	3.9E-03 U	3.9E-03 U	3.9E-03 U	2.7E-03 U	ND	ND	8.4E-03	1.1E-02	6.5E-03 U	2.1E-02	4.2E-03 U	4.2E-03 U	3.8E-03 U	5.4E-03	5.4E-03	5.4E-03
Bromodichloromethane	8.0E-03 U	8.7E-03 U	8.7E-03 U	8.0E-03 U	8.2E-03 U	5.6E-03 U	--	--	--	8.0E-03 U	1.3E-02 U	8.0E-03 U	8.7E-03 U	8.7E-03 U	8.0E-03 U	8.3E-03 U	5.8E-03 U	5.9E-03 U
Bromoform	1.2E-02 U	1.3E-02 U	1.2E-02 U	1.2E-02 U	1.3E-02 U	8.7E-03 U	--	--	--	1.2E-02 U	2.1E-02 U	1.2E-02 U	1.3E-02 U	1.3E-02 U	1.2E-02 U	1.3E-02 U	8.9E-03 U	9.0E-03 U
Bromomethane	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.8E-03 U	4.7E-03 U	3.3E-03 U	--	--	--	4.8E-03 U	8.0E-03 U	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.6E-03 U	4.8E-03 U	3.4E-03 U	3.4E-03 U
Carbon disulfide	4.4E-03	4.1E-03 U	3.8E-03 U	3.8E-03 U	1.5E-02 U	1.0E-02	--	ND	4.1E-03	4.1E-03	6.3E-03 U	7.8E-03	1.0E-02	4.1E-03 U	3.7E-03 U	1.5E-02 U	1.4E-02	1.4E-02
Carbon tetrachloride	7.4E-03 U	1.9E-02	8.1E-03 U	7.4E-03 U	3.0E-02 J	1.0E-02 J	ND	ND	ND	7.4E-03 U	9.9E-02	7.4E-03 U	8.1E-03 U	8.1E-03 U	7.5E-03 U	7.8E-03 U	5.4E-03 U	5.5E-03 U
Chlorobenzene	5.6E-03 U	6.1E-03 U	5.6E-03 U	5.6E-03 U	5.6E-03 U	3.9E-03 U	--	--	--	5.6E-03 U	9.3E-03 U	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.5E-03 U	5.7E-03 U	4.0E-03 U	4.0E-03 U
Chloroethane	3.5E-03	3.5E-03 U	3.5E-03 U	3.2E-03 U	1.3E-02 U	8.9E-03 U	--	--	--	3.2E-03 U	5.3E-03 U	3.2E-03 U	3.5E-03 U	3.5E-03 U	3.2E-03 U	1.3E-02 U	9.1E-03 U	9.2E-03 U
Chloroform	9.9E-03	6.1E-03 U	5.7E-03 U	5.7E-03 U	6.0E-03 U	4.1E-03 U	ND	9.9E-01	4.0E-03	8.5E+02	1.1E+00	5.7E-03 U	6.1E-03 U	6.1E-03 U	5.8E-03 U	6.0E-03 U	4.2E-03 U	4.3E-03 U
Chloromethane	1.0E-02 U	1.1E-02 U	1.1E-02 U	1.0E-02 U	1.0E-02 U	6.9E-03 U	--	--	--	--	1.7E-02 U	1.0E-02 U	1.1E-02 U	1.1E-02 U	9.9E-03 U	1.0E-02 U	7.1E-03 U	7.2E-03 U
cis-1,2-Dichloroethene	4.8E-03 U	5.2E-03 U	4.8E-03 U	4.8E-03 U	4.8E-03 U	3.3E-03 U	--	--	--	4.8E-03 U	8.0E-03	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.7E-03 U	4.9E-03 U	3.4E-03 U	3.5E-03 U
cis-1,3-Dichloropropene	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.6E-03 U	5.5E-03 U	3.8E-03 U	--	--	--	1.2E+00 U	9.3E-03 U	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.4E-03 U	5.6E-03 U	3.9E-03 U	4.0E-03 U
Cyclohexane	4.0E-03 U	4.3E-03 U	4.0E-03 U	4.0E-03 U	4.2E-03 U	2.9E-03 U	ND	ND	4.0E-02	--	1.6E-02	4.0E-03 U	4.3E-03 U	4.3E-03 U	4.1E-03 U	4.3E-03 U	3.0E-03 U	3.0E-03 U
Cyclohexanone	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
Cyclopentane	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	1.0E-02 U	1.1E-02 U	1.1E-02 U	1.0E-02 U	1.0E-02 U	7.2E-03 U	--	--	--	1.0E-02 U	1.7E-02 U	1.0E-02 U	1.1E-02 U	1.1E-02 U	1.0E-02 U	1.0E-02 U	7.4E-03 U	7.4E-03 U
Dichlorodifluoromethane (Freon 12)	5.9E-03 U	4.5E-02	1.1E-02	5.9E-03 U	1.1E-01	1.4E-02	ND	ND	ND	3.4E+00	1.4E-01	5.9E-03 U	6.4E-03 U	6.4E-03 U	5.9E-03 U	1.3E-02	4.7E-03	5.4E-03
Dichlorotetrafluoroethane (Freon 114)	8.4E-03 U	9.1E-03 U	9.1E-03 U	8.4E-03 U	8.5E-03 U	5.9E-03 U	--	--	--	--	1.4E-02 U	8.4E-03 U	9.1E-03 U	9.1E-03 U	8.4E-03 U	8.7E-03 U	6.0E-03 U	6.1E-03 U
Ethanol	9.4E-03 U	9.8E-03 U	9.2E-03 U	2.1E-02	1.6E-02	9.6E-03	--	--	--	--	1.5E-02 U	9.4E-03 U	9.8E-03 U	9.8E-03 U	1.8E-02 J	9.3E-03 J	1.8E-02	1.5E-02
Ethyl acetate	1.8E-02 U	1.8E-02 U	--	--	--	--	--	ND	6.5E-02	--	2.9E-02 U	1.8E-02 U	1.8E-02 U	--	--	--	--	--
Ethylbenzene	5.2E-03 U	5.6E-03 U	5.6E-03 U	5.2E-03 U	6.9E-03	3.6E-03 U	ND	ND	2.6E-03	5.2E-03 U	8.7E-03 U	1.5E-02	1.0E-02	5.6E-03 U	5.2E-03 U	5.4E-03 U	3.8E-03 U	3.8E-03 U
Heptane	2.0E-02	5.2E-03 U	4.8E-03 U	4.8E-03 U	5.0E-03 U	3.4E-03 U	1.8E+01	2.3E-01	2.9E-02	--	8.0E-03 U	5.2E-03	5.2E-03 U	5.2E-03 U	4.9E-03	5.1E-03 U	3.5E-03 U	3.6E-03 U
Hexachlorobutadiene	5.3E-02 U	5.5E-02 U	5.7E-02 U	5.3E-02 U	5.2E-02 U	3.6E-02 U	--	--	--	--	8.7E-02 U	5.3E-02 U	5.5E-02 U	5.5E-02 U	5.1E-02 U	5.3E-02 U	3.7E-02 U	3.7E-02 U
Hexane	4.4E-03 U	4.8E-03 U	5.1E-03	4.4E-03 U	4.3E-03 U	3.0E-03 U	ND	3.7E-01	ND	1.9E+00 U	1.4E-02	4.4E-03 U	4.8E-03 U	4.8E-03 U	6.9E-03	4.4E-03 U	3.0E-03 U	3.1E-03 U
Isobutane	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
Isopentane (2-methylbutane)	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	6.0E-03 U	6.5E-03 U	6.5E-03 U	6.0E-03 U	6.0E-03 U	4.1E-03 U	--	--	--	--	1.0E-02 U	3.1E-02	6.5E-03 U	6.5E-03 U	5.9E-03 U	6.1E-03 U	4.2E-03 U	4.3E-03 U
m,p-Xylene	5.2E-03 U	7.8E-03	5.2E-03 U	5.2E-03 U	3.4E-02	5.0E-03	--	--	--	5.2E-03 U	8.7E-03 U	2.1E-02	3.2E-02	5.6E-03 U	5.2E-03 U	1.4E-02	5.3E-03	4.9E-03
Methyl tert-butyl ether	4.4E-03 U	4.8E-03 U	4.8E-03 U	4.4E-03 U	4.4E-03 U	3.0E-03 U	--	--	--	1.8E-03 U	7.3E-03 U	4.4E-03 U	4.8E-03 U	4.8E-03 U	4.3E-03 U	4.5E-03 U	3.1E-03 U	3.2E-03 U
Methylene chloride	4.2E-03 U	4.5E-03 U	8.7E-03	4.2E-02	4.2E-03 U	3.6E-03	ND	ND	9.7E-03	4.2E-03 U	1.2E-02	4.2E-03 U	4.5E-03 U	4.5E-03 U	6.4E-03	4.3E-03 U	3.2E-03	3.7E-03
n-Propylbenzene	6.0E-03 U	6.5E-03 U	6.5E-03 U	6.0E-03 U	6.0E-03 U	4.1E-03 U	--	--	--	1.3E-01 U	1.0E-02 U	6.0E-03 U	6.5E-03 U	6.5E-03 U	5.9E-03 U	6.1E-03 U	4.2E-03 U	4.3E-03 U
o-Xylene	5.2E-03 U	5.6E-03 U	5.2E-03 U	5.2E-03 U	8.3E-03	3.6E-03 U	--	--	--	5.2E-03 U	8.7E-03 U	1.0E-02	6.1E-03	5.6E-03 U	5.2E-03 U	5.4E-03 U	3.8E-03 U	3.8E-03 U
Propene	8.4E-03 U	9.3E-03	--	--	--	--	ND	ND	3.3E-03	--	2.4E-02	8.4E-03 U	9.8E-03	--	--	--	--	--
Styrene	5.2E-03 U	5.6E-03 U	5.6E-03 U	5.2E-03 U	5.2E-03 U	3.6E-03 U	ND	ND	6.1E-03	2.2E-03 U	8.7E-03 U	5.2E-03 U	5.6E-03 U	5.6E-03 U	5.1E-03 U	5.3E-03 U	3.7E-03 U	3.7E-03 U
Sulfur Dioxide	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	8.2E-03 U	8.9E-03 U	8.2E-03 U	8.2E-03 U	8.3E-03 U	5.7E-03 U	ND	ND	8.2E-03	8.2E-03 U	1.6E-02	8.2E-03 U	8.9E-03 U	8.9E-03 U	8.1E-03 U	8.4E-03 U	5.9E-03 U	5.9E-03 U
Tetrahydrofuran	4.5E-03	3.9E-03 U	3.9E-03 U	3.6E-03 U	3.6E-03 U	2.5E-03 U	5.9E+00	ND	ND	--	5.9E-03 U	3.6E-03 U	3.9E-03 U	3.9E-03 U	3.5E-03 U	3.6E-03 U	2.6E-03 U	2.6E-03 U
Toluene	1.6E-01	1.8E-02	7.7E-03	5.5E-03	4.6E-03 U	3.2E-03 U	1.2E+02	1.4E+01	1.5E-01	1.2E-01	4.4E-02	1.5E-01	1.3E-02	4.8E-03 U	1.8E-02	9.4E-03	2.0E-02	2.0E-02
trans-1,2-Dichloroethene	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.8E-03 U	4.8E-03 U	3.3E-03 U	--	--	--	4.8E-03 U	8.0E-03 U	4.8E-03 U	5.2E-03 U	5.2E-03 U	4.7E-03 U	4.9E-03 U	3.4E-03 U	3.5E-03 U
trans-1,3-Dichloropropene	5.6E-03 U	6.1E-03 U	5.6E-03 U	5.6E-03 U	5.5E-03 U	3.8E-03 U	--	--	--	--	9.3E-03 U	5.6E-03 U	6.1E-03 U	6.1E-03 U	5.4E-03 U	5.6E-03 U	3.9E-03 U	4.0E-03 U
Trichloroethene	6.2E-03 U	6.7E-03 U	6.7E-03 U	7.2E-03	6.6E-03 U	4.5E-03 U	9.8E+00	ND	ND	6.2E-03 U	6.2E-02	6.2E-03 U	6.7E-03 U	6.7E-03 U	6.4E-03 U	6.7E-03 U	4.6E-03 U	4.7E-03 U
Trichlorofluoromethane (Freon 11)	6.9E-03 U	2.9E-01	8.0E-02	2.1E-02	2.0E+00	3.4E-01	ND	4.0E-01	1.1E-01	--	4.4E+00	1.1E-02	4.9E-01	7.4E-03 U	4.3E-02	1.2E+00	3.8E-01	4.0E-01
Vinyl acetate	1.7E-02 U	1.8E-02 U	--	--	--	--	--	--	--	7.4E+00 U	2.8E-02 U	1.7E-02 U	1.8E-02 U	--	--	--	--	--
Vinyl bromide	2.1E-02 U	2.2E-02 U	--	--	--	--	--	--	--		3.5E-02 U	2.1E-02 U	2.2E-02 U	--	--	--	--	--
Vinyl chloride	5.6E-03	3.3E-03 U	3.3E-03 U	3.1E-03 U	3.1E-03 U	2.1E-03 U	--	--	--	3.1E-03 U	6.9E-03	3.1E-03 U	3.3E-03 U	3.3E-03 U	3.0E-03 U	3.2E-03 U	2.2E-03 U	2.2E-03 U
Xylenes, total	--	--	--	--	--	--	ND	ND	2.1E-02	--	--	--	--	--	--	--	--	--

Notes
1. Data qualifiers are as follows:
   -- = no data available.
   ND = not detected; no numerical value available for detection limit or reporting limit.
   U = analyte not detected at reporting limit indicated.
   UJ = analyte not detected at reporting limit indicated; reporting limit is estimated.
   J = reported result is the estimated concentration.
   E = concentration exceeds the calibration range of the instrument; reported results should be considered an estimate.
2. Volatile organic compounds (VOCs) analyzed by EPA Method TO-15.
3. Dup = field duplicate sample.
4. Leak detection compound detected in samples collected from SGS-SP, MW-2, and MW-5 on 12/19/2007.

Abbreviations
EDB = ethylene dibromide
EPA = US Environmental Protection Agency
MEK = methyl ethyl ketone
MIBK = methyl isobutyl ketone

APPENDIX G-4

ALERT LEVEL GUIDANCE

APPENDIX G-4 (Application APPENDIX R)

ADEQ 1995 ALERT LEVEL GUIDANCE FOR SOLID WASTE FACILITIES

Arizona Department of Environmental Quality
Waste Programs Division
Solid Waste Section

ALERT LEVEL GUIDANCE FOR SOLID WASTE FACILITIES - 1995

This document describes one methodology for establishing Alert Levels (ALs) and determining statistically significant increases of constituents in groundwater at Municipal Solid Waste Landfills (MSWLs). MSWLs are required to comply with the groundwater monitoring requirements of 40 CFR 258, Subpart E. The following diagrams and charts are presented to clarify the tolerance interval method discussed in *Technical Guidance Document I* (ADEQ, 1993). *TGD I* and this document were adapted in part from the following EPA guidance documents:

- *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance,* Environmental Protection Agency, Office of Solid Waste, Waste Management Division, April 1989
- *Addendum to Interim Final Guidance*, EPA, 1992.

The tolerance interval method is one of several statistical methods described in § 258.53. For each constituent, a numeric value is calculated from background data and compared with future detection monitoring data. Following establishment of these values, a detection data set does not have to be put through a variety of statistical tests in order to prove or disprove a statistically significant increase because the background data has already been transformed into a tolerant, albeit, protective limit. However, this method is only effective for data that is of normal or log normal distribution and does not display significant spatial variation between background and compliance wells.

Background to compliance, or **interwell comparison**, assumes that the two sets of data are from nearly identical water. This would imply that all water has had the same time of infiltration, and same period of contact and chemical reactions with saturated zone sediments. This situation is rare, if not impossible. However, it is the assumption necessary for such comparison. **Intrawell comparison**, has an advantage over interwell comparison. Data from a well is compared with historical data from the same well, thus eliminating spatial variations from one well to another. However, intrawell comparison may be ineffective at sites where the background data may already indicate contamination. The choice between interwell and intrawell comparison is best made after a thorough evaluation of background and compliance well data.

When enough background data is available, tolerance intervals can be calculated. EPA guidance recommends a sample size of eight or more. The mean and standard deviation of the data are calculated to allow for the natural variance of water quality data. Add together the mean, and the product of the

standard deviation and a tolerance factor, to get the upper tolerance limit. The method limits the probability of false positives and false negatives (type I and type II errors). In addition, methods are available to handle data that may have non-detections and outliers.

For each constituent, the upper tolerance limit is an AL or AQL and is dependent upon the existence of an MCL or AWQS for that constituent. Subsequent detection monitoring data is compared to the upper tolerance limit established from the background data. If an exceedence of an upper tolerance limit occurs, and is not refuted by § 258.54(c)(3), the owner/operator is required to initiate Assessment Monitoring in accordance with § 258.55.

Acronyms and Abbreviations

AL - Alert Level: an early warning indicator of a potential violation of an Aquifer Water Quality Standard at the applicable point of compliance.

AQL - Aquifer Quality Limit: a maximum concentration of a constituent allowed in an aquifer at the point of compliance. Synonymous with AWQS.

AWQS - Aquifer Water Quality Standards: numeric water quality standards established by Arizona Revised Statute 49-223 and published in Arizona Administrative Code Title 18, Chapter 11, Article 4 (R18-11-406).

MCL - Maximum Contaminant Level: the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

MDL - Method Detection Limit: the minimum concentration of a constituent that can be measured and reported with a 99 percent confidence that the true value is greater than zero in a given matrix containing the analyte.

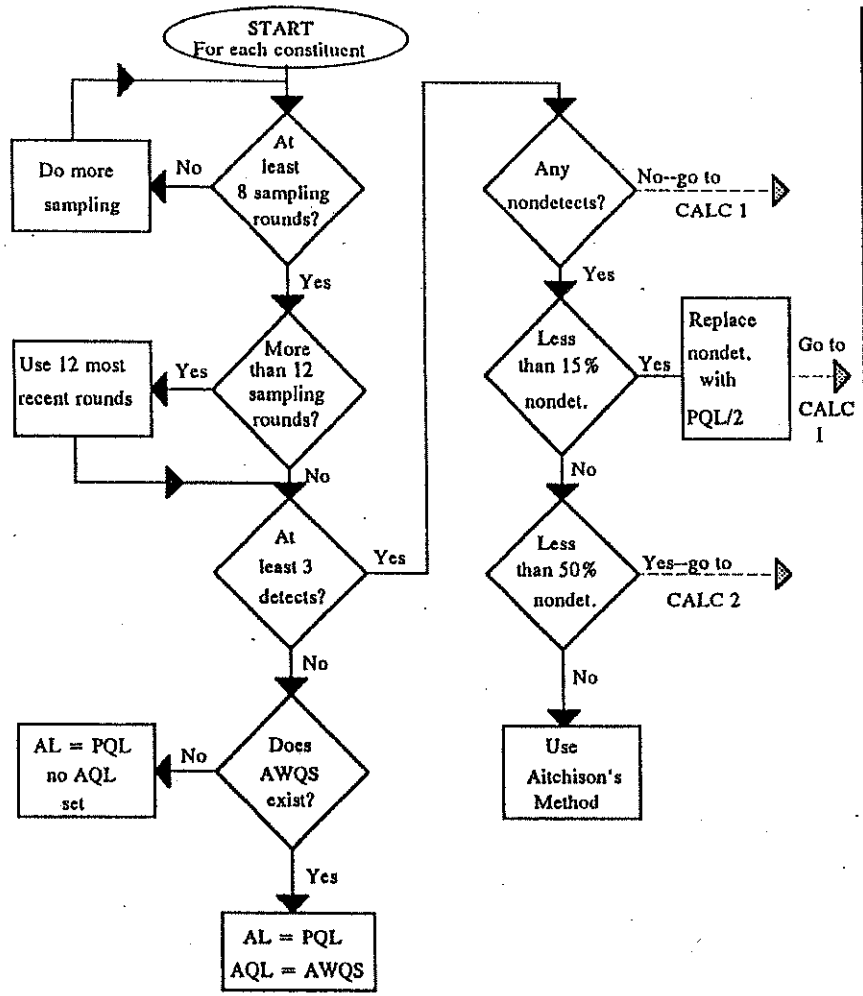
PQL - Practical Quantitation Limit: the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Type I Error - False Positive: incorrectly indicates contamination or an increase in contamination.

Type II Error - False Negative: when a test fails to detect contamination or an increase in a concentration of a constituent.

Note: **This is a recommended method, and may not be applicable, nor appropriate for some facilities. MSWL units located over aquifers with man made impacts or aquifers that exhibit naturally occurring, significant chemical variations, should pursue other statistical methods or consult a professional statistician.**

Alert Level Guidance



AL CALC 1

$AL = \bar{x} + Ks$

$\bar{x} = \text{Mean} = \dfrac{\sum_{i=1}^{n} x_i}{n}$

K = Tolerance factor from table 1

$s = \text{std. dev.} = \sqrt{\dfrac{\sum_{i=1}^{n} (x_i - \bar{x})^2 \, n_i}{(n-1)}}$

n = total number of quantifiable samples

PQL/2 are quantifiable samples

Basic Tolerance Interval Method

AL CALC 2

$AL = \bar{x}_{corr} + Ks_{corr}$

x = Mean = as in CALC 1

K = tolerance factor from table 1

s = std. dev. = as in CALC 1

n = total number of quantifiable samples

m = total number of samples

m-n = total number of nondetects

h = (m - n)/m = corr. factor 1

$g = s^2 / (\bar{x} - PQL)^2$ = corr. factor 2

obtain c from table 3, using h and g

$\bar{x}_{corr} = \bar{x} - c(\bar{x} - PQL)$

$s_{corr} = \sqrt{(s^2 + c(\bar{x} - PQL)^2)}$

Cohen's Method

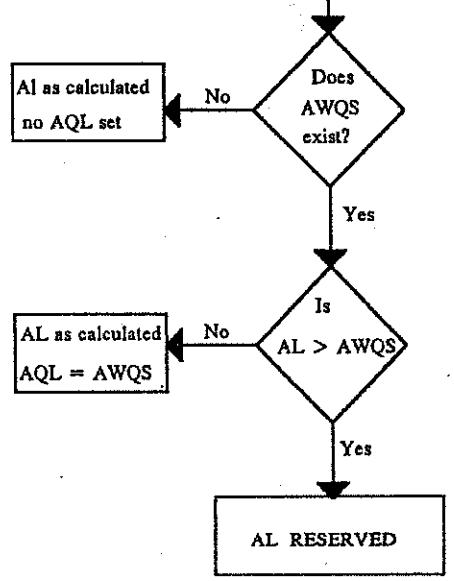


Table 1: Tolerance Factors (K) for Tolerance Intervals with 95% Confidence.

n	K
8	3.188
9	3.031
10	2.911
11	2.815
12	2.736

Table 2: Critical Values for T (One Sided)

n	T
3	1.155
4	1.496
5	1.764
6	1.973
7	2.139
8	2.274
9	2.387
10	2.482
11	2.564
12	2.636

Outlier Determination

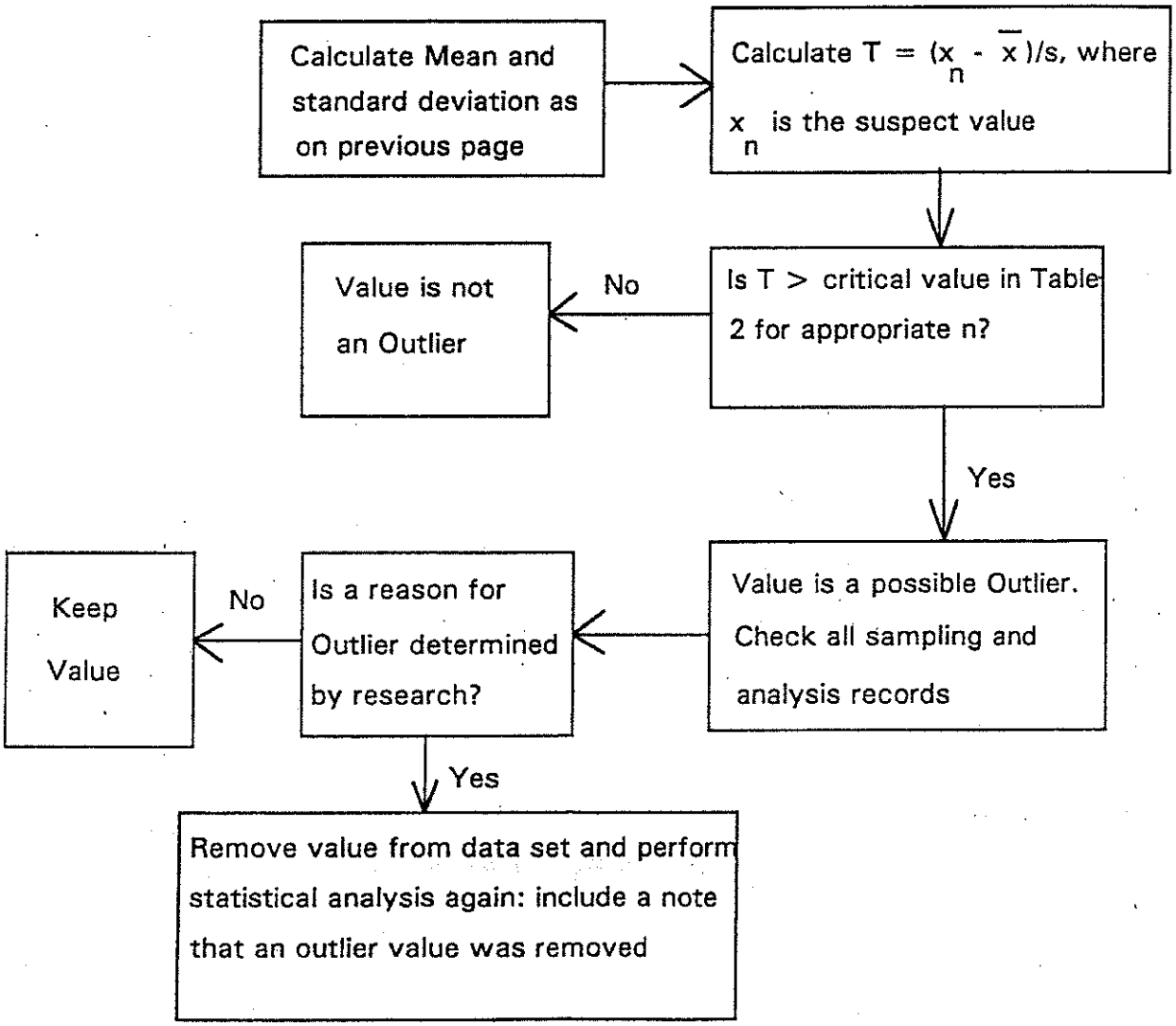


Table 3: Correction for Non-detects

g\h	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1	0.15	0.2	h/g
0	0.0101	0.0204	0.030902	0.041583	0.052507	0.063627	0.074953	0.086488	0.09824	0.1102	0.17342	0.24268	0
0.05	0.010551	0.021294	0.032225	0.04335	0.05467	0.066189	0.077909	0.089834	0.10197	0.11431	0.17935	0.25033	0.05
0.1	0.01095	0.022082	0.033398	0.044902	0.056596	0.068483	0.080568	0.092852	0.10534	0.11804	0.18479	0.25741	0.1
0.15	0.01131	0.022798	0.034466	0.046318	0.058356	0.070586	0.083009	0.095629	0.10845	0.12148	0.18985	0.26405	0.15
0.2	0.011642	0.023459	0.035453	0.047629	0.05999	0.072539	0.08528	0.098216	0.11135	0.12469	0.1946	0.27031	0.2
0.25	0.011952	0.024076	0.036377	0.048858	0.061522	0.074372	0.087413	0.10065	0.11408	0.12772	0.1991	0.27626	0.25
0.3	0.012243	0.024658	0.037249	0.050018	0.062969	0.076106	0.089433	0.10295	0.11667	0.13059	0.20338	0.28193	0.3
0.35	0.01252	0.025211	0.038077	0.05112	0.064345	0.077756	0.091355	0.10515	0.11914	0.13333	0.20747	0.28737	0.35
0.4	0.012784	0.025738	0.038866	0.052173	0.06566	0.079332	0.093193	0.10725	0.1215	0.13595	0.21139	0.2926	0.4
0.45	0.013036	0.026243	0.039624	0.053182	0.066921	0.080845	0.094958	0.10926	0.12377	0.13847	0.21517	0.29765	0.45
0.5	0.013279	0.026728	0.040352	0.054153	0.068135	0.082301	0.096657	0.11121	0.12595	0.1409	0.21882	0.30253	0.5
0.55	0.013513	0.027196	0.041054	0.055089	0.069306	0.083708	0.098298	0.11308	0.12806	0.14325	0.22235	0.30725	0.55
0.6	0.013739	0.027649	0.041733	0.055995	0.070439	0.085068	0.099887	0.1149	0.13011	0.14552	0.22578	0.31184	0.6
0.65	0.013958	0.028087	0.042391	0.056874	0.071538	0.086388	0.10143	0.11666	0.13209	0.14773	0.2291	0.3163	0.65
0.7	0.014171	0.028513	0.04303	0.057726	0.072605	0.08767	0.10292	0.11837	0.13402	0.14987	0.23234	0.32065	0.7
0.75	0.014378	0.028927	0.043652	0.058556	0.073643	0.088917	0.10438	0.12004	0.1359	0.15196	0.2355	0.32489	0.75
0.8	0.014579	0.02933	0.044258	0.059364	0.074655	0.090133	0.1058	0.12617	0.13773	0.154	0.23858	0.32903	0.8
0.85	0.014775	0.029723	0.044848	0.060153	0.075642	0.091319	0.10719	0.12325	0.136952	0.15599	0.24158	0.33307	0.85
0.9	0.014967	0.030107	0.045425	0.060923	0.076606	0.092477	0.10854	0.1248	0.14126	0.15793	0.24452	0.33703	0.9
0.95	0.015154	0.030483	0.045989	0.061676	0.077549	0.093611	0.10987	0.12362	0.14297	0.15983	0.2474	0.34091	0.95
1	0.015338	0.03085	0.04654	0.062413	0.078471	0.09472	0.11116	0.1278	0.14465	0.1617	0.25022	0.34471	1

g\h	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.65	0.7	0.8	0.9	h/g
0	0.31862	0.4021	0.4941	0.5961	0.7096	0.8368	0.9808	1.145	1.336	1.561	2.176	3.283	0
0.05	0.32793	0.413	0.5066	0.6101	0.7252	0.854	0.9994	1.166	1.358	1.585	2.203	3.314	0.05
0.1	0.33662	0.4233	0.5184	0.6234	0.74	0.8703	1.017	1.185	1.379	1.608	2.229	3.345	0.1
0.15	0.3448	0.433	0.5296	0.6361	0.7542	0.886	1.035	1.204	1.4	1.63	2.255	3.376	0.15
0.2	0.35255	0.4422	0.5403	0.6483	0.7678	0.9012	1.051	1.222	1.419	1.651	2.28	3.405	0.2
0.25	0.35993	0.451	0.5506	0.66	0.781	0.9158	1.067	1.24	1.439	1.672	2.305	3.435	0.25
0.3	0.367	0.4595	0.5604	0.6713	0.7937	0.93	1.083	1.257	1.457	1.693	2.329	3.464	0.3
0.35	0.37379	0.4676	0.5699	0.6821	0.806	0.9437	1.098	1.274	1.476	1.713	2.353	3.492	0.35
0.4	0.38033	0.4755	0.5791	0.6927	0.8179	0.957	1.113	1.29	1.494	1.732	2.376	3.52	0.4
0.45	0.38665	0.4831	0.588	0.7029	0.8295	0.97	1.127	1.306	1.511	1.751	2.399	3.547	0.45
0.5	0.39276	0.4904	0.5967	0.7129	0.8408	0.9826	1.141	1.321	1.528	1.77	2.421	3.575	0.5
0.55	0.3987	0.4976	0.6051	0.7225	0.8517	0.995	1.155	1.337	1.545	1.788	2.443	3.601	0.55
0.6	0.40447	0.5045	0.6133	0.732	0.8625	1.007	1.169	1.351	1.561	1.806	2.465	3.628	0.6
0.65	0.41008	0.5114	0.6213	0.7412	0.8729	1.019	1.182	1.366	1.577	1.824	2.486	3.654	0.65
0.7	0.41555	0.518	0.6291	0.7502	0.8832	1.03	1.195	1.38	1.593	1.841	2.507	3.679	0.7
0.75	0.4209	0.5245	0.6397	0.759	0.8932	1.042	1.207	1.394	1.608	1.858	2.528	3.705	0.75
0.8	0.42612	0.5308	0.6441	0.7676	0.9031	1.053	1.22	1.408	1.624	1.875	2.548	3.73	0.8
0.85	0.43122	0.537	0.6515	0.7761	0.9127	1.064	1.232	1.422	1.639	1.892	2.568	3.754	0.85
0.9	0.43622	0.543	0.6586	0.7844	0.9222	1.074	1.244	1.435	1.653	1.908	2.588	3.779	0.9
0.95	0.44112	0.549	0.6656	0.7925	0.9314	1.085	1.255	1.448	1.668	1.924	2.607	3.803	0.95
1	0.44592	0.5548	0.6724	0.8005	0.9406	1.095	1.267	1.461	1.682	1.94	2.626	3.827	1

April 27, 2012
Revision Draft

APPENDIX G-5

INVENTORY OF TYPICAL WASTE MATERIALS LANDFILLED

APPENDIX G-5 (Application APPENDIX C)

INVENTORY OF TYPICAL WASTE MATERIALS LANDFILLED

UNIVERSITY OF ARIZONA
PAGE TROWBRIDGE RANCH LANDFILL
INVENTORY OF BURIED WASTE CHEMICALS

Chemical Waste	Primary Waste Characteristic(s)	EPA Waste Code
Waste 1,2-Dimethoxypropane	Ignitable	D001
Waste 1, 3-Dichloropropanol-2 (DichloroisopropanolJ	Ignitable	D001
Waste 1,8-Epoxy p-Methane	Ignitable	D001
Waste I-Pentene (Propylethylene)	Ignitable	D001
Waste I-Pentyne(n-Propyl Acetylene)	Ignitable	D001
Waste 2,2,4-Trimethylpentane (Isooctane)	Ignitable	D001
Waste 2,4,7-Trinitrofluoren-9-one	Toxic	T
Waste 2-Amino-2-Ethyl-l,3-Propanediol	Ignitable	D001
Waste 2-Amino-2-Methyl-l,3-Propandiol	Ignitable	D001
Waste 2-Amino-2-Methyl-l-Propanol	Ignitable	D001
Waste 2-Amino-4,6-Dihydroxy pyrinidine	Toxic	T
Waste 2-Aminoethanethiol-HCl	Ignitable	D001
Waste 2-Butyloxy-Aethanol	Ignitable	D001
Waste 2-Chloro-4-Nitrobenzoic Acid	Corrosive	D002
Waste 2-Chloromethyl-4-Nitroanisole	Ignitable	D001
Waste 2-Dimethylaminoethyl Phosphonic Acid	Corrosive	D002
Waste 2-Ethoxyethanol	Ignitable	D001
Waste 2-Hydroxyethyl Methacrylate	Ignitable	D001
Waste 2-Propanol	Ignitable	D001
Waste 2-Trimethylaminoethyl Phosponic Acid	Corrosive	D002
Waste 3,5-Dinitrobenzoyl Chloride	Corrosive	D002
Waste Acarol 2E	Toxic	T
Waste Acetaldehyde	Ignitable	U001
Waste Acetamide	Toxic	T
Waste Acetic Acid	Corrosive	D002
Waste Acetic Acid (80%)	Corrosive	D002
Waste Acetic Acid/Acetone	Ignitable/Corrosive	D001/D002
Waste Acetic Acid/Alcohols	Ignitable/Corrosive	D001/D002
Waste Acetic Acid/Colchicine/MEOH	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/ETOH/MEOH	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/Ethidilene	Corrosive	D002
Waste Acetic Acid/Formic Acid/HCl	Corrosive	D002
Waste Acetic Acid/Guanidine/Acrylamide/MEOH	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/Hexane/Alcohols	Ignitable/Corrosive	D001/D002
Waste Acetic Acid/Isopropanol	Ignitable/Corrosive	D001/D002
Waste Acetic Acid/Isopropanol/Methanol/Comasie Blue/TCA	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/KCL/MEOH	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/KCL/MEOH/Colcemid	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/MEOH/Acrylamide/Chloroform	Ignitable/Corrosive	D001/D002/D022/F003
Waste Acetic Acid/MEOH/Cell Media	Ignitable/Corrosive	D001/D002/F003

BURIED WASTES MAY BE PRESENT IN BURIAL CELL AREAS A OR B
LETTER WASTE CODES INDICATE WASTE ITEM IS DEEMED HAZARDOUS BASED ON CHARACTERISTIC ONLY
C = CORROSIVE, I = IGNITABLE, R = REACTIVE, T = TOXIC

Waste Acetic Acid/MEOH/ETOH	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/Methanol	Ignitable/Corrosive	D001.D002/F003
Waste Acetic Acid/Methanol/Acetone/Formalin	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/Methanol/Methotrexate	Ignitable/Corrosive	D001/D002/F003
Waste Acetic Acid/Phenol	Corrosive	D002
Waste Acetic Anhydride	Corrosive	D002
Waste Acetone	Ignitable	D001
Waste Acetone/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Acetone/Acetic Anhydride/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Acetone/Alcohols/DMF/Hexane	Ignitable	D001
Waste Acetone/Chloroform	Ignitable	D001/D022
Waste Acetone/ChloroformlWater	Ignitable	D001/D022
Waste Acetone/ETOH/Methylene Chloride/Dioxane	Ignitable	D001/F002
Waste Acetone/Ethanol	Ignitable	D001
Waste Acetone/Ether/ETOH/TCA	Ignitable	D001
Waste Acetone/Ethyl Acetate/Acetonitrile	Ignitable	D001/F003
Waste Acetone/Ethyl Ether/Chloroform	Ignitable	D001/D022
Waste Acetone/Formic Acid	Ignitable/Corrosive	D001/D002
Waste Acetone/MEOH/Chloroform	Ignitable	D001/D022/F003
Waste Acetone/Methylene Chloride	Ignitable	D001/F002
Waste Acetone/Oil	Ignitable	D001
Waste Acetone/Osmium Tetraoxide/Glutaraldehyde	Ignitable	D001
Waste Acetone/Pyridine	Ignitable	D001/F005
Waste Acetone/Sodium Iodide	Ignitable	D001
Waste Acetone/Toluene/Xylene	Ignitable	D001/F005
Waste Acetone/Water	Ignitable	D001
Waste Acetonitrile	Ignitable	D001
Waste Acetonitrile (25-50%)	Ignitable	D001
Waste Acetonitrile/Acetic Acid/Ammonium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Acetonitrile/Acetic Acid/Ammonium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Acetonitrile/Acrylamide	Ignitable	D001
Waste Acetonitrile/Ammonium Acetate	Ignitable	D001
Waste Acetonitrile/Ammonium Acetate/Ethyl Acetate	Ignitable	D001/F003
Waste Acetonitrile/Ammonium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Acetonitrile/Ammonium Hydroxide/Acetone	Ignitable/Corrosive	D001/D002
Waste Acetonitrile/Chloroform/DMF	Ignitable	D001/D022
Waste Acetonitrile/ETOH/THF/Ethyl Acetate	Ignitable	D001/F003
Waste Acetonitrile/Ethanol/Acetone	Ignitable	D001
Waste Acetonitrile/Ethyl Acetate/Phenol	Ignitable	D001/F003
Waste Acetonitrile/Hexane/Methanol	Ignitable	D001/F003
Waste Acetonitrile/MEOH/Acetone	Ignitable	D001/F003
Waste Acetonitrile/MEOH/Chloroacetic Acid	Ignitable	D001/F003

Waste Acetonitrile/MEOH/Ethyl Acetate	Ignitable	D001/F003
Waste Acetonitrile/MEOH/Pentane	Ignitable	D001/F003
Waste Acetonitrile/Methanol	Ignitable	D001/F003
Waste Acetonitrile/Methanol/Ammonium Acetate	Ignitable	D001/F003
Waste Acetonitrile/Methanol/Octanol	Ignitable	D001/F003
Waste Acetonitrile/Methanol/THF	Ignitable	D001/F003
Waste Acetonitrile/Phosphate Buffer	Ignitable	D001
Waste Acetonitrile/Sodium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Acetonitrile/TEA	Ignitable	D001
Waste Acetonitrile/THF	Ignitable	D001
Waste Acetonitrile/THF/Ammonium Acetate	Ignitable	D001
Waste Acetonitrile/THF/Chloroform	Ignitable	D001/D022
Waste Acetonitrile/THF/Ethyl Acetate	Ignitable	D001/F003
Waste Acetonitrile/THF/MEOH/Ethyl Acetate	Ignitable	D001/F003
Waste Acetonitrile/THF/MEOH	Ignitable	D001/F003
Waste Acetonitrile/THF/Methylene Chloride	Ignitable	D001/F002
Waste Acetyl Chloride	Corrosive/Toxic	U006
Waste Acetyl Choline Chloride	Toxic	T
Waste Acetylene Tetrabromide(Tetrabromoethane)	Toxic	T
Waste Acetylsulfanyl Chloride	Corrosive	D002
Waste Acid (Mixed) NOS, Liquid	Corrosive	D002
Waste Acid Fuchsin Stain	Corrosive	D002
Waste Acid, NOS, Liquid	Corrosive	D002
Waste Acrolein	Toxic	P003
Waste Acrylamide	Toxic	U007
Waste Acrylamide/Guanidine/Urea	Toxic	U007
Waste Advantage	Ignitable	D001
Waste Aerospray 70	Toxic	T
Waste Aflatoxin	Toxic	T
Waste Aflatoxin Solution	Toxic	T
Waste Aflatoxin, NOS, Solid	Toxic	T
Waste Alcohols, NOS	Ignitable	D001
Waste Alcohol/Acid	Ignitable/Corrosive	D001/D002
Waste Alcohol/Formaldehyde/Xylene/Bouin's Solution	Ignitable	D001/F003
Waste Alcohol/Hexane	Ignitable	D001
Waste Alcohol/Xylene	Ignitable	D001/F003
Waste Alcohols (Mixed)	Ignitable	D001
Waste Alcohols/Acetic Acid/Formalin/Acetone/Ethyl Ether	Ignitable/Corrosive	D001/D002/F003
Waste Alcohols/Acetic Acid/Xvlene	Ignitable/Corrosive	D001/D002/F003
Waste Alcohols/Acrylamide/Dianisidine (1.2 mgl	Ignitable	D001
Waste Alcohols/Glutaraldehyde/Acrylamide	Ignitable	D00l
Waste Alcohols/Osmium Tetraoxide	Ignitable/Toxic	D001/P087

Waste Alcohols/Propylene Oxide	Ignitable	D001
Waste Alcohols/Xylene/Bouin's Solution/Formalin	Ignitable	D001/F003
Waste Alfa-Tox	Ignitable	T
Waste Allyl Alcohol	Ignitable	P005
Waste Alumina/Acid	Corrosive	D002
Waste Aluminum Chloride	Corrosive	D002
Waste Aluminum Oxide	Corrosive	D002
Waste Amex (Herbicide)	Toxic	T
Waste Amido Black Stain	Toxic	T
Waste Aminoethanethiol-HCL	Ignitable	D001
Waste Ammonia	Corrosive	D002
Waste Ammonia Solution	Corrosive	D002
Waste Ammonia/Methanol	Ignitable/Corrosive	D001/D002
Waste Ammonium Acetate	Toxic	T
Waste Ammonium Acetate/MEOH/ETOH	Ignitable	D001
Waste Ammonium Acetate/Methylene Chloride	Corrosive/Toxic	D002/F002
Waste Ammonium Chloride	Corrosive	D002
Waste Ammonium Formate	Toxic	T
Waste Ammonium Hydroxide. (Aqua Ammonia)	Corrosive	D002
Waste Ammonium Hydroxide/Sodium Hydroxide	Corrosive	D002
Waste Ammonium Lignin Sulfonate	Toxic	T
Waste Ammonium Molybdate	Toxic	T
Waste Ammonium Nitrate	Ignitable	D001
Waste Ammonium Nitrate/Ammonium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Ammonium Oxalate	Toxic	T
Waste Ammonium Persulfate	Ignitable/Reactive	D001/D003
Waste Ammonium Sulfide	Ignitable/Corrosive/Toxic	D001/D002
Waste Amyl Acetate	Ignitable	D001
Waste Amyl Trimethyl Silane	Ignitable	D001
Waste Aniline	Ignitable	U012
Waste Anisole/Diisopropylethanolamine	Ignitable	D001
Waste Antimony Trichloride	Corrosive	D002
Waste Aqua Regia (Nitric Acid/HCl)	Corrosive	D002
Waste Arsenic Acid	Toxic	P010
Waste Arsenic Molybdate	Toxic	D004
Waste Arsenic Trichloride	Toxic	D004
Waste Arsenic/Cadmium	Toxic	D004/D006
Waste Arsenic/Gallium	Toxic	D004
Waste Arsenical Compound, Liquid, NOS	Toxic	D004
Waste Arsenical Compound, Solid, NOS	Toxic	D004
Waste Asbestos	Toxic	T
Waste Asphaltum	Ignitable	D001

Waste Avadex (Herbicide)	Toxic	T
Waste Azo Dyes	Toxic	T
Waste Azodrin (Insecticide)	Toxic	T
Waste Azorbin 5	Toxic	T
Waste BS & Zenker's Solution	Toxic	T
Waste BS solution	Toxic	T
Waste BAM-EC	Toxic	T
Waste Balan L.C.	Toxic	T
Waste Barium Hydroxide	Corrosive	D005
Waste Bay HX 1901	Toxic	T
Waste Baygon 2%	Toxic	T
Waste Beckman's Solution	Ignitable	D001
Waste Benzene	Ignitable	D001/D018/F005
Waste Benzene/Ethyl Acetate/Alcohols	Ignitable	D001/D018/F003
Waste Benzene/lsobutanol	Ignitable	D001/D018
Waste Benzene/MEOH/Dichlorodimethyl Silane	Ignitable	D001/D018/F003
Waste Benzene/MEOH/Ethyl Acetate/Pet. Ether	Ignitable	D001/D018/F003
Waste Benzene/Phosgene	Ignitable	D001/D018
Waste Benzene/Sulfonyl Chloride	Ignitable	D001/D018
Waste Benzene/Thionyl Chloride	Ignitable/Corrosive	D001/D018/D002
Waste Benzene/Toluene/Ethyl Acetate	Ignitable	D001/D018/F003/F005
Waste Benzidine	Ignitable	U021
Waste Benzidine Compounds, NOS, Liquid	Ignitable	U021
Waste Benzine	Ignitable	D001
Waste Benzoin/Alcohol	Ignitable	D001
Waste Benzoyl Chloride	Corrosive	D002
Waste Benzylamine	Corrosive	D002
Waste Benzylodine Glycerol	Toxic	T
Waste Betanal (Herbicide)	Toxic	T
Waste Betanal 475	Toxic	T
Waste Bidrin	Toxic	T
Waste Biological Stains, NOS, Liquid	Toxic	T
Waste Bismuth Bromide	Toxic	T
Waste Bismuth Tetraoxide	Toxic	T
Waste Boron Trichloride	Corrosive	D002
Waste Boron Trifluoride	Corrosive	D002
Waste Boron Trifluoride/Heptane	Ignitable/Corrosive	D001/D002
Waste Boron Trifluoride/MEOH	Ignitable/Corrosive	D001/D002
Waste Bouins Solution	Corrosive	D002
Waste Brodifacoum (50 ppm)	Toxic	T
Waste Bromide Compounds, NOS	Corrosive	D002
Waste Bromine	Corrosive	D002

Waste Bromoacetaldebyde Diethyl Acetal	Toxic	T
Waste Bromobenzene	Ignitable	D001
Waste Bromodeoxyuridine	Toxic	D001
Waste Bromophenols	Ignitable	D001
Waste Butadiene	Ignitable	D001
Waste Butanedithiol	Ignitable	D001
Waste Butanol	Ignitable	D001
Waste Butanol/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Butyl Chloride/Isopropanol	Ignitable/Corrosive	D001/D002
Waste Butyl Lithium	Reactive	D001/D003
Waste Butyl Methacrylate	Ignitable	D001
Waste Butyric Acid	Corrosive	D002
Waste Cadmium Sulfate	Toxic	D006
Taste Calcium Cyanide	Toxic	PO21
Waste Calcium Hydride	Reactive	D001/D003
Waste Carbamate Pesticide, Liquid, NOS	Toxic	T
Waste Carbon Disulfide	Ignitable	P022
Waste Carbon tetrachloride	Toxic	U211
Waste Carbon tetrachloride/MEOH	Ignitable/Toxic	D001/D019
Waste Carbon tetrachloride/MEOH/Pump Oil	Ignitable/Toxic	D001/D019
Waste Carbozole (Dibenzopyrrole)	Toxic	T
Waste Carbyne (Herbicide)	Toxic	T
Waste Carcinogenic, n.o.s., Liquid	Toxic	T
Waste Carcillogenic, n.o.s., Solid	Toxic	T
Waste Catechol(Pyrocatechol)	Ignitable	D001
Waste Cellosolve acetate	Ignitable	D001
Waste Cesium Chloride	Toxic	T
Waste Chem-Serv 410	Corrosive	D002
Waste Chem-Serv 551	Corrosive	D002
Waste Chloroacetic Acid	Corrosive	D002
Waste Chloroacetyl Chloride	Corrosive	D002
Waste Chlorobenzilate	Ignitable	D002
Waste Chlorobenzoic Acid	Corrosive	D002
Waste Chloroform	Toxic	U044
Waste Chloroform/Acetic Acid	Corrosive/Toxic	D002/D022
Waste Chloroform/Acetonitrile/Methanol	Ignitable/Toxic	D001/D022
Waste Chloroform/DMF/Ethylene Oxide	Ignitable/Toxic	D001/D022
Waste Chloroform/DMF/Ethylene Oxide/Acetone	Ignitable/Toxic	D001/D022
Waste Chloroform/ETOH/Isoproponol	Ignitable/Toxic	D001/D022
Waste Chloroform/Ethanol	Ignitable/Toxic	D001/D022
Waste Chloroform/Ethanol/Methylene Chloride/Hexane	Ignitable/Toxic	D001/D022/F002
Waste Chloroform/Ether/Phenol	Ignitable/Toxic	D001/D022

Waste Chloroform/Ethyl Acetate	Ignitable/Toxic	D001/D022/F003
Waste Chloroform/Halogenated Hydrocarbons, NOS	Toxic	D022
Waste Chloroform/Methanol	Ignitable/Toxic	D001/D022/F003
Waste Chloroform/Nitrogen Bromide/Tannic Acid	Toxic	D022
Waste Chloroform/Phenol	Toxic	D022
Waste Chloromine T	Toxic	T
Waste Chlorophenol	Ignitable	U048
Waste Chloropropylate Miticide	Toxic	T
Waste Chromate Indicator	Toxic	T
Waste Chromic Acid Solution	Corrosive	D002/D007
Waste Chromic Acid, Solid (Chromic Trioxide)	Ignitable/Toxic	D001/D007
Waste Chromium Solution	Toxic	D007
Waste Chromium Standard	Toxic	D007
Waste Chromium/Cyanide Solution	Toxic	D007
Waste Chromium/Cyanide/Methanol	Ignitable/Toxic	D001/D007/F003
Waste Cleland's Reagent (Dithiothreitol)	Toxic	T
Waste Cobelx	Toxic	TT
Waste Collodion	Ignitable	D001
Waste Collophane	Toxic	T
Waste Contact weedkiller	Toxic	T
Waste Courmarin Compounds/Dimethyl Sulfoxide (DMSO)	Toxic	T
Waste Cresol	Ignitable	U052
Waste Cupric Sulfate (Copper Sulfate)	Toxic	T
Waste Cuprous Chloride	Toxic	T
Waste Cyanide	Reactive	D003
Waste Cyanide Solution, NOS	Reactive	D003
Waste Cyanide/Ethyl Ether/Acetonitrile/Toluene	Ignitable/Reactive	D001/D003/F003/F005
Waste Cyanide/Phenol	Reactive/Toxic	D003
Waste Cyanide/Sulfur Solution	Reactive	D003
Waste Cyanogen Bromide	Toxic	U246
Waste Cyclohexane	Ignitable	U056
Waste Cyclohexanol	Ignitable	D001
Waste Cyclohexanone	Ignitable	U057
Waste Cyclopentadienylirondicarbonyl Dimer	Ignitable	D001
Waste Cyclopentanol	Ignitable	D001
Waste Cygon 26.7	Toxic	T
Waste DDT (Dcichlorodiphenyltrichloroethane)	Ignitable	U061
Waste DDT 5%	Ignitable	U061
Waste DDT/Allethrin	Ignitable	U061
Waste DMF/Chloroform/DMSO	Ignitable/Toxic	D001/D022
Waste DMSO/Trichloroethylene	Ignitable	D001
Waste Darvan	Toxic	T

Waste Decane	Ignitable	D001
Waste Dexa-Klor Dust	Toxic	T
Waste Di-Syston	Toxic	T
Waste Diaminobenzidine (DAB)	Ignitable	D001
Waste Diaminobenzidine (DAB)/ Osmium	Ignitable/Toxic	D001/P087
Waste Dianisidine	Toxic	T
Waste Dianisidine (Solid)	Toxic	T
Waste Dianisidine/Ethidium Bromide	Toxic	T
Waste Dianisidine/PMN	Toxic	T
Waste Diazinon 4EC Herbicide	Toxic	T
Waste Diazinon AG 500	Toxic	T
Waste Diazmon 4E	Toxic	T
Waste Dibrom 8 Emulsion	Corrosive	D002
Waste Dibutyl Phthalate	Ignitable	U069
Waste Dichlorobenzene (Liquid)	Ignitable	U070
Waste Dichlorobenzene (Solid)	Ignitable	U072
Waste Dichlorodimethyl Silane	Ignitable	D001
Waste Dichloroethane	Ignitable	U077
Waste Dichloroethane!1-Nitroso-2-Naphthyl Nitrite	Ignitable	U077
Waste Dichloroethane/Naphthols/Nitrites	Ignitable	U077
Waste Dichloromethane/ETOH/Sulfuric Ac1d	Ignitable/Corrosive/Toxic	D001/D002/F002
Waste Dichlorophenol	Ignitable	U081
Waste Dicyandiamide	Toxic	T
Waste Dicyclopentadiene	Ignitable	D001
Waste Diesel Fuel	Ignitable	D001
Waste Diethylamine	Ignitable	D001
Waste Diethylene/Triethylene Glycol/Tetrachloroethylene	Ignitable/Toxic	D001/F002
Waste D1flotan	Toxic	T
Waste Digitonin	Toxic	T
Waste Dimercapto-Propanol	Toxic	T
Waste Dimethoxymetbane (Metbylal)	Ignitable	D001
Waste Dimethyl Formamide .	Ignitable	D001
Waste Dimethyl Pentane/Chloroform/Alcohols	Ignitable/Toxic	D001/D022
Waste Dimethyl Sulfate/Sulfuric Acid	Ignitable/Corrosive	D001/D002
Waste Dimethyl Sulfoxide (DMSO)	Ignitable	D001
Waste Dimethylaminobenzaldehyde(Ehrllch's Reagent)	Toxic	T
Waste Dimethylaminobenzoic Acid	Corrosive	D002
Waste Dimethyldichloro Silane	Ignitable	D001
Waste Dimethylethylene Diamine	Ignitable	D001
Waste Dimethylformamide/Methylene Chloride/Ethyl Acetate	Ignitable/Toxic	D001/F002/F003
Waste Dimilin 25W (Insecticide)	Toxic	T
Waste Dinitrochlorobenzene	Toxic	PO48

Waste Dinitrophenol .	Ignitable/Reactive	D001/D003
Waste Dinitrophenylhydrazine	Reactive	D001/D003
Waste Dioxane	Ignitable	U108
Waste Dioxane/Benzoyl Chloride	Ignitable/Corrosive	D001/D002
Waste Dioxane/Phenol	Ignitable/Toxic	D001
Waste Dipterex	Toxic	T
Waste Divinylbenzene	Ignitable	D001
Waste Dodecenyl Succinic Anhydride	Ignitable	D001
Waste Dodecylbenzenesulfonic Acid	Corrosive	D002
Waste Dow M-3625	Toxic	T
Waste Dowfane 85	Toxic	T
Waste Dowpon	Toxic	T
Waste Dowpon C	Toxic	T
Waste Dowtherm A	Toxic	F002
Waste Drazman 14G	Toxic	T
Waste Drugs (Outdated), NOS, Liquid	Toxic	T
Waste Dursban 2E	Toxic	T
Waste Dursban M	Toxic	T
Waste Dyfonate 5G	Toxic	T
Waste Dylox	Toxic	T
Waste Econofluor (Scintillation Fluid)	Ignitable	D001
Waste Epon Resin	Ignitable	D001
Waste Eptam	Toxic	T
Waste Eptam 6E	Toxic	T
Waste Ethane	Ignitable	D001
Waste Ethanedithiol	Ignitable	D001
Waste Ethanethiol	Ignitable	D001
Waste Ethanethiol/Methanol	Ignitable	D001/F003
Waste Ethanethiol/Methanol/Ethanol	Ignitable	D001/F003
Waste Ethanol	Ignitable	D001
Waste Ethanol/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Ethanol/Ether	Ignitable	D001/F003
Waste Ethanol/Ether/Sodium Hydroxide/Acetone	Ignitable/Corrosive	D001/D002/F003
Waste Ethanol/Hexane/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Ethanol/Methanol/Acetic Acid	Ignitable/Corrosive	D001/D002/F003
Waste Ethanol/Potassium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Ethanol/Sulfuric Acid/Trichloroacetic Acid	Ignitable/Corrosive	D001/D002
Waste Ethanol/Toluene	Ignitable	D001/F005
Waste Ether/Toluene/Acetone/ETOH	Ignitable	D001/F003/F005
Waste Ethers	Ignitable	D001/F003
Waste Ethidium Bromide	Toxic	T
Waste Ethidium Bromide/Isopropanol	Ignitable/Toxic	D001

Waste Ethidium Bromide/Chlorox	Toxic	T
Waste Ethyl Acetate	Ignitable	U112
Waste Ethyl Acetate/Acetonitrile/Chloroform	Ignitable/Toxic	D001/D022/F003
Waste Ethyl Acetate/Formic Acid	Ignitable/Corrosive	D002/F003
Waste Ethyl Acetate/Hexane	Ignitable	D001/F003
Waste Ethyl Acetate/Pet. Ether/Heptane/Methylene Chloride	Ignitable/Toxic	D001/F002/F003
Waste Ethyl Acetoacetate	Ignitable	D001
Waste Ethyl Acetominomalomat	Toxic	T
Waste Ethyl Acrylate/Methyl Acrylate	Ignitable	D001
Waste Ethyl Acrylate/Methylene Chloride/Ammonium Acetate	Ignitable/Toxic	D001/F002
Waste Ethyl Amyl Carbinol	Ignitable	D001
Waste Ethyl Cyanoacetate	Ignitable	D001
Waste Ethyl Diazoacetate	Ignitable	D001
Waste Ethyl Ether	Ignitable	U117
Waste Ethyl Ether/Alcohol	Ignitable	D001/F003
Waste Ethyl Ether/Ethyl Acetate/Hexane/Dichloromethane	Ignitable	D001/F002/F003
Waste Ethyl Ether/Methanol	Ignitable	D001/F003
Waste Ethyl Formate	Ignitable	D001
Waste Ethyl Trichlorosilane	Ignitable	D001
Waste Ethylamine	Ignitable	D001
Waste Ethylene Glycol	Ignitable	D001
Waste Ethylene Glycol Monomethyl Ether	Ignitable	D001
Waste Ethylene Glycol/TCE/Triethylene Glycol/Xylene	Ignitable/Toxic	D001/F002/F003
Waste Ethylene Oxide (11%)	Ignitable	U115
Waste Ethylenediamine	Ignitable	D001
Waste Ethylenediamine Tetraacetic Acid (EDTA)	Toxic	T
Waste Ethylene Oxide/Pyridine/Ethyl Acrylate	Ignitable	D001/F005
Waste Ethylhexadecyldimethyl Ammonium Bromide	Corrosive	D002
Waste FMC 35001	Toxic	T
Waste Ferric Chloride	Corrosive	D002
Waste Ferrous Ammonium Sulfate	Toxic	T
Waste Flammable Liquid, Organic, Solvent Mixture, NOS	Ignitable	D001/F003/F005
Waste Flammable Liquid, NOS, Organic, Solvent NOS	Ignitable	D001/F003/F005
Waste Flammable Liquid, NOS, Paint Thinner, NOS	Ignitable	D001
Waste Flammable Liquid, NOS, Scintillation Fluid, NOS	Ignitable	D001
Waste Fluoboric Acid (HBF)	Corrosive	D002
Waste Fluoresone(Ethyl p-Fluorophenyl Sulfone)	Toxic	T
Waste Formaldehyde	Ignitable	U122
Waste Formaldehyde/Acetone	Ignitable	D001
Waste Formaldehyde/Alcohol	Ignitable	D001
Waste Formaldehyde/ETOH/Methylene Chloride	Ignitable/Toxic	D001/F003
Waste Formaldehyde/Toluene/Xylene	Ignitable	D001/F003/F005

Waste Formalin	Toxic	T
Waste Formalin Acetate (10%)	Toxic	T
Waste Formalin/Methyl Cellosolve/Xylene	Ignitable	D001/F003
Waste Formalin/Toluene	Ignitable	D001/F005
Waste Formalin/Xylene/Alcohols	Ignitable	D001/F003
Waste Formalin/Xylene/Ethanol/Bouin's	Ignitable	D001/F003
Waste Formamide(Methanamide)	Ignitable	D001
Waste Formamide(solid)	Ignitable	D001
Waste Formic Acid	Corrosive	U123
Waste Formic Acid/TCA	Corrosive	D002
Waste Formula 40	Toxic	F002
Waste Freons	Toxic	T
Waste Fumazone 86	Toxic	T
Waste Fungicide, NOS, Liquid	Toxic	T
Waste Furloe l24-20G	Toxic	T
Waste GWK	Toxic	T
Waste GY-Sl	Toxic	T
Waste Galecron 4EC (Herbicide)	Toxic	T
Waste Gallium (metal)	Toxic	D002
Waste Gamma Amino Butyric Acid (Piperidic Acid)	Corrosive	D002
Waste Gasoline	Ignitable	D001
Waste Glutaraldehyde	Toxic	T
Waste Glycerol	Toxic	T
Waste Glycerol/Xylene/Kerosene	Ignitable	D001/F003
Waste Glycol	Toxic	T
Waste Glycol/Acetone	Ignitable	D001
Waste Glycol/Trichloroethylene	Ignitable/Toxic	D001/F002
Waste Guthion 25	Toxic	F001
Waste Halogenated Compounds	Ignitable	T
Waste Hazardous, NOS, Liquid	Toxic	T
Waste Hazardous, NOS, Solid	Toxic	T
Waste Hazardous Pesticide, NOS, Solid	Toxic	T
Waste Heavy Metal, NOS, Liquid	Toxic	T
Waste Hema-TeK Stain PaK	Toxic	D001
Waste Heptane	Ignitable	D001
Waste Heptane/Boron Tirfluoride	Ignitable	D001
Waste Heptane/Isopropanol	Ignitable	D001
Waste Heptane/Methanol	Ignitable	D001/F005
Waste Heptane/Methanol/Acetonitrile	Ignitable	D001/F005
Waste Heptane/Propanol	Ignitable	D001
Waste Hexamethyldisilazane	Toxic	T
Waste Hexane	Ignitable	D001

Waste Hexane/Acetic Acid/Ethyl Acetate	Ignitable/Corrosive	D001/D002/F003
Waste Hexane/Acetone/Alcohols/Methylene Chloride	Ignitable/Toxic	D001/F003
Waste Hexane/Chloroform/MEOH	Ignitable/Toxic	D001/D022
Waste Hexane/Formic Acid	Ignitable/Corrosive	D001/D002
Waste Hexanes	Ignitable	D001
Waste Hydrazine (95+%)	Toxic	U133
Waste Hydrazine Sulfate	Toxic	T
Waste Hydrazine (Anhydrous)	Toxic	U133
Waste Hydriodic Acid	Corrosive	D002
Waste Hydrochloric Acid	Corrosive	D002
Waste Hydrochloric Acid/Cresolphthalein	Corrosive	D002
Waste Hydrochloric Acid/Lanthanum (A.A. Waste)	Corrosive	D002
Waste Hydrochloric Acid/Lead	Corrosive/Toxic	D002/D008
Waste Hydrochloric Acid/Petroleum Ether	Ignitable/Corrosive	D001/D002
Waste Hydrochloric Acid/Sodium Hydroxide/Ammonium Hydroxid	Corrosive	D002
Waste Hydrofluoric Acid	Corrosive	U134
Waste Hydrogen Bromide (HBR)	Corrosive	D002
Waste Hydrogen Fluoride	Corrosive	U134
Waste Hydrogen Peroxide	Reactive	D003
Waste Hydrogen Sulfide	Toxic	U135
Waste Hydroquinone	Toxic	T
Waste Hypochlorites	Ignitable	D001
Waste Hypophosphorus Acid	Corrosive	D002
Waste Imidan l-E	Toxic	T
Waste Inorganic Acids, Liquid, NOS	Corrosive	D002
Waste Insecticide, Dry, NOS	Toxic	T
Waste Iodide Solution	Toxic	T
Waste Iodine	Ignitable	D001
Waste Iodine Iodate	Toxic	T
Waste Iodine Monochloride	Toxic	T
Waste Isoamyl Alcohol/Ethidium Bromide	Ignitable	D001
Waste Isoamyl Formate	Ignitable	D001
Waste Isobutyl Alcohol	Ignitable	U140
Waste Isobutyric Acid	Corrosive	D002
Waste Isophthaloyl Dichloride	Toxic	T
Waste Isopropanol	Ignitable	D001
Waste Isopropanol/KOH	Ignitable/Corrosive	D001/D002
Waste Isopropanol/Potassium Hydroxide	Ignitable/Corrosive	D001/D002
Waste Isotron (Freon 11)	Toxic	F002
Waste JP-4	Ignitable	D001
Waste Jeffamine (Alkaline)	Corrosive	D002
Waste Kaiser Freon 11	Toxic	F002

Waste Keltane EC	Toxic	T
Waste Kerosene	Ignitable	D001
Waste Kerosene/Ethylene Glycol	Ignitable	D001
Waste Kerosene/Ethylene Glycol/Trichloroethylene	Ignitable/Toxic	D001/F002
Waste Kjeldahl Solution (Sulfuric Acid/Mercuric Oxide)	Corrosive/Toxic	D002/D009
Waste Klearol	Toxic	T
Waste Kodak Omnigraphic Developer	Corrosive	D002
Waste Kodak Omnigraphic Developer & Replenisher	Corrosive	D002
Waste Korlan 24E	Toxic	T
Waste Korlan 25W (Fly Control)	Toxic	T
Waste Lannate (Insecticide & Nematocide)	Toxic	T
Waste Lanthanum Chloride	Toxic	T
Waste Lauryl Pyridinium Chloride	Toxic	T
Waste Lead Acetate	Toxic	U144
Waste Lead Iodide	Toxic	D008
Waste Lead Nitrate	Ignitable/Toxic	D001/D008
Waste Lead Solution (mixed)	Toxic	D008
Waste Lead Standard	Toxic	D008
Waste Lignins, NOS, Liquid	Toxic	T
Waste Lime-Away (Sodium Hypochlorite/Sodium Hydroxide)	Corrosive	D002
Waste Lithium Aluminum Hydride	Reactive	D003
Waste Lithium Amide	Reactive	D003
Waste Lithium Borohydride	Reactive	D003
Waste Lithium Chloride	Toxic	T
Waste Lithium Metal	Reactive	D003
Waste Lubricating Oil - Misc	Ignitable	D001
Waste Magnesium	Reactive	D001
Waste Magnesium Bromate	Toxic	T
Waste Magnesium Dioxide (Peroxide)	Ignitable/Reactive	D001/D003
Waste Magnesium Oxide	Toxic	T
Waste Magnesium Perchlorate	Ignitable/Reactive	D001/D003
Waste Magnesium Solution	Toxic	T
Waste Magnesium Sulfate /Bromine	Toxic/Corrosive	D002
Waste Malathion	Toxic	T
Waste Malathion Ee-57	Toxic	T
Waste Malathion EM-S	Toxic	T
Waste Maleic Acid	Corrosive	D002
Waste Maleic Anhydride	Toxic	U147
Waste Maleonic Acid	Corrosive	D002
Waste Malononitrile(Cyanoacetonitrile)	Ignitable	U149
Waste Mercaptoethanol	Ignitable/Toxic	D001
Waste Mercuric Chloride (B-5 Waste)	Toxic	D009

Waste Mercuric Chloride/Basic Fuchsin/Malachite Green	Toxic	D009
Waste Mercuric Oxide	Toxic	D009
Waste Mercury	Toxic	D009/U151
Waste Mercury Compound, NOS, Liquid	Toxic	D009
Waste Mercury Spill Solution	Toxic	D009
Waste Mercury Spill Waste, NOS, Solid	Toxic	D009
Waste Mercury/TCA/ETOH	Ignitable/Toxic	D001/D009
Waste Meta-Systox-R	Toxic	T
Waste Methacrylic Acid	Ignitable	D001
Waste Methanethiol(Methyl Mercaptan)	Ignitable	D001
Waste Methanol.	Ignitable	U154
Waste Methanol(20%)/Water	Ignitable	U154
Waste Methanol/Acetic Acid	Ignitable/Corrosive	D001/D002/F003
Waste Methanol/Acetic Acid/Acrylamide	Ignitable/Corrosive	D001/D002/F003
Waste Methanol/Acetic Acid/Colchicine	Ignitable/Corrosive	D001/D002/F003
Waste Methanol/Acetonitrile	Ignitable/Corrosive	D001/F003
Waste Methanol/Acetonitrile/Acetic Acid	Ignitable/Corrosive	D001/D002/F003
Waste Methanol/Acetonitrile/TEA	Ignitable	D001/F003
Waste Methanol/Acetonitrile/Tetrahydrofuran	Ignitable	D001/F003
Waste Methanol/Chloroform	Ignitable/Toxic	D001/D022/F003
Waste Methanol/Ethanol/Acetic Acid	Ignitable/Corrosive	D001/D002
Waste Methanol/Ethyl Ether	Ignitable	D001/F003
Waste Methanol/Methylene Chloride/Isopropanol	Ignitable/Toxic	D001/F002/F003
Waste Methanol/Methylene Chloride/Sulfuric Acid	Ignitable/Corrosive/Toxic	D001/D002/F002
Waste Methanol/Methylene Chloride/THF	Ignitable/Toxic	D001/F002/F003
Waste Methanol/Phenol/Catechol	Ignitable/Toxic	D001/F003
Waste Methanol/Phosphates	Ignitable	D001/F003
Waste Methanol/Phosphates/Acetone/Ethyl Acetate	Ignitable	D001/F003
Waste Methanol/Tetrahydrofuran	Ignitable	D001/F003
Waste Methoxy-Chlor 2EC	Toxic	D014
Waste Methyl Isobutyl Carbinol	Ignitable	D001
Waste Methyl Lithium	Reactive	D003
Waste Methyl Methacrylate	Ignitable	U162
Waste Methyl Nitrate	Ignitable	D001
Waste Methyl Orange Stain	Toxic	T
Waste Methyl Pentane	Ignitable	D001
Waste Methyl Sulfide (Dimethyl Sulfide)	Ignitable	D001
Waste Methylamine	Ignitable	D001
Waste Methylamine/Sodium Azide/Pump Oil/Glycerol	Ignitable/Toxic	D001
Waste Methylaminopropane	Ignitable	D001
Waste Methylcellosolve	Ignitable	D001
Waste Methylcellosolve/Toluene/Ethanolamine	Ignitable	D001/F005

Waste Methylcyclohexane	Ignitable	D001
Waste Methylene Chloride	Toxic	U080
Waste Methylene Chloride/Acetone/Ethyl Acetate/Alcohols	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/Acetone/Methanol/Ethanol	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/Alcohols	Ignitable/Toxic	D001/F002
Waste Methylene Chloride/DMSO/Acetic Acid/Alcohols	Ignitable/Toxic	D001/D002/F002
Waste Methylene Chloride/Dimethyl Formamide/ETOH	Ignitable/Toxic	D001/F002
Waste Methylene Chloride/ETOH/Ethyl Acetate/TEA	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/ETOH/MEOH/HCL/NaOH	Ignitable/Corrosive	D001/D002/F002/F003
Waste Methylene Chloride/Ethanol/Ethyl Acetate	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/Ethyl Acetate	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/Hexanes/MEOH	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/MEOH/Hexanes/To1uene	Ignitable/Toxic	D001/F002/F003/F005
Waste Methylene Chloride/Methanol/Hexanes	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/TFA/Ethanol	Ignitable/Toxic	D001/F002
Waste Methylene Chloride/THF/Dioxane/Ether/Ethyl Acetate	Ignitable/Toxic	D001/F002/F003
Waste Methylene Chloride/Trifluoroacetic Acid/Alcohols	Ignitable/Corrosive	D001/D002/F002
Waste Miticide	Toxic	T
Waste Monitor 4	Toxic	T
Waste Monoethanolamine	Ignitable	D001
Waste Morestan (Miticide) 25% Wetab1e Powder	Toxic	T
Waste Muriatic Acid	Corrosive	D002
Waste Myristic Acid	Corrosive	D002
Waste N-Acetyl-DL-Methionine	Toxic	T
Waste N-Butanol	Ignitable	U031
Waste N-Butanol/MEOH/Acetone/Benzene/Acetonitrile	Ignitable	D001/D018/F003
Waste N-Propano1	Ignitable	D001
Waste N-Serve 24	Toxic	T
Waste Nacconate-100	Toxic	T
Waste Naphthalene	Ignitable	U164
Waste Naphthylamine	Ignitable	D001
Waste Nematicide	Toxic	T
Waste Nematocide Solution 17.1	Toxic	T
Waste Nickel Standard	Toxic	T
Waste Nickel Sulfate	Toxic	T
Waste Nickel/Chromium/Nitric Acid (5%)	Corrosive/Toxic	D002/D007
Waste Ninhydrin-DMSO	Ignitable	D001
Waste Ninhydrin/Methylcellsolve/Dioxane	Ignitable	D001
Waste Nitric Acid	Ignitable/Corrosive	D001/D002
Waste Nitrlc Acid (50%)	Ignitable/Corrosive	D001/D002
Waste Nitric Acid/Hydrochloric Acid	Ignitable/Corrosive	D001/D002
Waste Nitroanthanilic Acid	Corrosive	D002

Waste Nitrobenzene	Ignitable	U169
Waste Nitrobenzoic Acid	Corrosive	D002
Waste Nitromethane	Ignitable	D001
Waste Nitrophenol	Ignitable	U170
Waste Nitrophenols	Ignitable	U170
Waste Nitrosoguanidine	Ignitable	D001
Waste Nitrotoluene	Ignitable	D001
Waste NU-Film-BT	Toxic	T
Waste Nynamite	Toxic	T
Waste o-Chlorophenol	Ignitable	U048
Waste Omnifluor Scintillation Fluid	Ignitable	D001
Waste Organic Solvent, NOS, Adhesive Release	Ignitable	D001
Waste Organics (solid)	Toxic	T
Waste Organa-Selenium Solution	Toxic	D010
Waste Osmium Tetraoxide	Toxic	P087
Waste Osmium Tetraoxide/Alcohol	Ignitable/Toxic	D001/P087
Waste Osmium Tetraoxide/Glutaraldehyde	Toxic	P087
Waste Osmium Tetraoxide/Methanol	Ignitable/Toxic	D001/F003/P087
Waste Osmium Tetraoxide/Spurr's Resin	Toxic	P087
Waste Outdated Drugs, NOS, Solid	Toxic	T
Waste Oxidizer, NOS, Liquid	Ignitable	D001
Waste Oxidizer, NOS or Oxidizing Material, NOS	Ignitable	D001
Waste Oxydipropionitrile	Ignitable	D001
Waste P-Toluene Sulfonic Acid	Corrosive	D002
Waste P-Toluenesulfonyl Chloride	Corrosive	D002
Waste PGP-I03	Toxic	T
Waste Paint Thinner	Ignitable	D001
Waste Paint, NOS, Liquid	Ignitable	D001
Waste Pair EM6	Toxic	T
Waste Palladium Chloride	Toxic	T
Waste Paraffin Oil	Ignitable	D001
Waste Paraformaldehyde	Ignitable	D001
Waste Paraquat	Toxic	T
Waste Parathion	Toxic	P089
Waste Parathion EC-46	Toxic	P089
Waste Paratox 3G	Toxic	T
Waste PenCap M	Toxic	T
Waste Pentafluorobenzoyl Chloride	Corrosive	D002
Waste Pentane	Ignitable	D001
Waste Pentanedione	Ignitable	D001
Waste Perchloric Acid	Ignitable/Corrosive	D001/D002
Waste Perchloric Acid (70%)	Ignitable/Corrosive	D001/D002

Waste Perchloric Acid (<50%)	Ignitable/Corrosive	D001/D002
Waste Perchloric Acid/Nitric Acid	Ignitable/Corrosive	D001/D002
Waste Pesticide Wash	Toxic	T
Waste Pesticide, Cygon	Toxic	T
Waste Pesticides, NOS	Toxic	T
Waste Petroleum Ether (Ligroine)	Ignitable	D001
Waste Petroleum Ether/Acetone/Methanol/Ethanol	Ignitable	D001/F003
Waste Petroleum Ether/Benzene (96:4)	Ignitable	D001/D018
Waste Phenol	Toxic	U188
Waste Phenol Red(Stain)	Ignitable	D001
Waste Phenol/Acetic Acid/Chromic Acid	Corrosive/Toxic	D002/D007
Waste Phenol/Catechol/Methylene Chloride	Ignitable/Toxic	D001/F002
Waste Phenol/Chloroform	Toxic	D022
Waste Phenol/Dimethylnitrosamine/N1trosoguanadine	Ignitable/Toxic	D001
Waste Phenol/Eth1dium Bromide/Acetic Acid	Corrosive/Toxic	D002
Waste Phenol/Ethidium Bromide/Acrylamide	Toxic	T
Waste Phenol/Tannic Acid	Corrosive/Toxic	D002
Waste Phenolic Compounds	Toxic	T
Waste Phenolphthalein	Toxic	T
Waste Phenyl Isocyanate (Phenyl Carbylamine)	Ignitable	D001
Phenylhydrazine	Toxic	T
Waste Phenylmagnesium Bromide	Toxic	T
Waste Phosgene (Diphosgene)	Toxic	P095
Waste Phosgene/Benzene	Ignitable/Toxic	D018/P095
Waste Phosphoric Acid	Corrosive	D002
Waste Phosphorus Oxychloride	Corrosive	D002
Waste Phosphorus Pentachloride	Corrosive	D002
Waste Phosphorus Pentoxide	Corrosive	D002
Waste Phosuel 3EC	Toxic	T
Waste Photo Fixer	Corrosive/Toxic	D002/D011
Waste Photocopy Dispersant	Corrosive	D002
Waste Photographic Activator, NOS, Liquid	Corrosive	D002
Waste Photographic Chemicals, NOS, Liquid	Corrosive	D002
Waste Photographic Developer, Corrosive, Material, NOS	Corrosive	D002
Waste Photographic Stabilizer, NOS, Liquid	Corrosive	D002
Waste Phototypesetting Activator	Corrosive	D002
Waste Phototypesetting Stabilizer	Corrosive	D002
Waste Phthalic Acid	Corrosive	D002
Waste Phthalic Anhydride	Toxic	U190
Waste Piperidine	Corrosive	D002
Waste Poison B, Liquid, NOS	Toxic	T
Waste Poison B, NOS, Pesticide Wash, NOS, Liquid	Toxic	T

Waste Polyethylene Glycol	Ignitable	D001
Waste Polyphosphoric Acid	Corrosive	D002
Waste Potassium Chloride/Methanol/Acetic Acid	Ignitable/Corrosive	D001/D002/F003
Waste Potassium Cyanide	Toxic	P098
Waste Potassium Cyanide/Methanol/Chromium	Ignitable/Toxic	D001/D003/D007/F003
Waste Potassium Dichromate	Ignitable/Toxic	D001/D007
Waste Potassium Ferrocyanide	Toxic	T
Waste Potassium Hydride	Reactive	D003
Waste Potassium Hydroxide	Corrosive	D002
Waste Potassium Hydroxide/Isopropanol	Ignitable/Corrosive	D001/D002
Waste Potassium Permanganate	Ignitable	D001
Waste Potassium Permanganate/KOH	Ignitable/Corrosive	D001/D002
Waste Potassium Polysulfide/Potassium Thiosulfate	Toxic	T
Waste Pounce	Toxic	T
Waste Pramitol 2SE	Toxic	T
Waste Propane	Ignitable	D001
Waste Propane Su1tone/Tributyl Phospine	Toxic	T
Waste Propanediol	Ignitable	D001
Waste Propanedithiol	Ignitable	D001
Waste Propionic Acid	Corrosive	D002
Waste Propylene Oxide	Ignitable	D001
Waste Propylene Oxide Fixative	Ignitable	D001
Waste Propylene Oxicle/Dichloroethane/Alcohols	Ignitable	D001
Waste Propylene Oxide/ETOH	Ignitable	D001
Waste Propylene Oxide/ETOH/Acetone	Ignitable	D001
Waste Prowl Herbicide	Toxic	T
Waste Pump Oil	Ignitable	D001
Waste Pump Oil/Acetone	Ignitable	D001
Waste Pyridine	Ignitable	U191
Waste Pyridine/Chromium/Acetic Acid/THF	Ignitable/Toxic	D001/D002/D007/F005
Waste Pyridine/MEOH/Triethylamine	Ignitable	D001/F003
Waste Pyridine/Methylene Chloride/Chromium/DMF/THF/Dioxane	Ignitable/Toxic	D001/D007/F003/F005
Waste Pyridine/Petroleum Ether	Ignitable	D001/F005
Waste Pyrogallol(Pyrogallic Acid}	Ignitable	D001
Waste Pyrophosphate Pesticide (15%)	Toxic	T
Waste R-M Enamel Reducer	Ignitable	D001
Waste Racon Freon 1l	Toxic	F002
Waste Raney's Nickel (Nickel Catalyst)	Reactive	D003
Waste Resins	Ignitable	D001
Waste Resorcinol	Ignitable	U201
Waste Resorcyclic Acid (Beta)	Toxic	T
Waste Ruelene 25E	Toxic	T

Waste S-Methyl Isothiourea Sulfate	Toxic	T
Waste Sarolex	Toxic	T
Waste Scintillation Cocktail, NOS	Ignitable	D001
Waste Scintillation Fluid/Chloroform/Mercury/Isopropanol	Ignitable/Toxic	D001/D009/D022
Waste Selenium Oxide	Toxic	D010
Waste Sencor (Herbicide) 50% Wetable Powder	Toxic	T
Waste Sevinol, 4	Toxic	T
Waste Shell Insecticide	Toxic	T
Waste Silane/Pentane	Ignitable/Reactive	D001/D003
Waste Silver Nitrate	Ignitable/Toxic	D001/D011
Waste Silver Nitrate/Xylene/Formalin	Ignitable/Toxic	D001/D011/F003
Waste Sinox General	Toxic	T
Waste Sodium (Metal)	Reactive	D003
Waste Sodium Acetate/THF/MEOH	Ignitable	D001/F003
Waste Sodium Azide	Toxic	P105
Waste Sodium Azide/HCl/KOH	Corrosive/Toxic	D002
Waste Sodium Bisulfate	Toxic	T
Waste Sodium Bisulfite	Toxic	T
Waste Sodium Dichromate	Ignitable/Toxic	D001/D007
Waste Sodium Hydrosulfite	Ignitable/Reactive	D001/D003
Waste Sodium Hydroxide	Corrosive	D002
Waste Sodium Hydroxide/Ethanol	Ignitable/Corrosive	D001/D002
Waste Sodium Hydroxide/Ether/Methylene Chloride	Ignitable/Corrosive/Toxic	D001/D002/F002
Waste Sodium Hypochlorite	Ignitable	D001
Waste Sodium Isothionale	Toxic	T
Waste Sodium N-Methyl-N-Oleoyltaurate	Toxic	T
Waste Sodium perchlorate	Ignitable/Reactive	D001/D003
Waste Sodium peroxide	Ignitable/Reactive	D001/D003
Waste Sodium Sulfide	Reactive	D003
Waste Sodium Thiosulfate	Toxic	T
Waste Sodium Tripolyphosphate	Toxic	T
Waste Sodium/THF	Ignitable/Reactive	D001/D003
Waste Spurr's Resin	Toxic	T
Waste Spurr's Resin/Propylene Oxide	Toxic	T
Waste Stannous Chloride (solid)	Toxic	T
Waste Styrene	Ignitable	D001
Waste Succinic Acid	Corrosive	D002
Waste Succinimide	Tox**ic**	T
Waste Sulfamic Acid	Toxic	T
Waste Sulfur	Ignitable	D001
Waste Sulfur Dioxide	Toxic	T
Waste Sulfur Solution	Toxic	T

Waste Sulfuric Acid	Corrosive	D002
Waste Sulfuric Acid/Ammonium Persulfate	Ignitable/Corrosive	D001/D002
Waste Sulfuric Acid/Cotton Lint	Corrosive	D002
Waste Sulfuric Acid/Dimethyl Sulfate	Corrosive	D002
Waste Sulfuric Acid/Lanthanum Chloride (A.A. Waste)	Corrosive	D002
Waste Sulfuric Acid/Nitric Acid	Ignitable/Corrosive	D001/D002
Waste Sulfuric Acid/Potassium Chromate	Ignitable/Corrosive/Toxic	D001/D002/D007
Waste Sulfurous Acid	Corrosive	D002
Waste Sulfuryl Chloride	Corrosive	D002
Waste Supracide	Toxic	T
Wasee Supracide 2E	Toxic	T
Waste Surflan Herbicide, Liquid	Toxic	T
Waste TFA/Acetic Acid/Pyridine	Ignitable/Corrosive	D002/F005
Waste TFA/DMF/Dioxane	Ignitable/Corrosive	D001/D002
Waste TFA/Diisopropylethylamine/Methylene Chloride	Ignitable/Corrosive/Toxic	D001/D002/F002
Waste TFA/Ethanol/Methylene Chloride	Ignitable/Corrosive/Toxic	D001/D002/F002
Waste TFA/Methylene Chloride/DMF/Dioxane	Ignitable/Corrosive/Toxic	D001/D002/F002/F003
Waste TFA/Methylene Chloride/DMF/Ethyl Acetate	Ignitable/Corrosive/Toxic	D001/F002/F003
Waste TOK E-25	Toxic	T
Waste Temik	Toxic	T
Waste Temik 10G	Toxic	T
Waste Temik 15G	Toxic	T
Waste Temik TSX	Toxic	T
Waste Teremac Pesticide	Toxic	T
Waste Terephthalic Acid/Acetic Acid	Corrosive	D002
Waste Tert-Butyl Alcohol	Ignitable	D001
Waste Tert-Butyl Chloride	Ignitable	D001
Waste Tetrabromide	Toxic	T
Waste Tetrabromomethane	Toxic	T
Waste Tetraethyl Ammonium Bromide	Corrosive	D002
Waste Tetraethyl Ammonium Hydroxide	Corrosive	D002
Waste Tetrahydrofuran (THF)	Ignitable	U213
Waste Tetrahydrofuran/Acetonitrile/Chloroform	Ignitable/Toxic	D001/D022
Waste Tetrahydrofuran/Acetonitrile/MEOH/Ammonium Acetate	Ignitable/Toxic	D001/F003
Waste Tetrahydrofuran/Acetonitrile/Methanol	Ignitable	D001/F003
Waste Tetrahydrofuran/Methanol/Acetonitrile	Ignitable	D001/F003
Waste Tetrahydrofuran/Methylene Chloride	Ignitable/Toxic	D001/F002
Waste Tetrahydrofuran/Pyridine/Hexane/Methylene Chloride	Ignitable/Toxic	D001/F002/F005
Waste Tetramethylbenzidine	Ignitable	D001
Waste Tetramethylenesulfone	Toxic	T
Waste Theophylline	Toxic	T
Waste Thimersal/J-13	Toxic	T

Waste Thimet 600 (Insecticide)	Toxic	T
Waste Thloamyl Chloride/Toluene	Ignitable/Toxic	D001/F005
Waste Thiocyanate	Toxic	T
Waste Thionyl Chloride	Corrosive	D002
Waste Thionyl Chloride/ Carbon Tetrachloride	Corrosive/Toxic	D002/D019
Waste Toluene	Ignitable	U220
Waste Toluene Diisocyanate	Toxic	U223
Waste Toluene/Acetone	Ignitable	D001/F005
Waste Toluene/Acetonitrile/Methanol	Ignitable	D001/F003/F005
Waste Toluene/Formic Acid/Sulfuric Acid	Ignitable/Corrosive	D001/D002
Waste Toluene/MEOH/Propane	Ignitable	D001/F003/F005
Waste Toluene/TEA/Acetonitrile/Pump Oil	Ignitable	D001/F005
Waste Toluenediamine	Ignitable	U221
Waste Toluidine	Toxic	U328
Waste Toluidine (0)	Toxic	U328
Waste Toluol/(Triton X)	Ignitable	D001/F005
Waste Torbidan 28	Toxic	T
Waste Toxaphene 60	Toxic	D015
Waste Trichloroacetic Acid (TCA) (Liquid)	Corrosive	D002
Waste Trichloroacetic Acid (TCA) (Solid)	Corrosive	D002
Waste Trichloroacetic Acid/Alcohols/Acrylonitrile	Ignitable/Corrosive	D001/D002
Waste Trichloroacetic Acid/Hydrochloric Acid.	Corrosive	D002
Waste Trichloroacetic Acid/MEOH/ETOH	Ignitable/Corrosive	D001/D002/F003
Waste Trichloracetic Acid/Perchloric Acid/Nitrates	Ignitable/Corrosive	D001/D002
Waste Trichloroacetonitrile .	Ignitable	D001
Waste Trichloroethane	Toxic	U226
Waste Trichloroethylene (TCE)	Toxic	U228
Waste Trichloroethylene/Carbon Tetrachloride	Toxic	D019/F002
Waste Trichloroethylene/Carbon Tetrachloride/DMN	Toxic	D019/F002
Waste Trichloroethylene/Chloroform	Toxic	D022/F002
Waste Trichloroethylene/Dichloroethylene	Toxic	F002
Waste Trichloroethylene/Kerosene/Isopropyl Alcohol	Ignitable/Toxic	D001/F002
Waste Tricine	Toxic	
Waste Triethanolamine	Ignitable	D001
Waste Triethyl 0 Formate	Ignitable	D001
Waste Triethylamine	Ignitable	D00
Waste Triethylamine/Toluene/Acetonitrile	Ignitable	D001/F005
Waste Triethylene Glycol	Ignitable	D001
Waste Triethylenetetramine (TETA)/Polyethylene Glycol	Ignitable	D001
Waste.Trifluoroacetic Acid (TFA)	Corrosive	D002
Waste Trifluorotrichloroethane(SAF T SOL)	Toxic	T
Waste Trimethyl Borate	Ignitable	D001

Waste Trimethylamine	Ignitable	D001
Waste Trimethylchlorosilane	Ignitable	D001
Waste Triphenylchloromethane	Ignitable	D001
Waste Tris-EDTA -	Toxic	T
Waste Tris-Hydroxymethylaminamethane	Ignitable	D001
Waste Triton X-100/Toluene/MEOH	Ignitable	D001/F003/F005
Waste Triton X/Toluene	Ignitable	F005
Waste Triton-X/Toluene/MEOH	Ignitable	D001/F003/F005
Waste Trizma Base	Toxic	T
Waste Turpentine	Ignitable	D001
Waste Uracil Hemihydrate	Toxic	T
Waste Uranyl Acetate/Lead Citrate/Glutaraldehyde	Toxic	D004
Waste Uranyl Acetate/Mercuric Chloride/Xylene/Acetone	Ignitable/Toxic	D001/F003/D009
Waste Urea (carbamide)	Toxic	T
Waste Urea Nitrogen Reagent	Toxic	T
Waste Vanadium Tetrachloride	Corrosive	D002
Waste Vapan	Toxic	T
Waste Vaponite (Pesticide)	Toxic	T
Waste Varsol	Toxic	T
Waste Vernam 6E (Herbicide)	Toxic	T
Waste Vinyl pyrrolidinone	Toxic	T
Waste Vorschit carcinogen	Toxic	T
Waste Wastewater Sludge (Tar Sand)	Toxic	T
Waste Weedar 64 (Broadleaf Herbicidel	Toxic	T
Waste X-Ray Developer	Corrosive	D002
Waste X-Ray Fixer	Corrosive/Toxic	D002/D011
Waste Xylene	Ignitable	U239
Waste Xylene/Acetic Acid/Methanol	Ignitable/Corrosive	D001/D002/F003
Waste Xylene/Acetone/Isopropanol	Ignitable	D001/F003
Waste Xylene/Acid Alcohol	Ignitable/Corrosive	D002/F003
Waste Xylene/Alcohol	Ignitable	D001/F003
Waste Xylene/Alcohol/Formalin .	Ignitable	D001/F003
Waste Xylene/Bouin's Solution/Ethanol/Isopropanol	Ignitable	D001/F003
Waste Xylene/Formaldehyde	Ignitable	D001/F003
Waste Xylene/Kerosene	Ignitable	D001/F003
Waste Xylene/Toluene	Ignitable	D001/F003/F005
Waste Zectran 2£	Toxic	T
Waste Zinc Amalgam	Toxic	T
Waste Zinc Chloride(Solid)	Toxic	T
Waste Zinc Chromate	Ignitable/Toxic	D001
Waste Zinc Sulfate	Toxic	T
Waste Zinc/Lead/Cadmium	Toxic	D006/D008

BURIED WASTES MAY BE PRESENT IN BURIAL CELL AREAS A OR B
LETTER WASTE CODES INDICATE WASTE ITEM IS DEEMED HAZARDOUS BASED ON CHARACTERISTIC ONLY
C = CORROSIVE, I = IGNITABLE, R = REACTIVE, T = TOXIC

Waste a-Napthyl Isocyanate	Toxic	T
Waste b-Hydroxybutyric Acid	Corrosive	D002
Waste n-Cycloberyl-beta-aniline	Ignitable	D002
Waste o-ToluidineiAcetic Acid	Corrosive/Toxic	D002
Waste p-Nitrobenzaldebyde	Toxic	T

BURIED WASTES MAY BE PRESENT IN BURIAL CELL AREAS A OR B
LETTER WASTE CODES INDICATE WASTE ITEM IS DEEMED HAZARDOUS BASED ON CHARACTERISTIC ONLY
C = CORROSIVE, I = IGNITABLE, R = REACTIVE, T = TOXIC

April 27, 2012
Revision Draft

APPENDIX G-6

SUMMARY OF SOIL DATA

APPENDIX G-6 (Application APPENDIX J)

ANALYTICAL DATA FOR SOIL

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Table J-1
Summary of Soil Data from EEC 1989 Subsurface Soil Sampling
Page-Trowbridge Ranch Landfill, Pinal County, Arizona

Location and Sample Id	Sampling Location	Sampling Depth Interval (fbgs)	Chloroform (mg/Kg)	Toluene (mg/Kg)	Carbon Tetrachloride (mg/Kg)	1,1-DCE (mg/Kg)	Cis 1,2-DCE (mg/Kg)	Methylene Chloride (mg/Kg)
Unit A								
C1/ C40(dup)	Unit A West perimeter	15	**0.058/** < 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
		25	< 0.0005	< 0.017	**0.05/** <0.0012	<0.0013	**0.008/** ND	<0.0025
		35	< 0.0005	< 0.017	**0.066/ 0.033**	<0.0013/ **0.012**	**0.011/** ND	**0.016/ 0.022**
C2	Unit A North perimeter	15	**0.011**	< 0.017	<0.0012	<0.0013	ND	<0.0025
		25	< 0.0005	< 0.017	<0.0012	**0.02**	ND	**0.008**
		35	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C3/ C50 (dup)	Unit A East perimeter	15	**0.003/** <0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C 10	Unit A SW 100 feet	15	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C 11	Unit A West 100 feet	15	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
Unit B								
C4	Unit B NW perimeter	15	**0.04**	**0.03**	<0.0012	<0.0013	ND	<0.0025
C5	Unit B North perimeter	15	**0.003**	< 0.017	<0.0012	<0.0013	ND	<0.0025
		25	<0.0005	< 0.017	**0.018**	<0.0013	**0.012**	<0.0025
		35	<0.0005	< 0.017	**0.001**	<0.0013	**0.007**	<0.0025
C6	Unit B East perimeter	15	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C7	Unit B South perimeter	15	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C8	Unit B SW perimeter	15	**0.025**	< 0.017	<0.0012	<0.0013	ND	<0.0025
		25	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
		35	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C9/ C30 (dup)	Unit B W perimeter	15	**0.08/ 0.02**	< 0.017	<0.0012	<0.0013	ND	<0.0025
C12	Unit B NE corner perimeter	15	**0.003**	< 0.017	<0.0012	<0.0013	ND	<0.0025
C13	Unit B NE corner 100 feet	15	< 0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
C14	Unit B SW 100 feet	15	**0.01**	< 0.017	<0.0012	<0.0013	ND	<0.0025
Background Sample		15	<0.0005	< 0.017	<0.0012	<0.0013	ND	<0.0025
R-SRL			**0.94**	**650**	**0.25**	**120**	**43**	**9.3**

Analytical detection limits were provide in ECC Table 3 (ECC, 1989). Values could not be verified in laboratory analytical reports presented as ECC Appendix B (ECC, 1989). No value was provided for cis-1,2-DCE but reported as Not Detected (ND).
R-SRL = Residential Soil Remediation Level (A.A.C. Title 18, Chapter 7, Article 2)

Note: Reproduced from Table 1 in AMEC, 2009, Human Health Risk Assessment

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Table J-1 (continued)
Summary of Soil Data from ECC 1989 Subsurface Soil Investigation
Page-Trowbridge Ranch Landfill, Pinal County, Arizona

Landfill Unit	Unit A perimeter				Unit A 100 ft		Unit B Perimeter							Unit B 100 ft			Back-ground Sample	Detection Limit	R-SRL (mg/Kg)
Soil Sample Id	C1	C2	C3	C50 (C3 Dup)	C 10	C 11	C4	C 5	C 6	C 7	C 8	C 9	C30 (C9 Dup)	C 12	C 13	C 14			
Sample depth interval (fbgs)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15		
Analyte (1)																			
Arsenic	0.011	0.012	0.006	0.009	0.012	0.019	0.007	0.007	0.005	0.007	0.006	0.012	0.015	0.026	0.012	0.007	0.007	0.005	10
Barium	1.15	0.936	1.65	1.19	1.54	1.05	1.89	0.954	0.642	1.83	0.586	0.093	0.551	0.712	0.654	0.929	0.629	0.06	15,000
Cadmium	0.013	0.015	0.017			0.007		0.008	0.007	0.011	0.033		0.007	0.007		0.011		0.007	39
Chromium	0.118	0.151	0.077		0.044	0.084	0.124		0.061	0.098	0.122	0.046	0.115			0.09		0.027	30
Lead	0.201	0.277	0.113						0.091	0.235	0.366		0.151			0.277		0.08	400

Notes
(1) Represents analytes that were detected in at least one soil sample analyzed. Concentration units are in mg/Kg
Blank cells indicate analyte not detected at concentration above laboratory reporting limit.
fbgs = feet below ground surface
ft = feet
R-SRL = Residential Soil Remediation Level (A.A.C. Title 18, Chapter 7, Article 2)

Note: Reproduced from Table 1 in AMEC, 2009, Human Health Risk Assessment

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Table J-2
Summary of Subsurface Soil Data from Weston 2003 (mg/Kg) (1)
Page-Trowbridge Ranch Landfill, Pinal County, Arizona

Soil Boring Location	Field Sample Identification	Sample Date	Soil Sampling Depth Interval (fbgs)	Tetrachloroethene (mg/kg)	Bis(2-ethylhexyl) phthalate (mg/kg)	Chloroform (mg/kg)
SB-1	SB-SS-001-011	8/5/2002	0-10	<0.050	<0.33	<0.050
	SB-SS-001-021	8/5/2002	10-20	<0.050	<0.33	<0.050
	SB-SS-001-031	8/5/2002	20-30	<0.050	<0.33	<0.050
	SB-SS-001-041	8/5/2002	30-40	<0.050	<0.33	<0.050
	SB-SS-001-051	8/5/2002	40-50	<0.050	<0.33	<0.050
	SB-SS-001-061	8/5/2002	50-60	<0.050	<0.33	<0.050
	SB-SS-001-071	8/5/2002	60-70	<0.050	<0.33	<0.050
	SB-SS-001-081	8/5/2002	70-80	<0.050	<0.33	<0.050
	SB-SS-001-091	8/6/2002	80-90	<0.050	<0.33	<0.050
	SB-SS-001-101	8/6/2002	90-100	<0.050	<0.33	0.27
	SB-SS-101-101 (du	8/6/2002	90-100	<0.050	<0.33	0.24
	SB-SS-001-111	8/6/2002	100-110	<0.050	<0.33	<0.050
	SB-SS-001-121	8/7/2002	110-120	<0.050	<0.33	<0.050
	SB-SS-001-131	8/7/2002	120-130	<0.050	<0.33	<0.050
	SB-SS-001-141	8/7/2002	130-140	<0.050	<0.33	0.12
	SB-SS-001-151	8/7/2002	140-150	<0.050	<0.33	<0.050
	SB-SS-101-161	8/7/2002	150-160	<0.050	0.50	<0.050
	SB-SS-001-171	8/8/2002	160-170	<0.050	3.90	<0.050
	SB-SS-001-191	8/8/2002	180-190	<0.050	0.80	<0.050
SB-2	SB-SS-002-011	8/12/2002	0-10	0.09	<0.33	<0.050
	SB-SS-002-021	8/12/2002	10-20	<0.050	<0.33	<0.050
	SB-SS-002-031	8/12/2002	20-30	<0.050	<0.33	<0.050
	SB-SS-002-041	8/12/2002	30-40	<0.050	<0.33	<0.050
	SB-SS-002-051	8/12/2002	40-50	<0.050	<0.33	<0.050
	SB-SS-002-061	8/12/2002	50-60	<0.050	<0.33	<0.050
	SB-SS-002-071	8/12/2002	60-70	<0.050	<0.33	<0.050
	SB-SS-002-081	8/13/2002	70-80	<0.050	<0.33	<0.050
	SB-SS-002-091	8/13/2002	80-90	<0.050	<0.33	<0.050
	SB-SS-002-101	8/613/2002	90-100	<0.050	<0.33	0.09
	SB-SS-002-111	8/13/2002	100-110	<0.050	<0.33	<0.050
	SB-SS-002-121	8/13/2002	110-120	<0.050	<0.33	<0.050
	SB-SS-002-131	8/13/2002	120-130	<0.050	<0.91	<0.050
	SB-SS-002-141	8/13/2002	130-140	<0.050	<0.33	0.25
	SB-SS-002-151	8/14/2002	140-150	<0.050	<0.33	<0.050
	SB-SS-002-161	8/14/2002	150-160	<0.050	<0.33	<0.050
	SB-SS-002-171	8/14/2002	160-170	<0.050	<0.33	<0.050
	SB-SS-002-181	8/14/2002	170-180	<0.050	<0.33	<0.050
	SB-SS-002-191	8/14/2002	180-190	<0.050	<0.33	<0.050
	SB-SS-002-201	8/14/2002	190-200	<0.050	<0.33	<0.050
SB-3	SB-SS-003-011	8/6/2002	0-10	<0.050	<0.33	<0.050
	SB-SS-003-021	8/6/2002	10-20	<0.050	<0.33	<0.050
	SB-SS-003-031	8/6/2002	20-30	<0.050	NA	0.06
	SB-SS-003-041	8/6/2002	30-40	<0.050	<0.33	<0.050
	SB-SS-003-051	8/9/2002	40-50	<0.050	<0.33	<0.050
	SB-SS-003-061	8/9/2002	50-60	<0.050	<0.33	<0.050
	SB-SS-003-071	8/9/2002	60-70	NA	NA	NA
	SB-SS-003-081	8/9/2002	70-80	<0.050	NA	0.07
	SB-SS-003-091	8/9/2002	80-90	<0.050	<0.33	<0.050
	SB-SS-003-101	8/9/2002	90-100	<0.050	<0.33	<0.050
	SB-SS-003-111	8/9/2002	100-110	<0.050	<0.33	<0.050
SB-4	SB-SS-004-121	8/15/2002	110-120	<0.050	<0.33	<0.050
	SB-SS-004-131	8/15/2002	120-130	<0.050	<0.33	<0.050
	SB-SS-004-141[4]	8/15/2002	130-140	<0.050	<0.33	<0.050
	SB-SS-004-151	8/15/2002	140-150	<0.050	<0.33	<0.050
	SB-SS-004-161	8/15/2002	150-160	<0.050	<0.33	<0.050
	SB-SS-004-171	8/16/2002	160-170	NA	NA	NA
	SB-SS-004-181	8/16/2002	170-180	<0.050	<0.33	<0.050
	SB-SS-004-191	8/16/2002	180-190	NA	NA	NA
	SB-SS-004-201	8/16/2002	190-200	<0.050	<0.33	<0.050
		Risk - Based Criteria	**Residential SRL**	**5.1**	**390**	**9.4**
			Non-Residential SRL	**13 [2]**	**1200 mg/kg [2]**	**20 [2]**
			Migration to Groundwater	**GPL = 1.3 [3]**	**NA**	**NA**

From Table 5 in Weston 2003. *Technical Memorandum Interim Measures Task 1 Soil and Soil Gas Sampling Investigation*

[1] Table presents soil samples with contaminants detected above the practical quantitation limit only. Appendix C in Weston 2003 contains all analytical laboratory data.

"<" indicates contaminant not detected above the practical quantitation limit.

[2] Soil Remediation Level for Non-Residential Soils, Arizona Administrative Code, Title 18, Chapter 7.

[3] Minimum Groundwater Protection Limit

[4] Assumed this sample is represents sample from SB-3/SB-4 from 140 fbgs (see Appendix B)

NA = Not available

Note: Reproduced from Table 2 in AMEC, 2009, Human Health Risk Assessment

April 27, 2012
Revision Draft

APPENDIX G-7

DEVELOPMENT OF OPERATIONAL PARAMETERS FOR SVE SYSTEMS

APPENDIX G-7 (Application APPENDIX L)

DEVELOPMENT OF OPERATIONAL PARAMETERS FOR SVE SYSTEM

Development of Operational Parameters for SVE System

Page-Trowbridge Ranch Landfill

Pinal County, Arizona

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Revised April 20, 2012

Project No. 1420112012

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ATTACHMENT

1	Groundwater Protection Level (GPL) Calculations

DEVELOPMENT OF OPERATIONAL PARAMETERS FOR SVE SYSTEM

Page-Trowbridge Ranch Landfill
Pinal County, Arizona

1.0 INTRODUCTION

AMEC Environment & Infrastructure (AMEC) prepared this document for the University of Arizona (UA) in regard to the Resource Conservation and Recovery Act (RCRA) Part B permit application for the Page-Trowbridge Ranch Landfill (Landfill). The purpose of this document is to present the methodology and results of developing operational parameters for the existing soil vapor extraction (SVE) system at the Landfill. The operational parameters for the SVE system are incorporated into the Expanded Groundwater Detection Monitoring Plan for the Landfill and the Operation and Maintenance Manual for the SVE system (O&M Manual).

2.0 BACKGROUND

The existing SVE system, consisting of two SVE wells (SGS-Well and SGD-Well) and an activated carbon vapor treatment system, was installed at the Landfill in June 2006 as an interim measure. Typically, soil vapor is extracted from well SGS-Well, while air is injected at well SGD-Well. The SVE system is powered by solar panels, and therefore operates for an average of 10 hours each day throughout a year. Details of the SVE system are presented in the O&M Manual. The SVE system operated infrequently between June 2006 and November 2006, stopped operating in June 2007 due to mechanical problems, and resumed operation in November 2008 after repairs were made. Operating the SVE system is not required by the current RCRA permit issued by the Arizona Department of Environmental Quality (ADEQ) on November 6, 2001. ADEQ has requested that, during the permit renewal process, UA evaluate whether continued operation of the SVE system is necessary and if so, incorporate operational parameters in the RCRA permit renewal application.

On May 2, 2011, AMEC, on behalf of UA, submitted a memorandum to ADEQ to propose an approach to developing operational parameters for the SVE system, which consists of using an existing three-dimensional (3D) numerical vapor flow and transport model to assess SVE operational parameters. ADEQ provided their comments on the proposed approach via email on May 10, 2011. ADEQ agreed with the overall approach of using the numerical model to develop operational parameters, but expressed concerns that any changes to the model may result in conflicting conclusions from previous modeling work. A conference call was held between the Arizona State Risk Management (State Risk), UA, ADEQ, and AMEC on May 17, 2011 to discuss ADEQ's comments. On June 6, 2011, AMEC submitted to ADEQ a second memorandum that described the model validation results and provided a list of proposed predictive simulation runs. State Risk, UA, ADEQ, and AMEC

held a conference call on June 7, 2011 to review ADEQ's comments on the June 6 memorandum. ADEQ's comments on both memorandums were addressed to the extent possible in the modeling work. This report was first submitted with the RCRA permit application in July 2011. ADEQ provided comments on the submitted report in a letter dated November 10, 2011. University of Arizona and AMEC discussed these comments with ADEQ during a meeting on November 21, 2011. ADEQ provided additional comments in the Request for Additional Information dated April 12, 2012. These comments are addressed in this report to the extent possible.

3.0 NUMERICAL MODEL AND MODEL VALIDATION

3.1 NUMERICAL MODEL

Development and calibration of the existing 3D vapor flow and transport model is described in the Interim Measures Investigation Report (Hydro Geo Chem, Inc. [HGC], 2004). The 3D numerical model (HGC's model) was developed by HGC using the MODFLOW-SURFACT code (Hydrogeologic, 1996), which is a comprehensive, block-centered finite difference code based on the United States Geologic Survey modular groundwater flow code MODFLOW (McDonald and Harbaugh, 1988). MODFLOW-SURFACT offers a variety of enhanced simulation capabilities, including soil vapor flow and contaminant transport in vapor phase. The horizontal domain of the three-dimensional model covers a 3,000 acre area (12,000 ft by 12,000 ft) centered on the Landfill. The vertical domain covers the vadose zone between ground surface and water table. Trichlorofluoromethane (Freon-11) was used as indicator volatile organic compound (VOC) during calibration. This compound has the highest concentrations in soil vapor samples, and also has one of the highest Henry's Law constants among the VOCs detected in soil vapor. HGC calibrated their mode assuming that the vapor concentrations at the two landfill units, Units A and B, remained constant between 1968 and 2003.

Electronic files for the HGC's model were provided to AMEC by HGC (Tucson, Arizona) in the form of Groundwater Vistas (GWV) file, which is a commercial graphical user interface for MODFLOW family of models (Environmental Simulations, Inc., Reinholds, Pennsylvania). Groundwater Vistas (Version 5.43 Build 4) continues to be used as graphical user interface for this work. The GWV file for Simulation 7 in the Interim Measures Investigation Report (HGC, 2004) was used as the starting point for this work, because this scenario simulates one shallow extraction well and one deeper injection well, same as current SVE operation. As requested by ADEQ, no attempt was made to re-evaluate or re-calibrate HGC's model. Instead, HGC's model was validated to verify its ability to reasonably simulate vapor flow and VOC transport under advection-dominated conditions as a result of SVE operation. This is important because prior model calibration was based on analytical data collected under diffusion-dominated conditions prior to SVE operation. Following validation, the model is used to develop operational parameters for the SVE system through predictive simulations.

During model validation and predictive simulations, model domain, grid cell size, number of grid cells, number of layers, layer thickness, and flow and transport parameters remain the same as HGC's model. Table 1 presents the layer thickness and bottom elevation of each layer. Layer 1 is used to represent a constant head boundary at atmospheric pressure. The constant head boundary condition in layer 1 remains unchanged in model validation and predictive simulations. Layer 2 is used to prescribe concentration boundary conditions to represent sources of VOCs. The concentration boundary condition in layer 2 is varied in model validation and prediction simulations. Table 1 also presents the zone number for flow and transport parameters for each layer. Table 2 presents the hydraulic conductivity and corresponding intrinsic permeability values for each zone. Same as HGC's model, parameter value is assumed to be uniform within each layer. Instead of a fixed time step size, MODFLOW-SURFACT's automatic time-stepping (ATO) package is used to control time step size, which varies through simulation depending on how easy convergence is obtained.

HGC's model began with an initial concentration of zero everywhere in the subsurface, and simulated VOC diffusion through a 35-year period (between 1968 and 2003). The simulated concentrations at the end of HGC's model calibration (i.e. end of 2003) were used as the initial concentrations for model validation, which simulates 2004 through 2010. The simulated concentrations at the end of model validation (i.e. end of 2010) were used for predictive simulations.

Same as previous modeling effort, the models described in this report consider only the flow of vapor and contaminant transport in the vapor phase through advection and diffusion. Liquid flow and contaminant transport in the liquid phase are beyond the scope of the modeling work described in this report.

3.2 MODEL VALIDATION

Freon-11 continues to be used as indicator VOC in model validation. The following changes were made to HGC's model:

- The simulation period is set to between January 2004 and November 2010.
- Initial concentrations are set to simulated concentration distribution at the end of HGC's model calibration (December 2003). The initial concentrations for model validation are plotted in plan view (Figure 1A) and in cross-sections (Figure 1B).
- Wells SGS-Well and SGD-Well are represented using the MODFLOW-SURFACT WEL package; the WEL package for well SGS-Well is active in layers 7, 10, and 11, while the WEL package for well SGD-Well is active in layers 20 through 27. Although the screen interval of SGS-Well corresponds to layers 6 through 11, as shown in Table 1, layers 6, 8, and 9 are in silt unit, while layers 7, 10, and 11 are in sand unit. Because it is expected that extracted vapor mainly comes from the sand unit, extraction rate is distributed to layers 7, 10, and 11.

- Extraction and injection rates for each period are set to the average extraction and injection rates based on SVE operation records, by dividing cumulative volumes by elapsed time; therefore, the extraction and injection rates used in the model take into account that the SVE system only operates during a portion of a day. The extraction and injection rates are evenly distributed between layers where WEL package is active. The extraction and injection rates (in standard cubic feet per minute [scfm]) used in the model are presented in Table 3.

The validation targets are Freon-11 concentrations in soil vapor samples collected from soil vapor monitoring points as well as SVE system influent between December 2003 and November 2010. Most soil vapor samples were collected while the SVE system was operating. Because of the inherent variability in VOC measurements in soil vapor, attention is paid to whether the model can reproduce the magnitude and general trends of the observed data, rather than matching each data point. Similar approach has been used in other studies (Stauffer et al., 2007).

The only parameters that were adjusted during model validation are the constant concentration boundary conditions in layer 2. Horizontally, layer 2 is divided into three areas: footprint of Unit A, footprint of Unit B, and remaining area outside landfill footprint. In HGC's model, non-zero constant concentrations were specified for Unit A and Unit B through model calibration. During model validation, it is discovered that if the constant concentrations for Unit A and Unit B remain unchanged from HGC's model, the simulated concentrations at the monitoring points and in SVE influent poorly match the observed data, and are generally over-predicted (Figure 2). On the other hand, assigning a value of zero to source concentrations at Unit A and Unit B through the validation period leads to a better match to the validation targets (Figure 2). Assuming zero source concentrations in model validation also gives a better match to the amounts of Freon-11 removed from SGS-well based on SVE operation records, as presented in Table 4.

It should be noted that the use of constant source concentrations and zero source concentrations are both approximations for the process of VOC release from landfill waste. For example, constant source concentrations have been used by other modeling studies (e.g. Stauffer et al., 2007) to represent slow release of VOC vapor from waste. In reality, it is unlikely for the rate of VOC release to remain constant over decades or decrease to zero over a short period of time. Therefore, the need to adjust source concentrations to zero during model validation should be interpreted as suggesting that the rate of VOC release from waste is likely decreasing over time.

It is also noted that the match between simulated and observed concentrations at well SGD-DP are not as good as the other monitoring points. This is likely due to subsurface heterogeneity that is not captured by the model. As described in the HGC (2004), the model was constructed as a representative soil column from ground surface to water table. Subsurface conditions (e.g. water

content, porosity) in the vicinity of SGD-DP that differs from what is represented in the model likely contribute to such discrepancies between simulated and observed data.

In summary, the 3D numerical model is able to reasonably reproduce the behavior of VOC concentrations in vadose zone at various depths under advection-dominated condition as a result of SVE operation, requiring only adjustment to the source concentrations. Based on the model validation, the 3D model is considered appropriate to use for developing operational parameters for the SVE system.

HGC's model uses non-zero constant source concentrations for Unit A and Unit B to simulate the diffusion of Freon-11 from the landfill to the vadose zone over 35 years (1968 through 2003). The simulated concentrations at the end of HGC's model simulation (i.e. for December 2003) are used as initial concentrations for the validation model (2004 through 2010), which simulates the advective transport and diffusion of Freon-11 between 2004 and 2010. In the validation model, source concentrations are specified as zero in order to match the trends of observed data. The simulated concentrations at the end of model validation (i.e. end of 2010) are used as initial concentrations for predictive simulations. However, source concentrations are not specified as zero in predictive simulations.

It is recognized that due to advection flux of soil vapor, the simulated concentrations at the end of model validation are likely lower than vapor concentrations that would be in equilibrium with solid and liquid phases. If the SVE system were not operating at the end of the validation period, the vapor extraction and air injection would be deactivated in the validation model to allow the vapor concentrations to reach "equilibrium" with solid and liquid phases. However, since the SVE system has been operating until the end of validation period, the "equilibrium" vapor concentrations would not be appropriate to use as initial concentrations for predictive simulations, as they would not represent the actual subsurface conditions.

4.0 APPROACHES TO DEVELOPING SVE OPERATIONAL PARAMETERS

Based on discussions with ADEQ, because of the potential for existing VOCs in vadose zone soil vapor to migrate downward, the SVE system is expected to continue operating for the time being to control downward migration of VOCs in soil vapor. In addition, ADEQ would like to have some thresholds established such that additional actions can be implemented to assess whether groundwater is being protected. The operational parameters for the SVE system include:

- Minimum operation requirements, including
    - Minimum extraction/injection rates; and

- Maximum length of shutdown;

- Operation strategy; and
- Thresholds for implementing additional actions.

The model used for predictive simulations is identical to the validated 3D numerical model, except that the following parameters are adjusted to address each individual scenario.

- Simulation period
- Source locations and concentrations
- Extraction and injection rates

4.1 MINIMUM OPERATION REQUIREMENTS

The approach to developing the minimum operation requirements is to adjust operational parameters in the numerical model and assess the SVE system's effectiveness in (1) protecting groundwater quality and (2) detecting new releases in the landfill. Freon-11 continues to be used as indicator VOC in these predictive simulations.

4.1.1 EFFECTIVENESS IN PROTECTING GROUNDWATER QUALITY

To assess whether operating the SVE system at the minimum requirements is protective of groundwater quality, the simulated Freon-11 concentrations in soil vapor at a few virtual monitoring points above groundwater table are compared to a vapor concentration that is indicative of potential impact to groundwater quality. The virtual monitoring points are located at distances between 0 and approximately 1000 feet from the landfill units on all four directions (Figure 3). The virtual monitoring points are located in the bottom layer between 620 and 645 feet bgs. Therefore, simulated concentrations at the virtual monitoring points represent the average concentrations within 25 ft immediately above water table.

The Freon-11 vapor concentration used to assess protectiveness of groundwater is calculated based on the water quality standards for the COCs and their percentage mass in soil vapor used in the Preliminary Screening Risk Assessment (HGC, 2005), as presented in Table 5. Water quality standards include Arizona Water Quality Standards (AWQS) and State of California maximum contaminant levels (MCLs). Because Freon-11 does not have an AWQS, the California MCL of 150 µg/L is used. For each COC, for example chloroform, its water quality standard (100 µg/L) is first converted to a chloroform vapor concentration of 15 mg/m^3 using its Henry's law constant. The vapor concentration is then converted to a Freon-11 vapor concentration of 24 mg/m^3 based on percentage mass. This approach is considered conservative because it does not take into account dilution of VOCs in groundwater as a result of mixing in groundwater. In other words, even if pore water that

enters groundwater contains COCs at concentrations equal to their water quality standards, the concentrations in groundwater will likely be lower than water quality standards because the COCs would be diluted in the groundwater mixing zone.

As shown in Table 5, the lowest Freon-11 vapor concentration that corresponds to pore water concentrations of the COCs equal to their water quality standards is 24 mg/m^3. The simulated vapor concentrations at the virtual monitoring points from the predictive simulations are compared to this value to assess their effectiveness in protecting groundwater quality. This value of 24 mg/m^3 is conservatively low because the percentage mass of Freon-11 in deep vadose zone (e.g. SGD-DP) is around 90%, higher than the 53.8% used in Table 5. For example, using a percentage mass of 90% for Freon-11 and a percentage mass of 4% for chloroform, an aqueous phase chloroform concentration of 100 µg/L corresponds to a Freon-11 vapor concentration of 350 mg/m^3, instead of 24 mg/m^3. It should be stressed that the Freon-11 concentration of 24 mg/m^3 is for the purpose of comparing the effectiveness of simulated SVE operations, and should not be interpreted as a compliance limit.

4.1.2 EFFECTIVENESS IN DETECTING NEW RELEASES

To assess whether operating the SVE system at the minimum requirements will be effective in detecting new releases in the landfill, a remote release is simulated by assigning a constant concentration boundary condition to one model cell in the southwestern corner of Unit B. This location is selected because it is furthest away from the extraction well SGS-Well. The simulated remote release is located in Unit B because:

- Waste disposal at Unit B commenced earlier than Unit A (late 1960s versus 1982).
- Unit A is lined and received containerized waste only, whereas Unit B is mostly unlined and had received direct disposal of waste.

Freon-11 continues to be used as the indicator COC. In order to simulate a release that potentially impact groundwater quality, the source concentration is set at 5,188,000 mg/m^3, which corresponds to Freon-11's saturated vapor concentration. The simulated concentrations at the end of model validation are used as initial concentrations. The simulation is run for 100 years. The following simulation outputs are obtained for 10, 25, 50, and 100 years after release commences:

- Concentrations at each monitoring point;
- Concentrations at SGS-Well to represent SVE influent; and
- Highest concentration in each layer.

These concentrations are plotted against time. Because using Freon-11's saturated vapor concentration as source concentration invalidates the percentage mass assumption, the indicator

concentration of 24 mg/m^3, as described in Section 4.1.1, is no longer appropriate. Instead, the equilibrium soil vapor concentration to Freon-11's water quality standard (as in Table 5), 596 mg/m^3, is used as the indicator for groundwater quality impact. If concentration signals are detected at the monitoring points or in the SVE influent much sooner than the concentration in the bottom layer (i.e. within 25 ft of water table) approach a concentration of 596 mg/m^3, operating the SVE system at the minimum requirements is deemed effective in detecting new releases.

It should be noted that the intent of this simulation is not to evaluate under what scenarios groundwater quality may be impacted or to develop mitigation measures. Rather, the purpose is to assess when the SVE system is operating at the minimum requirements, whether the existing soil vapor monitoring points and SVE influent will be able to detect a release at a remote location before impact to groundwater quality occurs. Although the simulated scenario may result in potential impact to groundwater quality, the simulated release represents an extreme condition that is not likely to be encountered in reality.

4.2 OPERATION STRATEGY

As the SVE system is designed, well SGD-Well can be used as either an air injection well or a vapor extraction well, while well SGS-Well can only be used as a vapor extraction well. The SVE system has two operation modes: extraction-injection mode where soil vapor is extracted at SGS-Well and air is injected at SGD-Well, and extraction-extraction mode where both wells are used for vapor extraction. Currently, extraction-injection mode is the long-term operation strategy for the SVE system. Minimum operation requirements have been developed for the extraction-injection mode, as described in Section 4.1. It needs to be determined whether extraction-extraction mode is a viable long-term operation strategy, and if so, what the minimum operation requirements are.

The same simulation for assessing effectiveness of detecting remote releases (Section 4.1.2) is performed, except that SGD-Well is used for vapor extraction, instead of air injection, at the same rate as the minimum operation requirements. The same simulation outputs are obtained, including:

- Concentrations at each monitoring point;
- Concentrations at SGS-Well and SGD-Well; and
- Highest concentration in each layer.

The highest concentrations in each layer are plotted against depth over time to provide indications of how fast VOCs migrate toward groundwater. The highest concentrations in the bottom layer (within 25 ft of water table) are also plotted over time. These plots are compared with similar plots for the extraction-injection mode. If the extraction-extraction mode will result in slower migration of VOCs toward groundwater or lower concentrations above water table, it will be considered a viable long-term operation strategy.

4.3 THRESHOLDS FOR IMPLEMENTING ADDITIONAL ACTIONS.

The intended function of thresholds for additional actions is to initiate actions to investigate whether groundwater quality may be impacted, and, if necessary, to implement further actions to prevent such impact. Therefore, thresholds are developed based on scenarios of substantial releases that may potentially impact groundwater quality. Thresholds are constituent-specific and monitoring point-specific. Numeric threshold values are developed for the seven COCs listed in Table 5 at each monitoring point and in SVE influent. Predictive simulations are used to develop thresholds for all locations except SGD-DP. Because model validation results (Figure 2) suggest that the model under-predicts concentrations at SGD-DP, the model cannot be relied upon to develop thresholds for SGD-DP. Instead, the thresholds for SGD-MP, which is at an adjacent location and at a shallower depth than SGD-DP, are used for SGD-DP. Because SGD-DP is located at a deeper depth than the other monitoring points, COCs that reach SGD-DP from the landfill would have left concentration signals at the shallower monitoring points and in the SVE influent. Therefore, it is expected that decisions on implementing additional actions will be primarily based on whether thresholds at shallower monitoring points and in the SVE influent are exceeded; therefore, setting thresholds at SGD-DP the same as SGD-MP will not compromise their intended function. In addition, soil vapor samples are collected from groundwater monitoring wells MW-2 and MW-5, which are screened across water table. The thresholds at MW-2 and MW-5 are set at soil vapor concentrations in equilibrium to their water quality standards.

The approach to predictive simulations is to assign constant concentration boundary to Unit B to simulate a source and use simulated concentration signals at the monitoring points as the thresholds. Concentration signals at a monitoring point depend on source strength (e.g. the lower the source concentration is, the weaker the signal is), source area (e.g. the smaller the source area is, the weaker the signal is), as well as source location (e.g. the further away the source is, the weaker the signal is). The source concentrations are assigned in order to simulate substantial release scenarios that the thresholds are intended to address. The constant concentration at source is set at equilibrium vapor concentrations either with groundwater protection level (GPL) or, when calculated GPL is higher than soil saturation limit, with soil saturation limit. GPLs are calculated following ADEQ's guidance document (ADEQ, 1996). The chemical properties used in GPL calculations and the calculated GPLs are presented in Table 6. The default inputs in ADEQ's GPL workbook are used, except depth of incorporation, depth to groundwater, and chemical properties for Freon-11, which are not in the GPL workbook. The GPL calculations are included in Attachment 1. The calculated GPLs are higher than soil saturation limits for all the COCs except methylene chloride. The constant source concentration is set as the equilibrium vapor concentration with the lesser values between GPL and soil saturation limit.

The source area and location are assigned in order to capture substantial release scenarios. If constant concentration boundary is assigned to the whole footprint of Unit B, all the monitoring points will likely see strong concentration signals. However, it would not address the scenarios where the source is distant from some monitoring points. Therefore, Unit B is divided into six portions (Figure 11A) labeled southwest (SW), northeast (NE), southwest (SE), northwest (NW), middle-south (S), and middle-north (N). Constant concentration boundary condition is assigned to one individual portion at a time to obtain concentration signals in response to smaller source areas at various locations. Because simulation results suggest that the assigned source concentrations over one sixth of the footprint do not result in potential groundwater quality impact when thresholds at monitoring points are reached (Section 5.6), assigning the same source concentrations over smaller footprint is not expected to lead to groundwater quality impact. Therefore, Unit B is not divided into smaller portions for threshold development.

For Freon-11, the simulated concentrations at the end of model validation are used as initial concentrations. For the other COCs, because simulated concentrations are not available from model validation, their initial concentrations are assigned at zero across the model domain. The COC's properties (soil distribution coefficient, Henry's law constant, and solubility), as in Table 6, are used in the model.

5.0 PREDICTIVE SIMULATION RESULTS

5.1 MINIMUM RATES OF SOIL VAPOR EXTRACTION AND AIR INJECTION

The simulations are run for a period of 100 years, using the end concentration distribution from the validated model as initial concentration. The same constant source concentrations as in HGC's model are assigned to simulate an ongoing release at historical levels. The following three sets of extraction and injection rates are evaluated.

A. Extraction rate of 37 scfm and injection rate of 15 scfm, respectively, which are the average flow rates between February and July 2009.

B. Extraction rate of 18.5 and injection rate of 7.5 scfm, respectively, which are 50% of the average flow rates between February and July 2009.

C. Extraction rate of 9.25 and injection rate of 3.75 scfm, respectively, which are 25% of the average flow rates between February and July 2009.

Scenario A corresponds to the current operation where the SVE system operates for 10 hours each day throughout a year, whereas Scenarios B and C correspond to operating for 5 hours and 2.5 hours each day throughout a year, respectively.

The simulated concentrations at the virtual monitoring points above groundwater table, as shown on Figure 4, are all well below the concentration of 24 mg/m^3 calculated in Section 4.1. Because of the air injection at SGD-Well, concentrations at virtual monitoring points closer to the landfill (hence closer to the injection well) may be lower than virtual monitoring points further from the landfill. For example, simulated concentrations at MWS-1, which is closer to the air injection well than MWS-2, are lower than those at MWS-2, even though MWS-1 is closer to the landfill than MWS-2. This is because the simulated concentrations at MWS-1 are affected to a greater extent by the injected air than MWS-2.

The difference in simulated concentrations between using Scenario C and Scenario A is less than 3.5 mg/m^3, indicating that using extraction/injection rates of 9.25 and 3.75 scfm is as protective of groundwater quality as using flow rates of 37 and 15 scfm. Figures 5A and 5B illustrate the simulated pressure responses, as a percentage of the vacuum at the extraction well (for shallow vadose zone) or as a percentage of the pressure at the injection well (for deep vadose zone), around Unit A and Unit B using flow rates of 9.25 and 3.75 scfm (i.e. 25% of the average flow rates between February and July 2009). These results indicate that soil vapor extraction using flow rates of 9.25 and 3.75 scfm will create pressure responses around both landfill units.

Therefore, the extraction/injection rates of 9.25 and 3.75 scfm are proposed as the minimum rate requirements. It should be noted that operating the SVE system at higher extraction/injection rates than these minimum requirements would have the benefits of detecting new releases sooner, if a new release occurs. The above simulations assume that the extraction and injection wells operate at the minimum rates each day. Section 5.2 evaluates how long a shutdown can be allowed while maintaining the minimum extraction/injection rates.

5.2 MAXIMUM LENGTH OF SHUTDOWN

Various combinations of shutdown and operation periods, such as “three months off, one month on” and “nine months off, three months on”, are experimented to identify the maximum length of shutdown within a twelve-month period. The extraction/injection rates in the “on” months are set at 37 and 15 scfm, respectively, so that the twelve-month averages are equal to the minimum rates identified above. The simulations are run for a period of 100 years, using the end concentration distribution from the validation model as initial concentration. The constant source concentrations in HGC’s model are assigned to the two landfill units to simulate an ongoing release at historical levels.

The simulated results for the “nine months off, three months on” scenario are shown in Figure 6 and compared to Scenario C described in Section 5.1. Within each twelve-month period, the extraction and injection rates are set to zero for nine months, followed by being set at 37 and 15 scfm for three months. The results show that running the SVE system for at least three months during a twelve-

month period will keep the vapor concentrations above groundwater table at the same levels as running the SVE system at 9.25 and 3.75 scfm without shutdowns.

Therefore, the minimum operation requirements are for the SVE system to operate for a minimum of three months within a twelve-month period, with annual average extraction and injection rates (total extraction/injection volume divided by total elapsed time) at or above 9.2 and 3.75 scfm, respectively.

5.3 UNCERTAINTY ANALYSIS

The simulations described above assume that the source concentrations are the same as the calibrated source concentrations. This is considered a reasonable assumption, given that the rate of VOC release from the Landfill appears to be decreasing based on model validation (Section 3). Nevertheless, to address the inherent uncertainty in the rate of VOC release in the future, simulations described in Sections 5.1 and 5.2 are repeated with the assumption that the source concentrations are twice the calibrated source concentrations, which simulates a greater VOC release.

The simulated concentration plots for these two cases are shown in Figure 7 and 8, respectively. The two lines in each plot start at the same initial values, even though source concentrations are different. This is because the starting values are determined by the prescribed initial concentrations just above water table, and are not affected by the assumed source concentrations near ground surface. Doubling the source concentrations results in little change in the simulated vapor concentrations above groundwater table. Therefore, the conclusions from Sections 5.1 and 5.2 remain unchanged. Overall, the predictive simulations described in Sections 5.1, 5.2, and 5.3 are considered conservative for the following reasons:

- Source concentrations are assumed to remain constant in the future, whereas the rate of VOC release is expected to decrease over as the finite amount of VOCs is gradually depleted.
- It is assumed that no degradation of VOCs in the vadose zone occurs, whereas VOCs may undergo chemical or microbial degradation.
- The Freon-11 vapor concentration of 24 mg/m^3 as indication of impact to groundwater quality does not account for dilution in the groundwater mixing zone, which would reduce VOC concentrations in groundwater.

5.4 EFFECTIVENESS IN DETECTING REMOTE RELEASES

The simulation is run for a period of 100 years, using the end concentration distribution from the validation model as initial concentration. The source concentration at the remote release location is set at 5,188,000 mg/m^3, which corresponds to Freon-11's saturated vapor concentration. The extraction/injection rates alternate between 0 scfm for nine months and 37 scfm (extraction) and 15 scfm (injection) for three months, which are the minimum operation requirements.

The simulation results are shown in Figure 9. These results suggest that: (1) for potential impact to groundwater quality to occur, source concentrations in the landfill need to be at elevated levels that are sustained over long period of time (e.g. longer than 10 to 20 years); and (2) all existing monitoring points and the SVE influent will detect a sharp increase in soil vapor concentrations at least 10 years before potential impact to groundwater quality may occur. Therefore, these results suggest that the existing monitoring points and SVE influent can be used to monitor release at a remote location within the landfill.

5.5 OPERATION STRATEGY

The simulations are set up the same way as above, except that both SGS-Well and SGD-Well are extraction wells, with extraction rates alternating between 0 for nine months and 37 scfm (SGS-Well) and 15 scfm (SGD-Well) for three months.

The results are shown on Figure 10. Comparison of simulated concentrations in Figures 9 and 10 suggests that the vacuum created by operating SGD-Well in extraction mode will result in faster downward migration of VOCs in the shallow vadose zone toward the water table, and will likely speed up impact to groundwater quality, instead of slowing or preventing such impacts. Therefore, operating both SGS-Well and SGD-Well in extraction mode is not a viable long-term operation strategy. The operation strategy section in the O&M Manual has been revised accordingly. However, operating SGD-Well may be useful on a short-term basis under certain conditions. Such decisions will need to be made on a case-by-case basis.

5.6 THRESHOLDS FOR IMPLEMENTING ADDITIONAL ACTIONS

Simulations are performed for each of the seven COCs listed in Table 5. The simulations are run for 100 years. Initial concentrations and specified source concentrations are explained in Section 4.3. The extraction/injection rates alternate between 0 scfm for nine months and 37 scfm (extraction) and 15 scfm (injection) for three months, which are the minimum operation requirements.

Simulated concentrations at monitoring points (except SGD-DP) and in SVE influent are obtained from model outputs. For each COC, simulated concentrations at a monitoring point from multiple simulations are plotted over time on the same graph. Figures 11A and 11B show the results for Freon-11. The graph for each monitoring point contains six curves, each of which represents the source being located in a different portion of Unit B (e.g. NW, SE, SW, NE, S, and N). These graphs suggest that (1) the concentration responses to release at a monitoring point vary with location of the source; (2) concentrations at monitoring point have a sharp rise and reach a plateau in about 20 years. The weakest response, as indicated by the lowest plot in a graph, is of interest for threshold development because it represents the least obvious signal at a monitoring point. Therefore, the thresholds should be established based on the lowest plateau concentration. Because substantial release needs to be detected earlier than when the concentrations at monitoring points reach plateau, the threshold should

be lower than plateau concentration. It is proposed to use 10% of the lowest plateau concentration as threshold. As shown in Figures 11A and 11B, the thresholds are typically detected within the first five to 10 years of release. Operating the SVE system beyond the minimum requirements would reduce the time for the thresholds to be detected at the monitoring points, if substantial releases occur.

Figures 11A and 11B suggest that the weakest responses occur at SGS-Well and SGS-SP when the source is in the southwest corner, and weakest responses occur at SGD-SP and SGD-MP when the source is in the northeast corner. Therefore, for the other COCs, simulations are only performed with sources in the southwest (SW) and northeast (NEW) portions of Unit B. The COC's properties (soil distribution coefficient, Henry's law constant, and solubility), as in Table 6, are used in the model. Hence, the proposed thresholds for SGS-Well and SGS-SP are 10% of the plateau concentrations with the source in the southwest portion; the proposed thresholds for SGD-SP and SGD-MP are 10% of the plateau concentrations with the source in the northeast portion. The simulated concentrations at the monitoring points for the other COCs are presented in Figures 12 through 17. The proposed thresholds are presented in Table 7. Simulation results suggest that when the thresholds are reached, the simulated concentrations at the water table are below the levels that potentially impact groundwater quality.

Detecting concentrations at monitoring points or in the SVE influent above their threshold levels does not necessarily indicate that an impact to groundwater quality is imminent or that saturated vapor concentrations are present in the landfill units. The intent of the additional actions is to collect more data to assess whether groundwater is still being protected. . When the concentrations of one of these VOCs exceed their thresholds and a statistically significant upward trend (using the Mann-Kendall test or equivalent method) is present, UA will take the following actions:

- Immediately contact the analytical laboratory to confirm the results and perform data quality control review and validation.
- Within one week of verifying the analytical results, inspect the system and verify that the system operation has been meeting the minimum operation requirements.
- If there have been no system upsets and the system has been operating normally, perform monthly sampling at all soil vapor monitoring points for three consecutive months.
- If data from the three monthly sampling events confirm the exceedance of thresholds and the upward trend, UA will consult with ADEQ about further actions and submit a Response Action Plan within approximately three months. These further actions may include:
    a. Change SVE operation such that the SVE system at higher extraction/injection rates.
    b. Enhancement or modification of the existing SVE system to allow vapor extraction from additional locations or vertical zones;

c. Perform shallow soil gas survey to investigate locations of potential release.

d. Install additional soil vapor monitoring or extraction/injection well.

6.0 OPERATIONAL PARAMETERS FOR SVE SYSTEM

Based on the simulation work described in Section 5, the operational parameters for the SVE system are summarized below.

- The SVE system shall operate for a minimum of three months within a twelve-month period. Annual average extraction and injection rates (total extraction/injection volume divided by total elapsed time) shall be or above 9.2 and 3.75 scfm, respectively. The SVE system may be operated in a pulsed mode.
- Operating the SVE system in extraction-extraction mode is not a viable long-term operation strategy. Extraction-extraction mode may be considered for short-term operation under certain conditions. Such decisions need to be made on a case-by-case basis.
- When detected concentrations for VOCs exceed the thresholds in Table 7 and a statistically significant upward trend is present, the proposed additional actions shall be initiated. When the SVE system is in pulsed operation, sufficient time shall be allowed for the vadose zone to return to equilibrium before SVE influent sampling results are compared to the thresholds.

UA intend to operate the SVE system to meet or exceed the operational parameters described above.

7.0 LIMITATIONS

This report has been prepared by AMEC for the exclusive use of the University of Arizona as it pertains to the above-mentioned property. It has not been prepared for use by other parties. AMEC's professional services were performed using the degree of care and skill ordinarily exercised under similar circumstances by other engineers, geologists, and scientists practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report. Any use of, or reliance on, this report by a third party shall be at such party's sole risk.

The conclusions and recommendations in this report are based on information provided to AMEC by the University of Arizona. Such information includes data collected by others and a numerical model developed and calibrated by others, which forms the basis of the simulation work described in this report. Therefore, our conclusions and recommendations may be subject to reassessment and modification, if warranted, as additional information becomes available.

8.0 REFERENCES

Arizona Department of Environmental Quality (ADEQ), 1996, A Screening Method to Determine Soil Concentrations Protective of Groundwater Quality, September.

Hydro Geo Chem (HGC), 2004, Interim Measures Investigation Report, June 8.

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TABLES

Table 1
Layering of Numerical Model
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Model Layer Number	Layer Bottom Elevation (ft amsl)	Layer Thickness (ft)	Stratigraphic Unit	Parameter Zone Number
1	3631	1	Ground Surface	1
2	3630	1	Upper Silt	1
3	3605	25		1
4	3580	25		1
5	3555	25		1
6	3530	25		1
7	3505	25	Upper Sand	2
8	3482	23	Middle Silt	1
9	3459	23		1
10	3437	22	Middle Sand	1
11	3414	23		2
12	3387	27	Lower Silt	2
13	3362	25		3
14	3337	25		3
15	3312	25		3
16	3287	25		3
17	3262	25		3
18	3237	25		3
19	3212	25		3
20	3187	25		3
21	3161	26	Lower Sand	4
22	3136	25		4
23	3111	25		4
24	3086	25		4
25	3061	25		4
26	3036	25		4
27	3011	25		4
28	2986	25		4

Notets:
Reproduced from Hydro Geo Chem (HGC), 2004, Interim Measures Investigation Report, June 8.
ft = feet
ft amsl = feet above mean sea level

Table 2
Permeability Values in Numerical Model
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Parameter Zone Number	Horizontal Hydraulic Conductivity (ft/day)	Vertical Hydraulic Conductivity (ft/day)	Intrinsic Horizontal Permeability (darcies)	Intrinsic Vertical Permeability (darcies)
1	382	38.2	137	14
2	200	7.36	72	3
3	58.5	5.85	21	2
4	4.09	3.9	1	1

Notes:
Intrinsic permeability is related to hydraulic conductivity by the following equation:

$$k = \frac{K \times \mu}{\rho \times g}$$

k = intrinsinc permeability
K = hydraulic conductivity
μ = dynamic viscosity of water
ρ = density of water
g = gravitational acceleration

ft = feet
darcies = 10^{-12} m^2

Table 3
Extraction and Injection Rates in Validation Model
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Validation Period	Extraction Rate at SGS-Well (scfm)	Injection Rate at SGD-Well (scfm)
12/30/2003 to 11/17/2008[a]	0	0
11/18/2008 to 1/7/2009[b]	29	11
1/8/2009 to 2/2/2009	0	0
2/2/2009 to 7/9/2009[b]	37	15
7/10/2009 to 10/14/2009	0	0
10/15/2009 to 11/2/2010[c,d]	37	15

Notes:

a. SVE operated infrequently between June 2006 and April 2007; assume rate of zero.
b. Extraction and injection rates were calculated from operation records (HGC, 2009a; HGC, 2009b) by dividing cumulative volume by elapsed time.
c. Exact restart date is unavailable; assume October 15, 2009.
d. Operation records unavailable at time of report preparation; assume same as between February and July 2009.

Table 4
Comparison of Freon-11 Mass Removal in Model Validation
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Validation Period	Cumulative Freon-11 Mass Removed Based on SVE Operation Records (lbs)[a,b]	Simulated Freon-11 Mass Removed Assuming Zero Source Concentrations (lbs)[c]	Simulated Freon-11 Mass Removed Assuming Constant Source Concentrations (lbs)[c]
11/17/2008 to 1/7/2009	47	51	67
11/17/2008 to 7/10/2009	293	225	350
11/17/2008 to 11/2/2010	428	498	968

Notes:
a. lbs = pounds
b. Calculated from operation records by multiplying Freon-11 concentrations in SVE influent samples with cumulative extracted volumes.
c. Obtained from transport mass budget in MODFLOW-SURFACT output files.

Table 5
Soil Vapor Concentrations Corresponding to Water Quality Standards
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

COC	Percentage Mass[a]	Water Quality Standard[b] (µg/L)	Henry's Law Constant (unitless)	Calculated Soil Vapor Concentration based on Henry's Law Constant (mg/m^3)	Corresponding Freon-11 Vapor Concentration based on Percentage Mass (mg/m^3)
Carbon Tetrachloride	2.6%	5	1.13	5.65	117
Chloroform	34.0%	80[c]	0.15	12	24
1,1-Dichloroethene	0.5%	7	1.07	7.49	806
Methylene Chloride	0.2%	5	0.13	0.67	179
Tetrachloroethene	2.5%	5	0.72	3.62	78
Trichloroethene	2.2%	5	0.40	2.02	49
Freon-11	53.8%	150[d]	3.97	596	596

Notes:
a. Percentage mass as in Table 2 of the Preliminary Screening Risk Assessment (HGC, 2005)
b. AWQS unless noted otherwise
c. AWQS for total trihalomethane
d. California MCL

Table 6. Chemical Properties Used inr GPL Calculation and Calcluated GPL Values
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

Compound	Properties[1,2,3,4]				Water Quality Standard[5]	Calculated GPL[6]	Soil Saturation Concentration[6]	Source Soil Concentration[7]	Source Soil Vapor Concentration[8]
	Solubility	Henry's Law Constant	Organic Carbon Partition Coefficient (Koc)	Soil Distribution Coefficient (Kd)					
	(mg/L)	(unitless)	(L/kg)	(m^3/mg)	(µg/L)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/m^3)
Carbon tetrachloride	790	1.25	174	6.96E-10	5	12705.26	766.50	766.50	987500
Chloroform	7900	0.15	39.8	1.59E-10	80	46144.20	1743.82	1743.82	1185000
1,1-Dichloroethene (1,1-DCE)	2300	1.07	58.9	2.36E-10	7	7168.61	1092.59	1092.59	2461000
Methylene chloride	13200	0.09	11.7	4.68E-11	5	713.45	1276.37	713.45	662576
Tetrachloroethene (PCE)	200	0.754	155	6.20E-10	5	11683.17	159.67	159.67	150800
Trichloroethene (TCE)	1100	0.422	166	6.64E-10	5	15388.79	855.95	855.95	464200
Trichlorofluoromethane (Freon-11)	1100	4	160	6.40E-10	150	466845.21	1590.63	1590.63	4400000

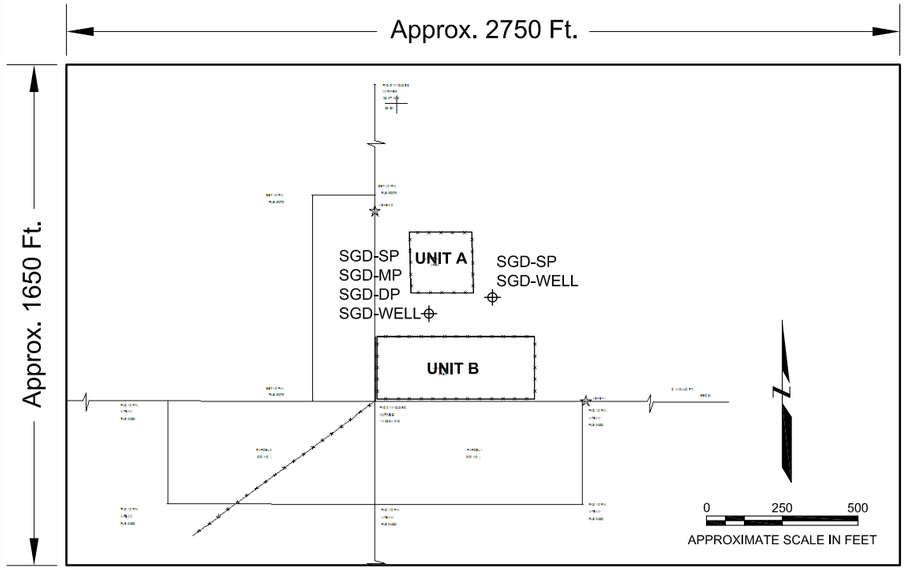
Notes:
1. Property values are obtained from ADEQ's GPL workbook, except for Freon-11.
2. Property values for Freon-11 are obtained from U.S. EPA Region IX Preliminary Remediation Goals (PRGs) guidance document (2004).
3. Kd = Koc*foc. foc is the fraction of organic content equal to 0.004 based on site data.
4. Default values in the ADEQ's GPL workbook are used for free-air diffusion coefficient (7000 cm^2/day) and aqueous diffusion coefficient (0.7 cm^2/day).
5. Water quality standards are Arizona aquifer water quality standards (AQWS), except Freon-11 which is California maximum contaminant levels (MCLs).
6. GPLs and soil saturation concentrations are calculated using ADEQ's GPL workbook.
7. Assumed source soil concentration is equal to the lesser value between calculated GPL and soil saturation concentration.
8. Assumed source soil vapor concentration is the soil vapor concentration in equilibrium with the assumed source soil concentration, as calculated using ADEQ's GPL workbook.

Table 7
Proposed Thresholds for Additional Actions
Development of SVE Operational Parameters
RCRA Part B Post Closure Permit Renewal
Page-Trowbridge Ranch Landfill

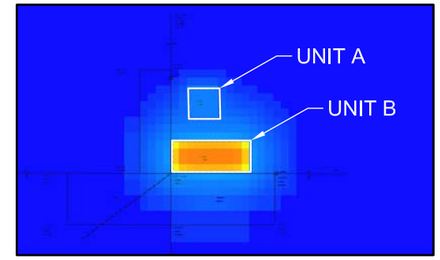
Compound	SGS-Well/SVE Influent		SGS-SP		SGD-SP		SGD-MP		SGD-DP	MW-2	MW-5
	Lowest Simulated Plateau Concentration	Proposed Thresdhold	Lowest Simulated Plateau Concentration	Proposed Thresdhold	Lowest Simulated Plateau Concentration	Proposed Thresdhold	Lowest Simulated Plateau Concentration	Proposed Thresdhold	Proposed Thresdhold	Proposed Thresdhold	Proposed Thresdhold
Carbon tetrachloride	8500	850	4500	450	1800	180	1300	130	130	6	6
Chloroform	9000	900	4800	480	2100	210	1400	140	140	12	12
1,1-Dichloroethene (1,1-DCE)	21600	2160	11500	1150	4700	470	3400	340	340	7	7
Methylene chloride	5300	530	2800	280	1200	120	800	80	80	1	1
Tetrachloroethene (PCE)	1300	130	700	70	300	30	200	20	20	4	4
Trichloroethene (TCE)	3300	330	1800	180	800	80	500	50	50	2	2
Trichlorofluoromethane (Freon-11)	38700	3870	20600	2060	8600	860	6400	640	640	596	596

Notes:
1. All concentrations are in mg/m^3
2. Proposed thresholds are calculated as 10% of lowest plateau concentration, except SGD-DP.
3. Proposed thresholds for SGD-MP are used for SGD-DP.
4. Proposed thresholds for MW-2 and MW-5 are set at soil vapor concentrations in equilibrium to water quality standards.

FIGURES



PLAN VIEW



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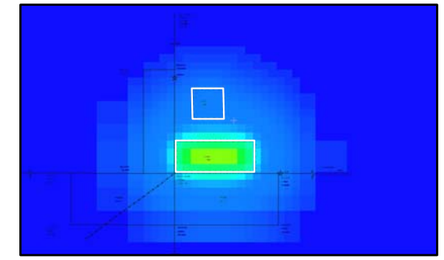

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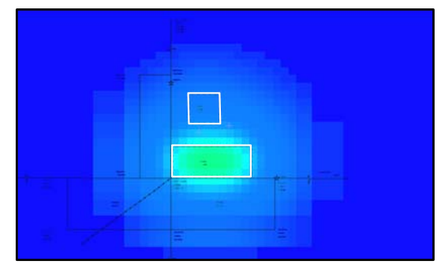

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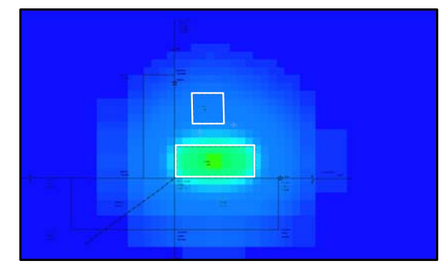

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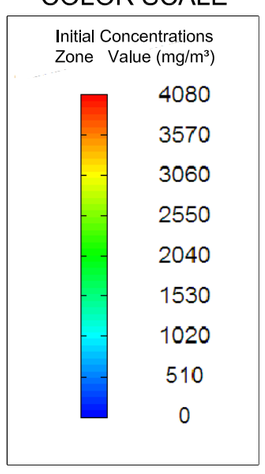
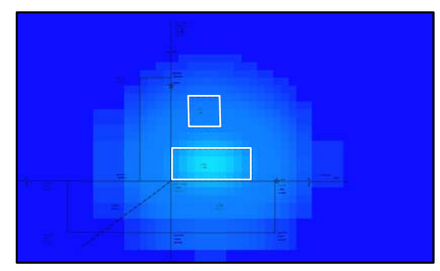
(Depth = 126 ft bgs)

COLOR SCALE





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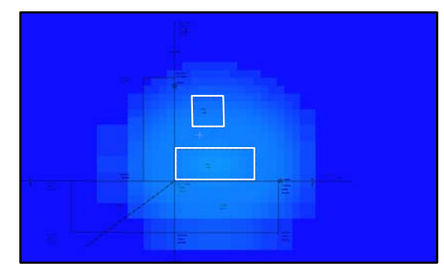


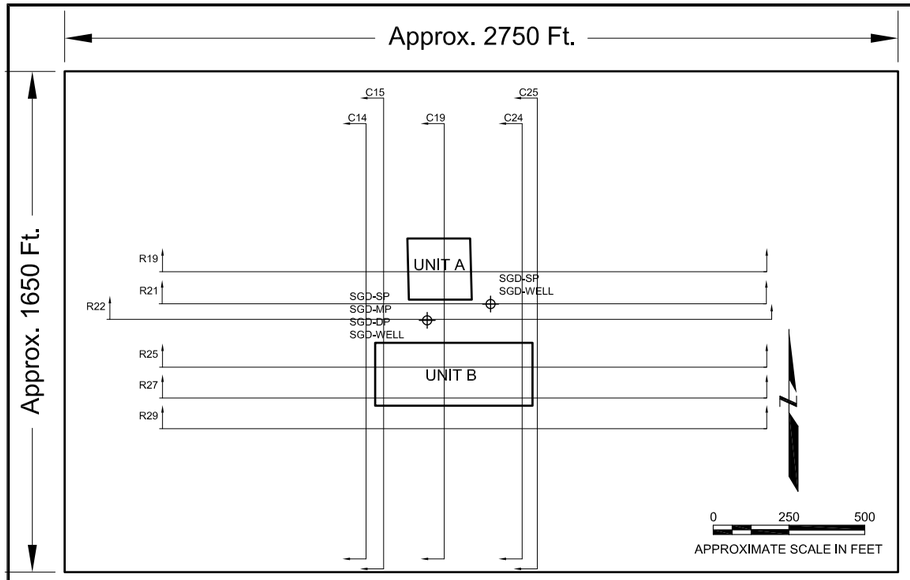
LAYER 16
(Depth = 344 ft bgs)

EXPLANATIONS:

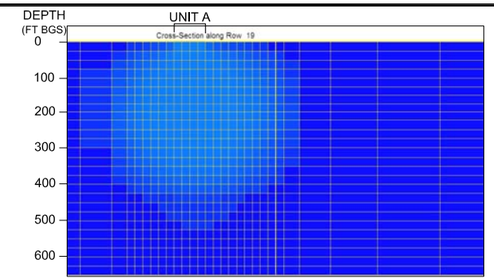
ft = feet
bgs = below ground surface
mg = milligram
m^3 = cubic meter

	CLIENT LOGO	CLIENT: UNIVERSITY OF ARIZONA P.O. BOX 210460 TUCSON, AZ 85721-0460	DWN BY: MDS CHK'D BY: MZ DATUM: PROJECTION: SCALE: AS SHOWN	PROJECT PAGE - TROWBRIDGE RANCH LANDFILL RCRA PART B POST CLOSURE PERMIT APPLICATION (EPA ID AZ98066584)	DATE: 3/30/12 PROJECT NO: PROJECT NO.
		AMEC Environment & Infrastructure 4600 East Washington Street, Suite 600 Phoenix, AZ 85034		TITLE INITIAL CONCENTRATIONS FOR MODEL VALIDATION PLAN VIEW	REV. NO.: A FIGURE No. FIGURE 1A

S:\AMEC-Offices\Tempe\112011\CAD\Substantive Rvw Fig11 032312.dwg - FIG 1A - Mar, 30, 2012 10:39am - adam.stenberg



LOCATIONS OF CROSS-SECTIONS



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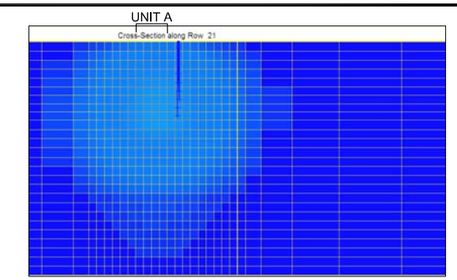

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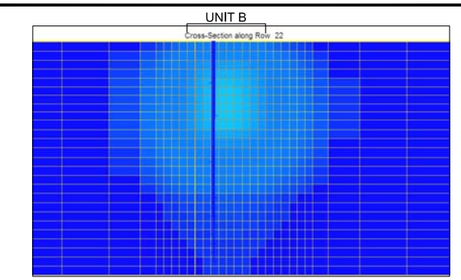

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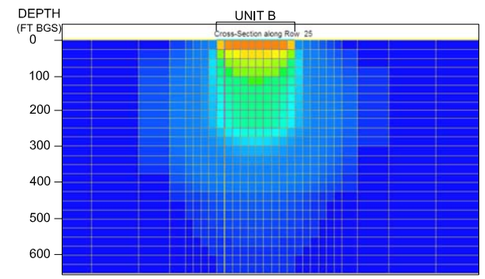

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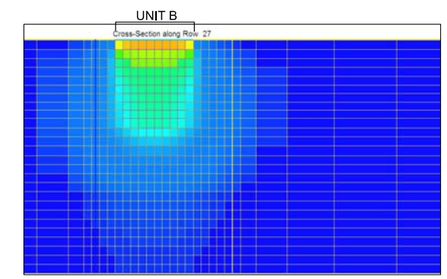

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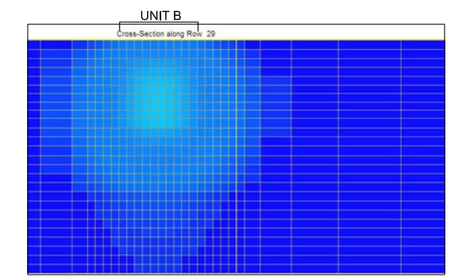

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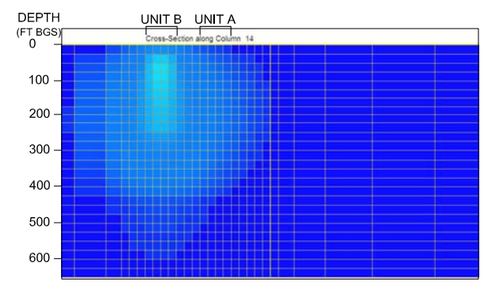

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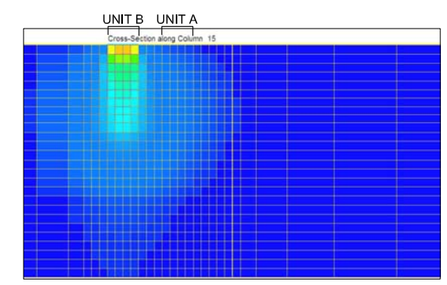

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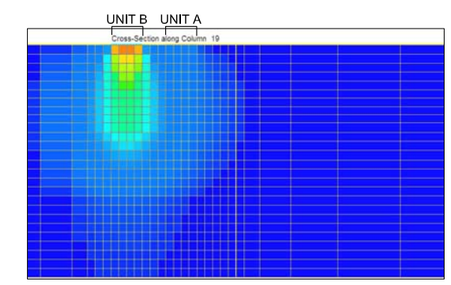

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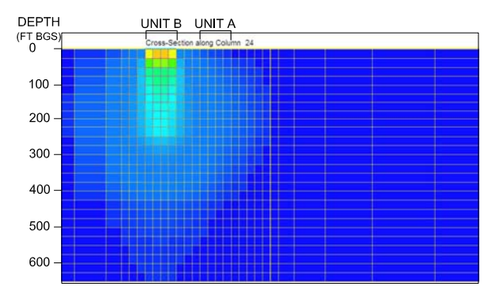

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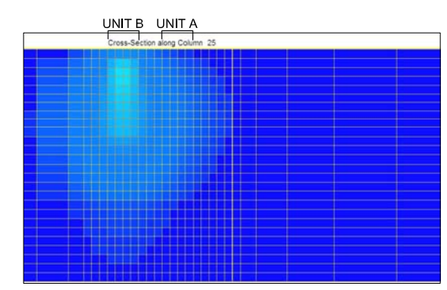

COLUMN 25

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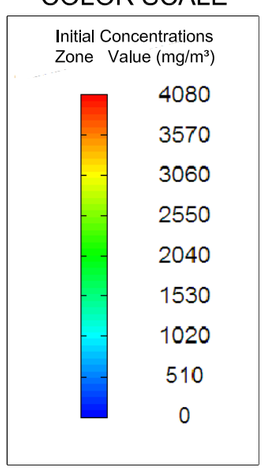


EXPLANATIONS:

ft = feet
bgs = below ground surface
mg = milligram
m³ = cubic meter

SOURCE: SCS ENGINEERS, PHOENIX AZ.

CLIENT LOGO

CLIENT:
UNIVERSITY OF ARIZONA
P.O. BOX 210460
TUCSON, AZ 85721-0460

AMEC
Environment & Infrastructure
4600 East Washington Street, Suite 600
Phoenix, AZ 85034

DWN BY: MDS
CHK'D BY: MZ
DATUM:
PROJECTION:
SCALE: AS SHOWN

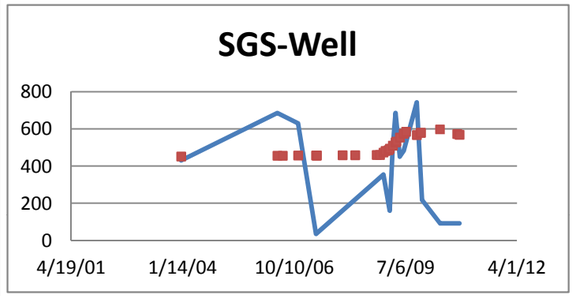
PROJECT PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

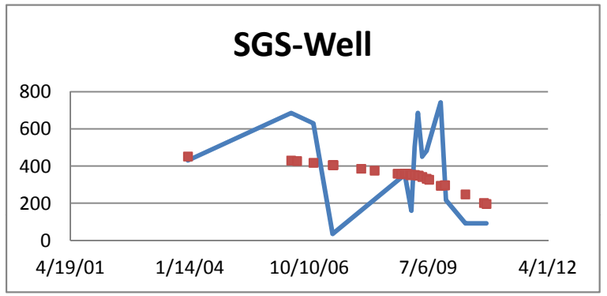
TITLE
INITIAL CONCENTRATIONS FOR MODEL VALIDATION
CROSS SECTIONS

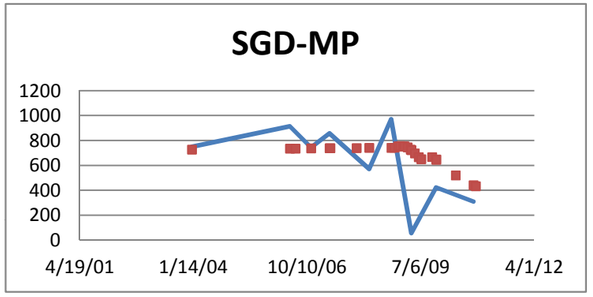
DATE: 3/30/12
PROJECT NO: PROJECT NO.
REV. NO.: A
FIGURE No. FIGURE 1B

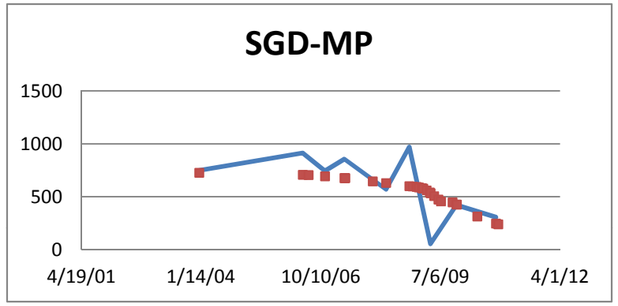
S:\AMEC-Offices\Tempe\11201\CAD\Substantive Rvw Fig11 032312.dwg - FIG 1B - Mar, 30, 2012 10:40am - adam.stenberg

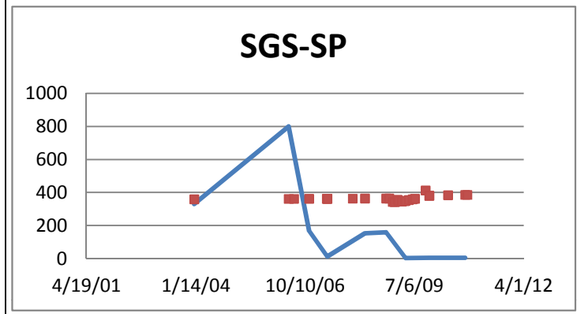
Constant Source Concentration Unchanged | **Source Concentrations Equal to Zero** | **Constant Source Concentration Unchanged** | **Source Concentrations Equal to Zero**

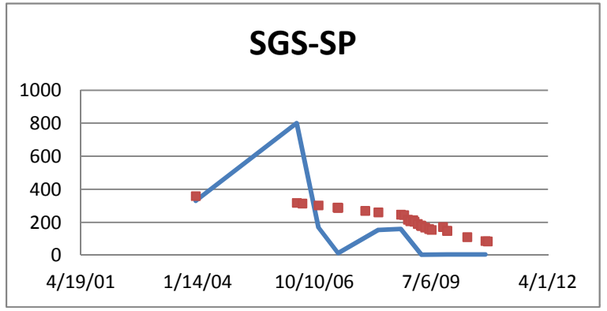


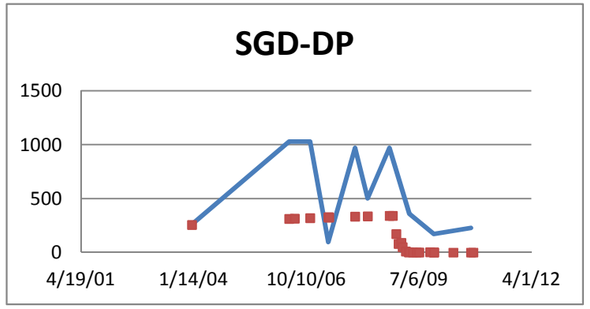


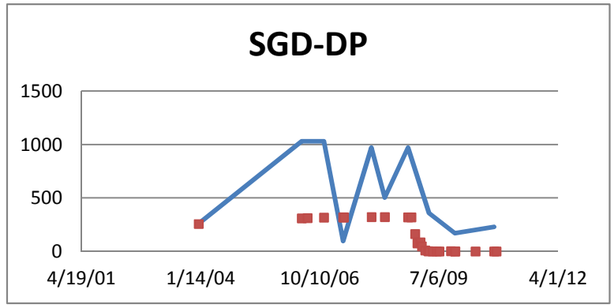


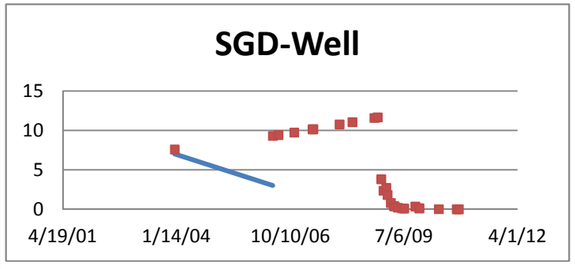


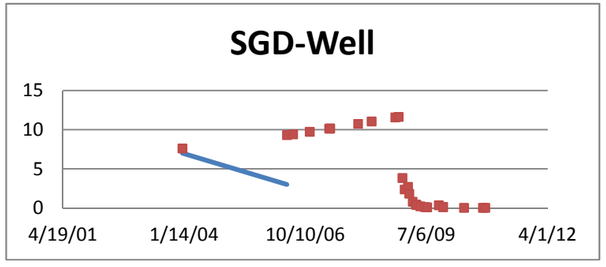


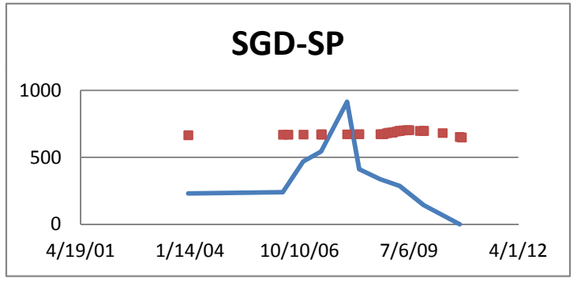


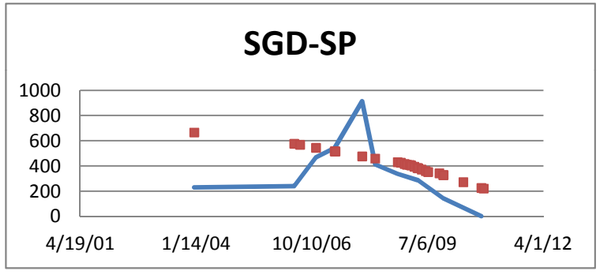










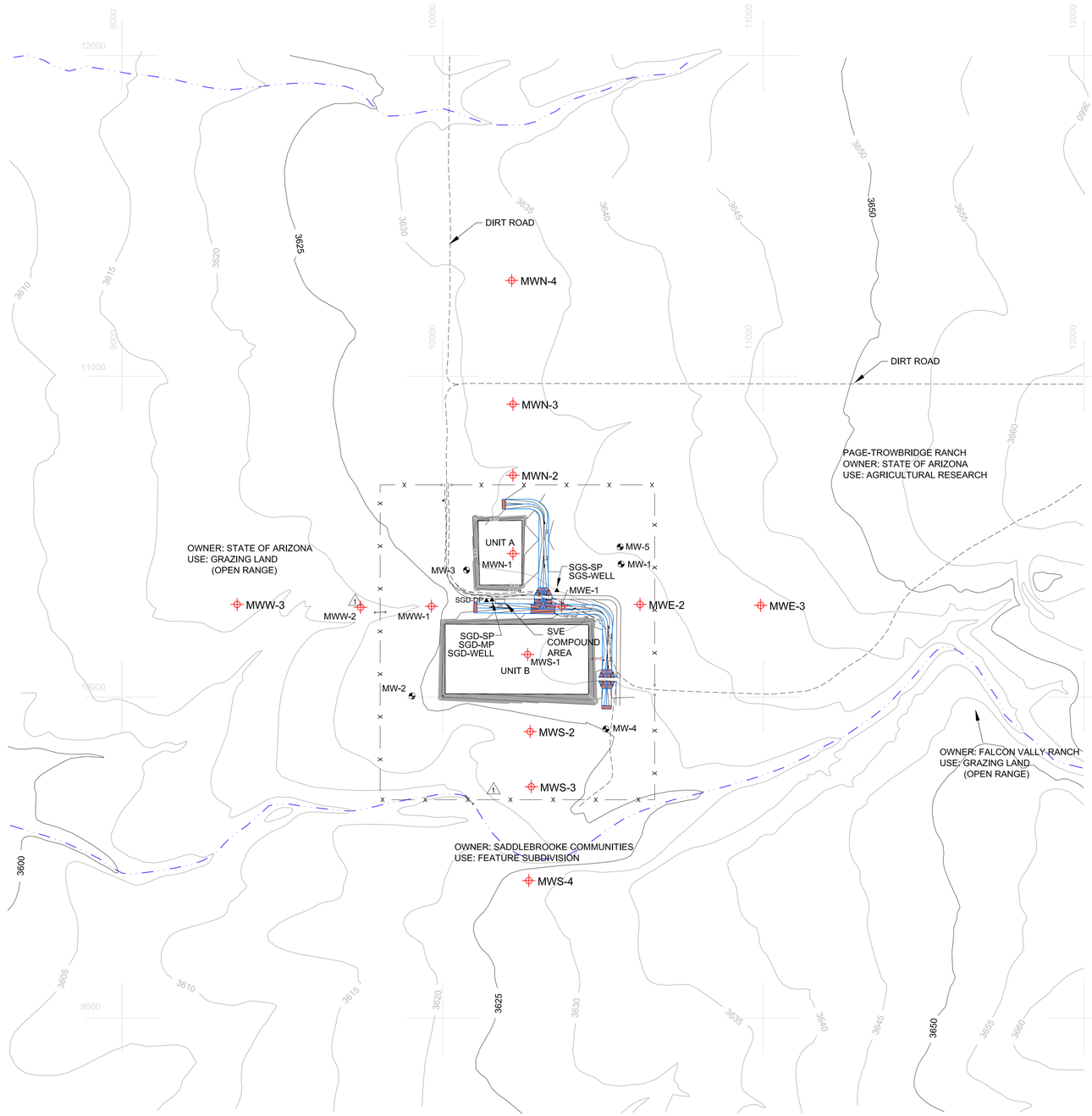


Explanations:

Red - simulated concentrations
Blue - observed concentrations
X axis - date
Y axis - Freon-11 concentration in mg/m^3

MODEL VALIDATION RESULTS

By: MZ	Date: 06/17/11	Project No.: 1420112012
amec		Figure 2



EXPLANATION

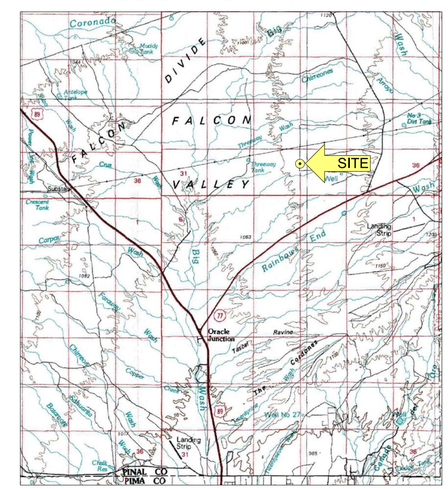
GROUNDWATER MONITORING WELL

VIRTUAL MONITORING POINT

0 200 400

APPROXIMATE SCALE IN FEET

LOCATION MAP



SOURCE: USGS MAMMOTH, ARIZONA 1986
1:100000 SCALE

SOURCE: STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, PHOENIX, ARIZONA
DECEMBER 12, 1997.

REV	D	M	Y	ISSUE/REVISION DESCRIPTION	ENG.	APPR.
G						
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TUCSON, AZ. 85721-0460

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4600 East Washington Street, Suite 600
Phoenix, AZ 85034

amec

DATUM: --
PROJECTION: --
DRAWN BY: APS
REVIEWED BY: M. ZHANG
ORIGINAL SCALE: AS SHOWN

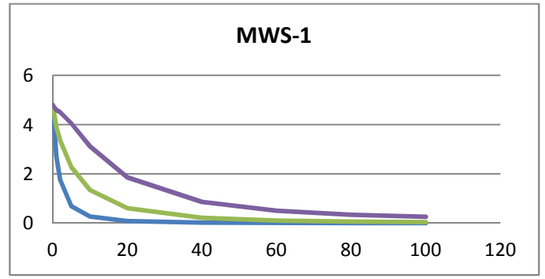
PROJECT: PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

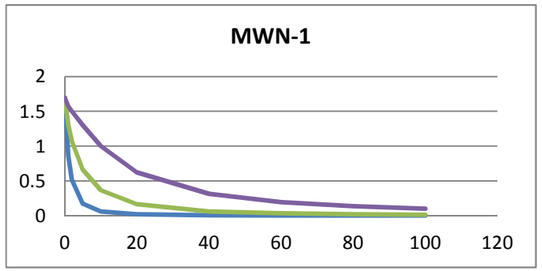
TITLE: LOCATIONS OF VIRTUAL MONITORING POINTS

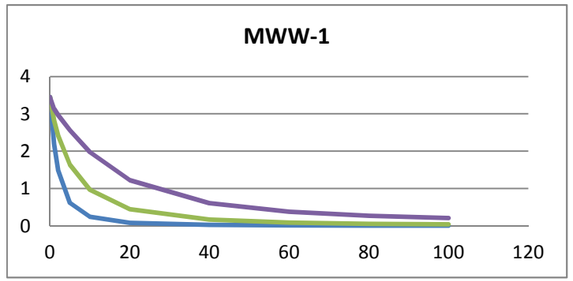
PROJECT NO.: A00377
REVISION NO. A
DATE: 3/30/12
DRAWING NO.: Figure 3
SHEET NO.: 1 of 1

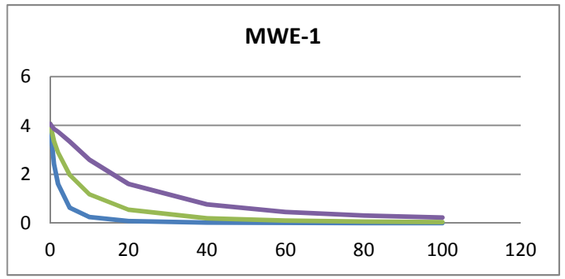
S:\AMEC-Office\Tempe\11201\CAD\PTRL RCRA MP-Locations-Graphs_09\11b.dwg - FIGURE 3 - Mar. 30, 2012 10:28am - adam.sterberg

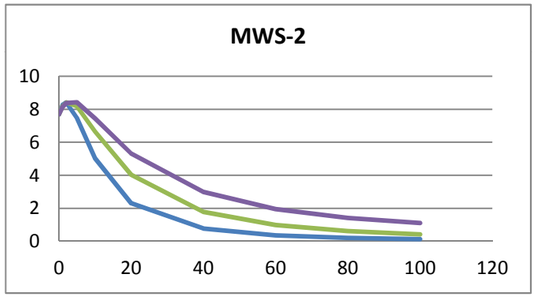
www.amec.com/earthandenvironmental

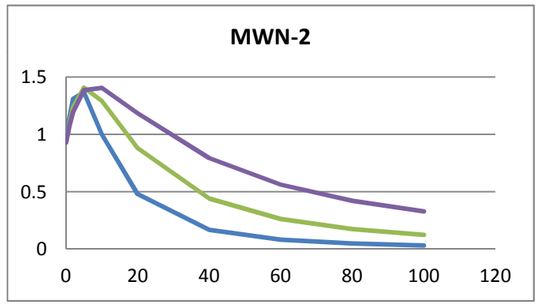


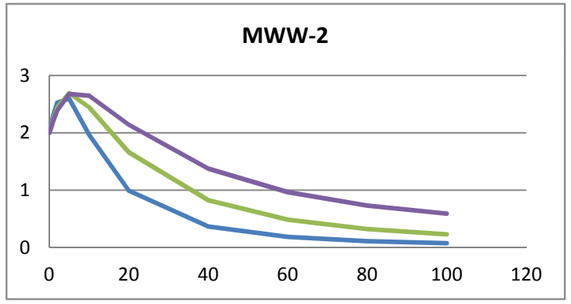


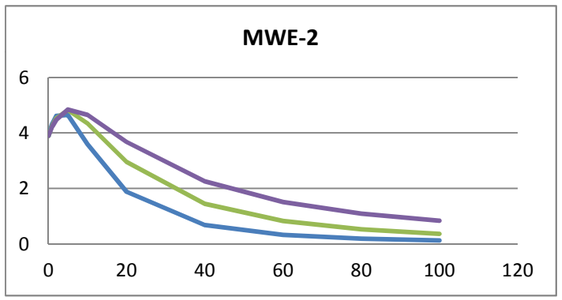


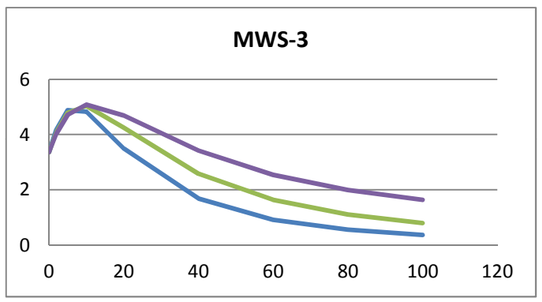


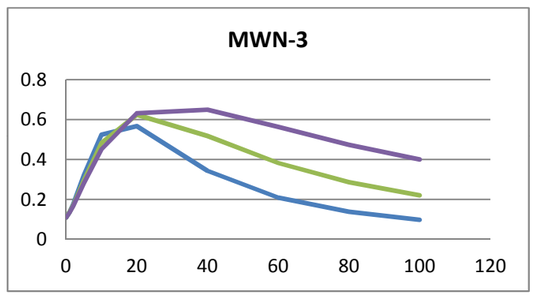


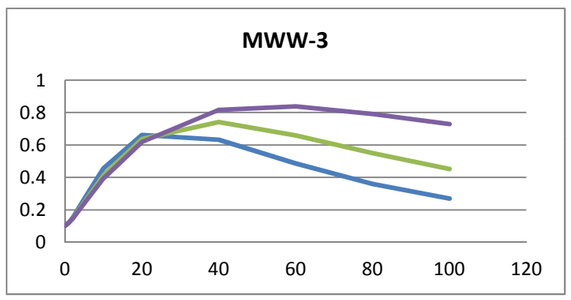


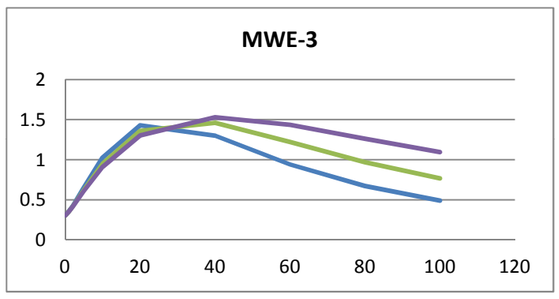


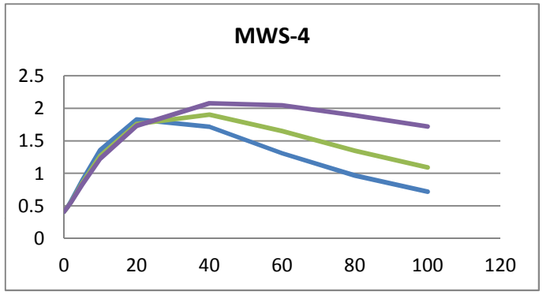


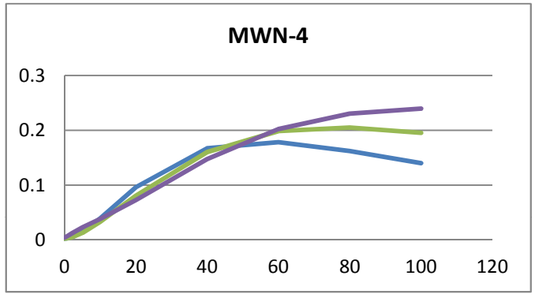










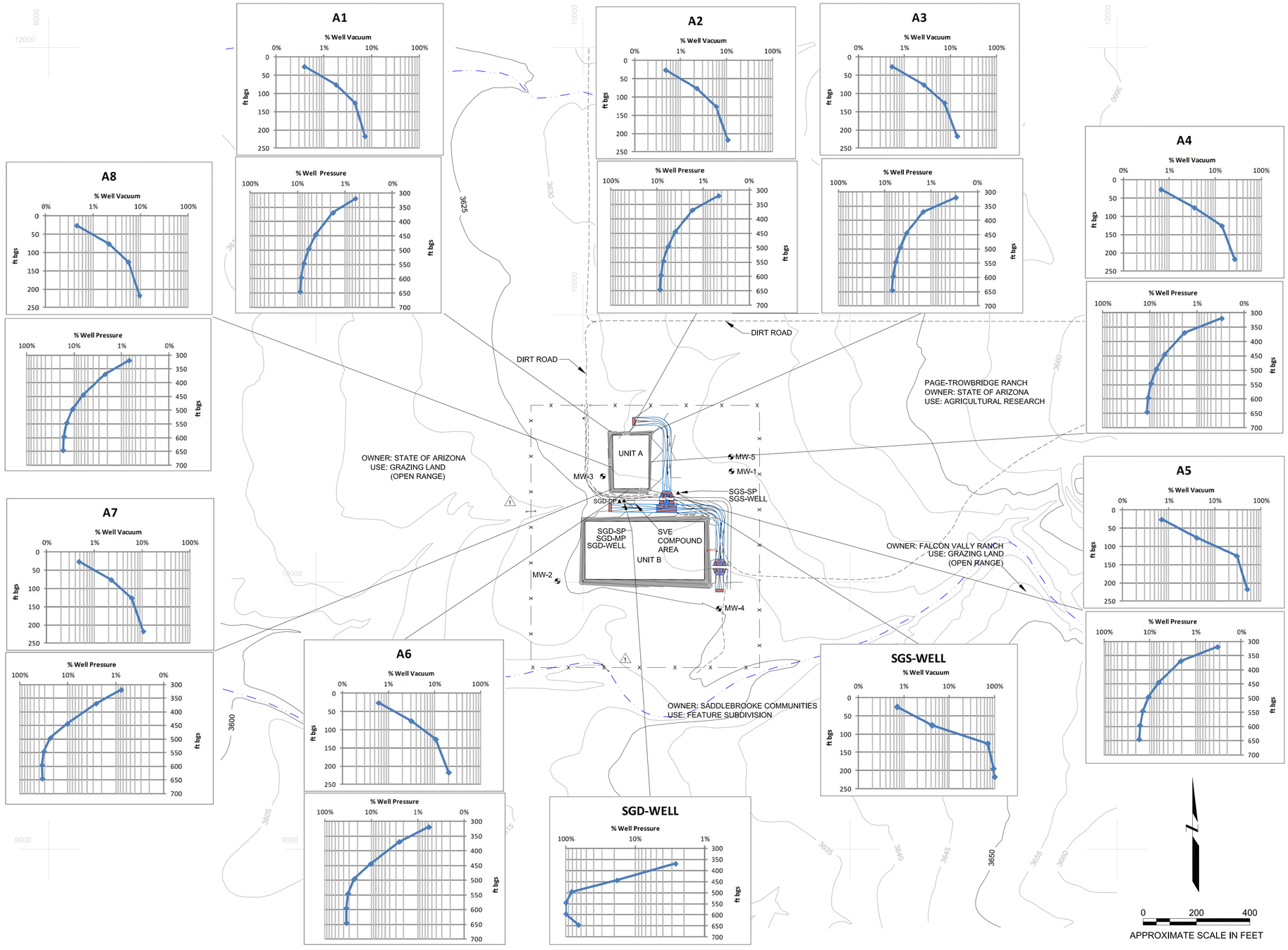


Explanations:

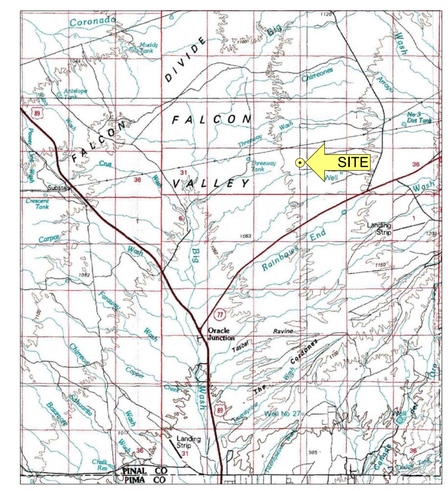
Blue - simulated concentrations using extraction rate of 37 scfm and injection rate of 15 scfm
Green - simulated concentrations using extraction rate of 18.5 and injection rate of 7.5 scfm
Magenta - simulated concentrations using extraction rate of 9.25 and injection rate of 3.75 scfm
X axis - years
Y axis - Freon-11 concentration in mg/m^3

SIMULATED SOILVAPOR CONCENTRATIONS WITHIN 25 FT OF WATER TABLE AT VARIOUS EXTRACTION/INJECTION RATES

By: MZ	Date: 06/17/11	Project No.:1420112012
amec		Figure 4



LOCATION MAP



SOURCE: USGS MAMMOTH, ARIZONA 1986
1:100000 SCALE

ft bgs = FEET BELOW GROUND SURFACE

REV	D	M	Y	ISSUE/REVISION DESCRIPTION	ENG.	APPR.
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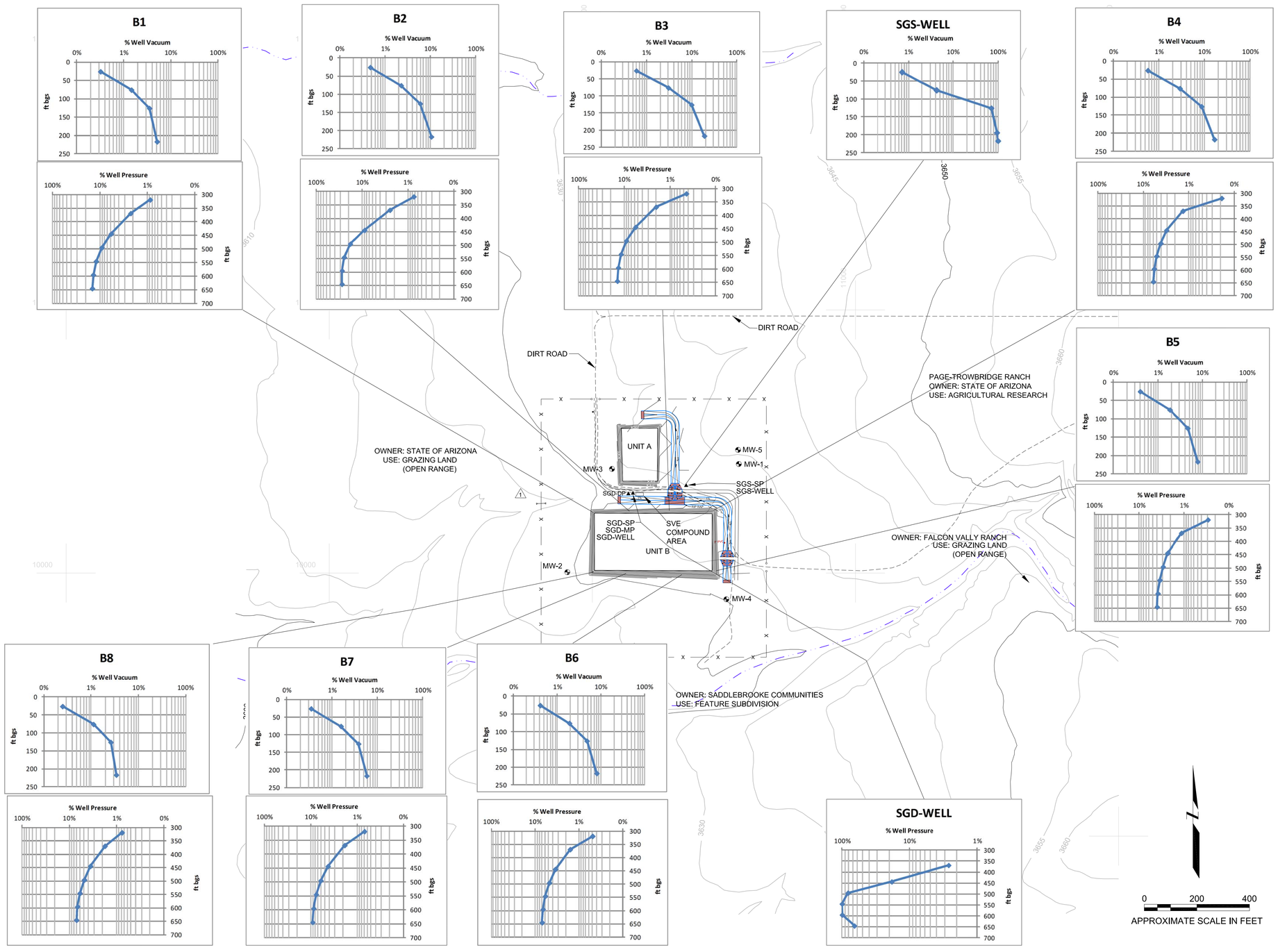
DATUM: --
PROJECTION: --
DRAWN BY: MDS
REVIEWED BY: M. ZHANG
ORIGINAL SCALE: AS SHOWN

PROJECT: PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

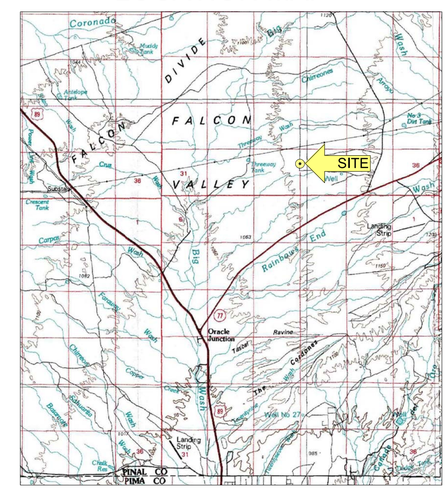
TITLE: SIMULATED PRESSURE RESPONSES AT EXTRACTION / INJECTION RATES OF 9.25 AND 3.75 SCFM AROUND UNIT A

PROJECT NO.: A00377
REVISION NO. A
DATE: 3/30/12
DRAWING NO.: Figure 5A
SHEET NO.: _ of _

S:\AMEC-Offices\Tempe\11201\CAD\PTB_RCRA\BP\Acceptance Graphs B\V_020212.dwg - Figure 5A - Mar. 30, 2012 10:26am - adam.stenberg



LOCATION MAP



SOURCE: USGS MAMMOTH, ARIZONA 1986
1:100000 SCALE

ft bgs = FEET BELOW GROUND SURFACE

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4600 East Washington Street, Suite 600
Phoenix, AZ 85034

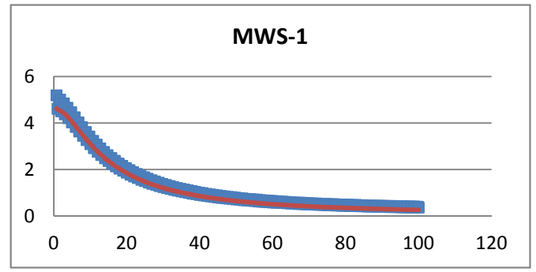
DATUM: --
PROJECTION: --
DRAWN BY: MDS
REVIEWED BY: M. ZHANG
ORIGINAL SCALE: AS SHOWN

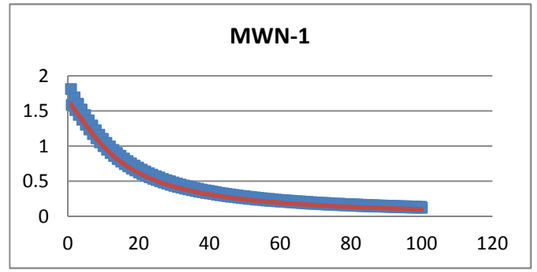
PROJECT: PAGE - TROWBRIDGE RANCH LANDFILL
RCRA PART B POST CLOSURE PERMIT APPLICATION
(EPA ID AZ98066584)

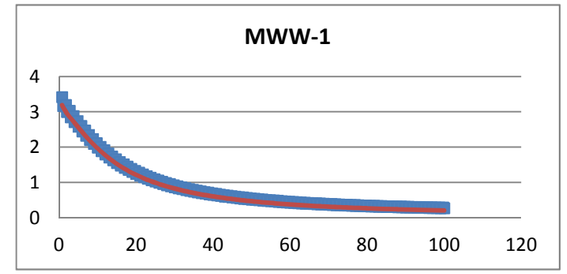
TITLE: SIMULATED PRESSURE RESPONSES AT EXTRACTION / INJECTION RATES OF 9.25 AND 3.75 SCFM AROUND UNIT B

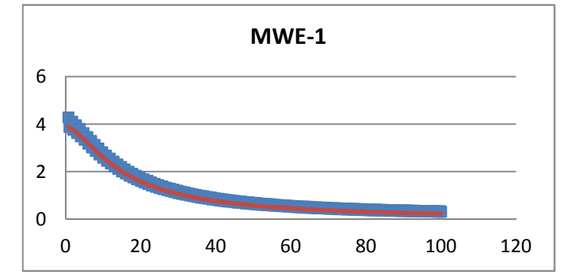
PROJECT NO.: A00377
REVISION NO. A
DATE: 3/30/12
DRAWING NO.: Figure 5B
SHEET NO.: _ of _

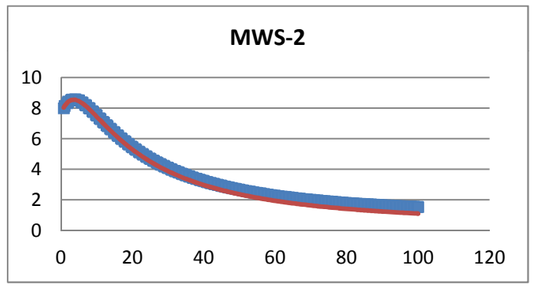
S:\AMEC-Offices\Tempe\1201\CAD\PTRL RCRA MP-locations-Graphs BV_03312.dwg - Figure 5B - Mar. 30, 2012 10:36am - adam.steinberg

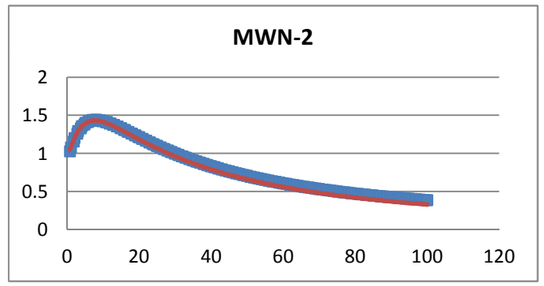


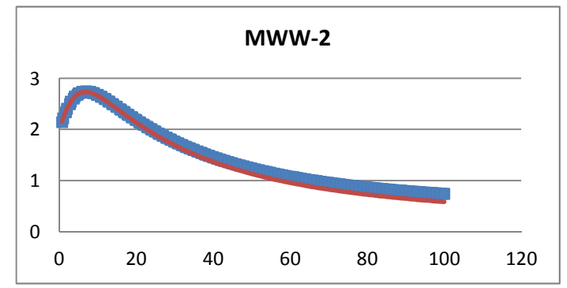


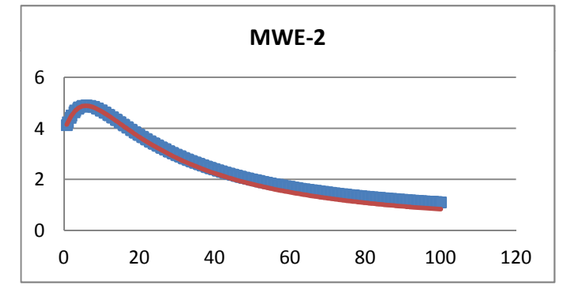


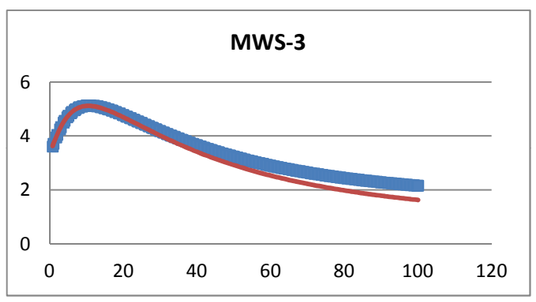


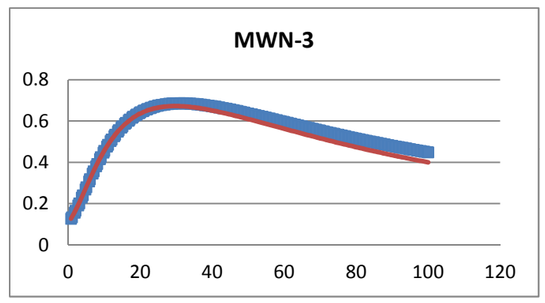


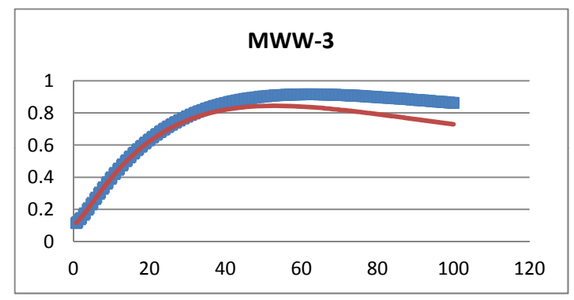


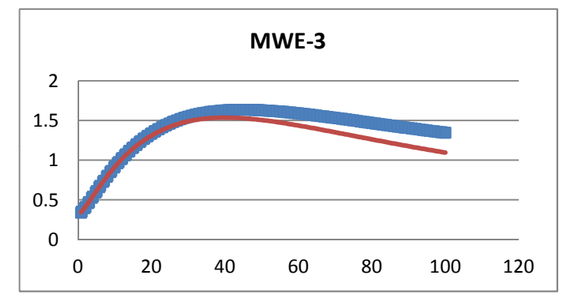


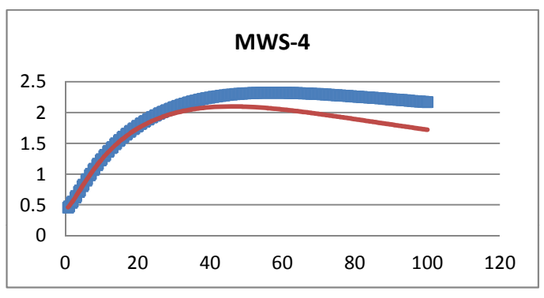


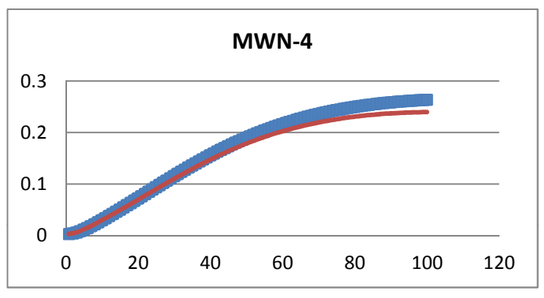










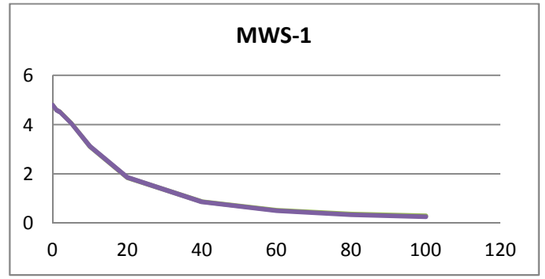


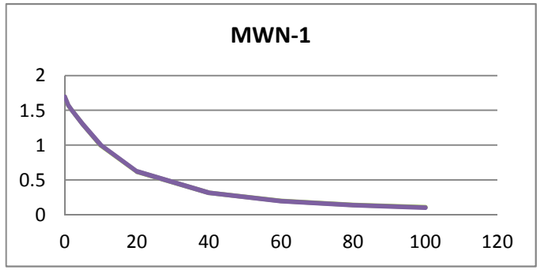
Explanations:

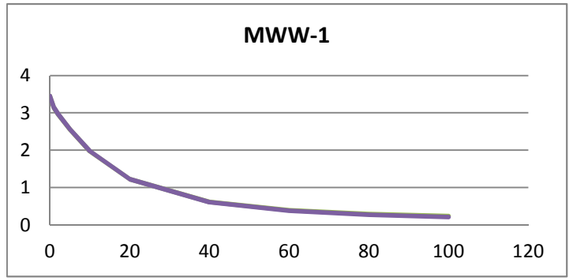
Red - simulated concentrations assuming no shutdown
Blue - simulated concentrations assuming nine-month shutdown during each twelve-month period
X axis - years
Y axis - Freon-11 concentration in mg/m^3

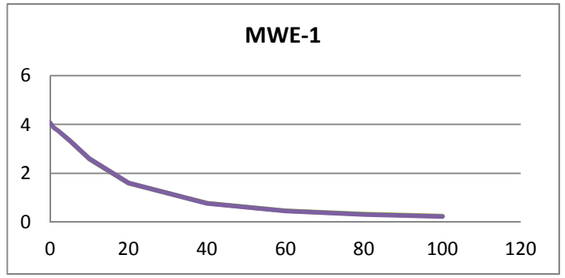
SIMULATED SOIL VAPOR CONCENTRATIONS WITHIN 25 FT OF WATER TABLE - EXTRACTION/INJECTION RATES OF 9.25 SCFM AND 15 SCFM ON "NINE MONTHS OFF, THREE MONTHS ON" SCHEDULE

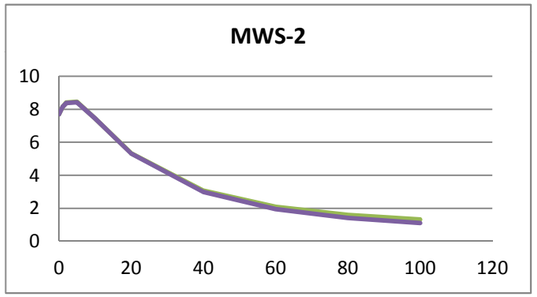
By: MZ	Date: 06/28/11	Project No.: 1420112012
amec		Figure 6

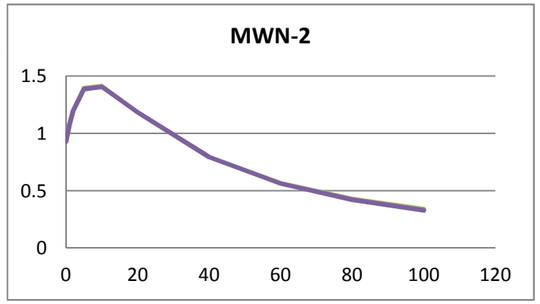


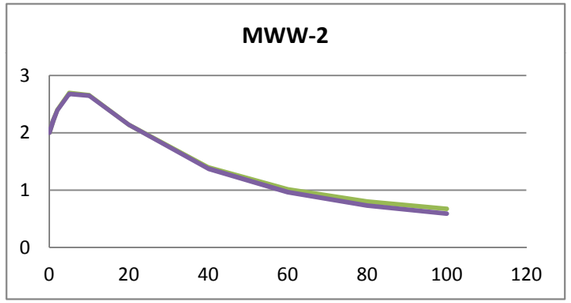


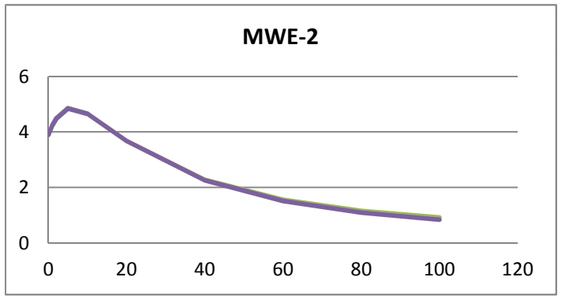


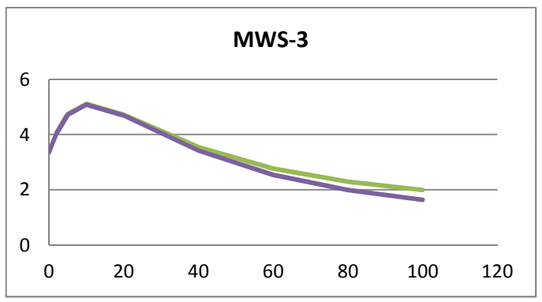


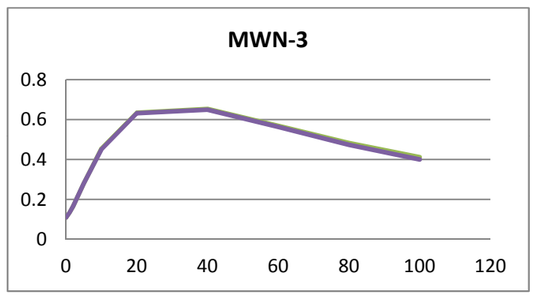


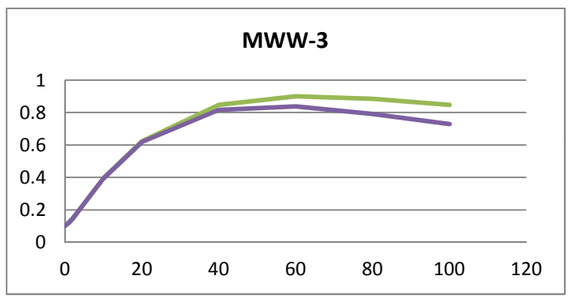


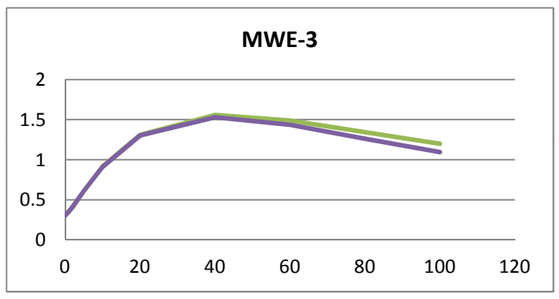


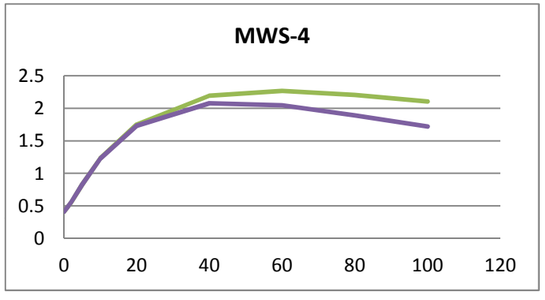


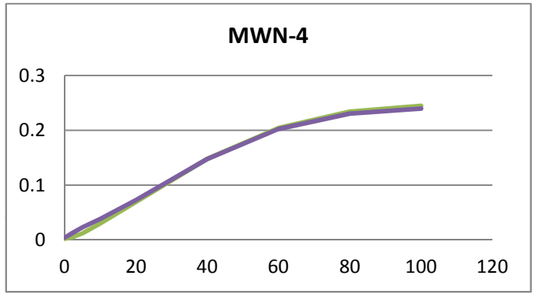










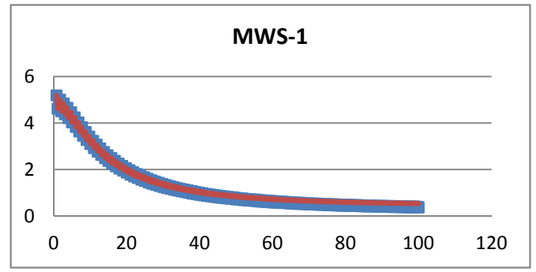


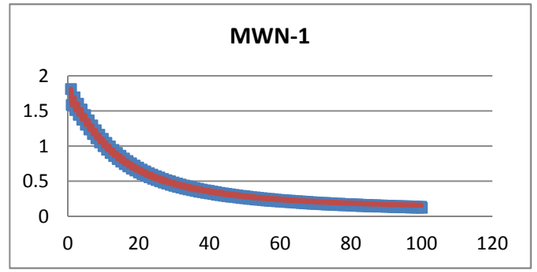
Explanations:

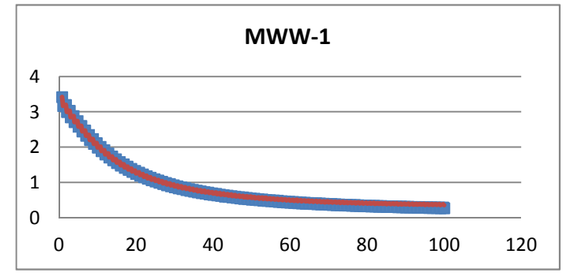
Green - simulated concentrations assuming source concentrations equal to twice the calibrated values
Magenta - simulated concentrations assuming source concentrations equal to the calibrated valules
X axis - years
Y axis - Freon-11 concentration in mg/m^3

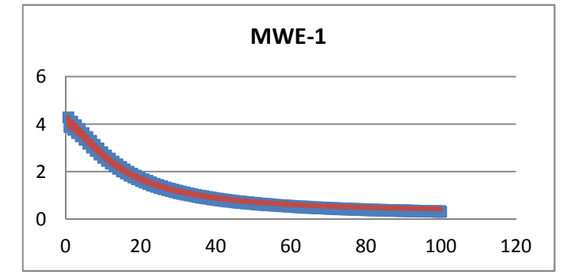
UNCERTAINTY ANALYSIS RESULTS - EXTRACTION/INJECTION RATES OF 9.25 SCFM AND 3.75 SCFM

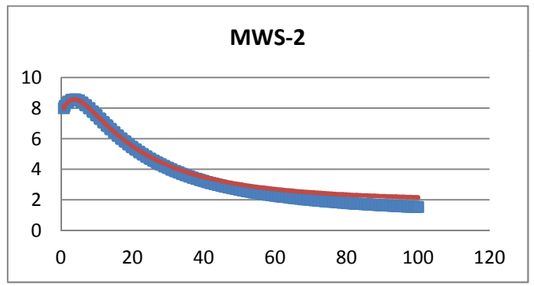
By: MZ	Date: 03/21/12	Project No.: 1420112012
amec		Figure 7

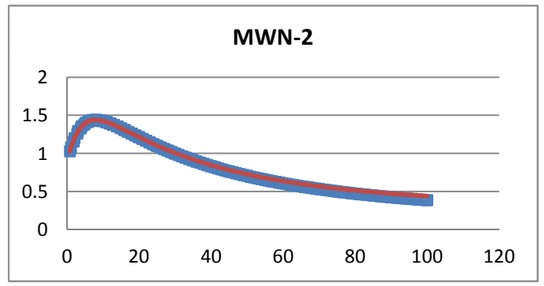


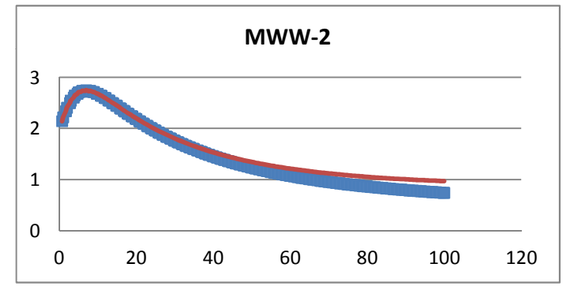


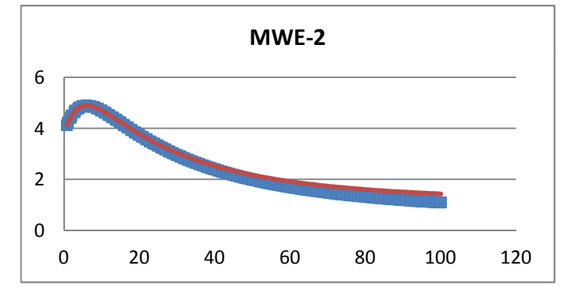


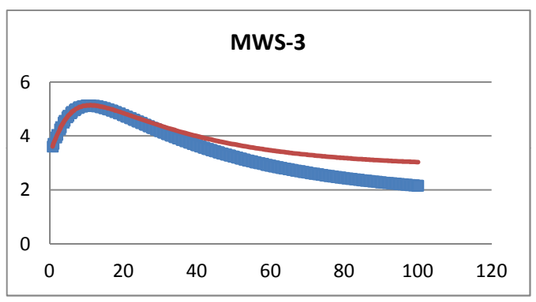


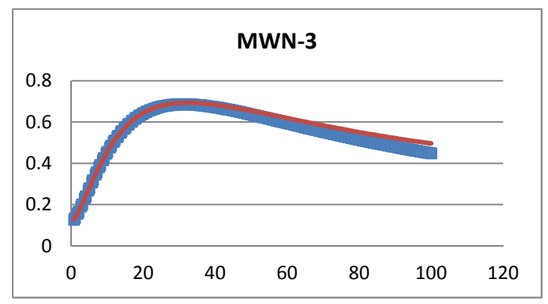


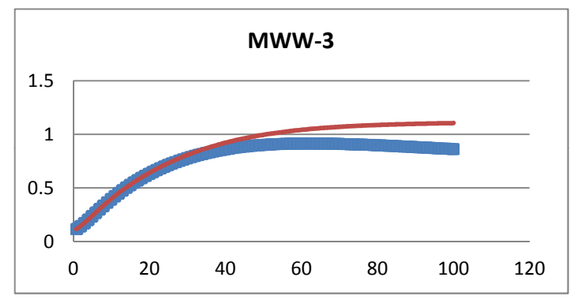


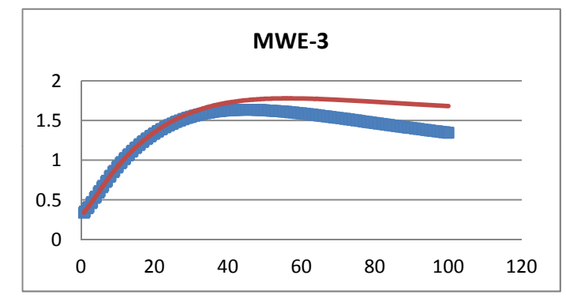


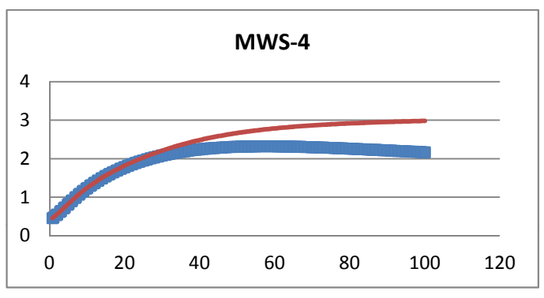


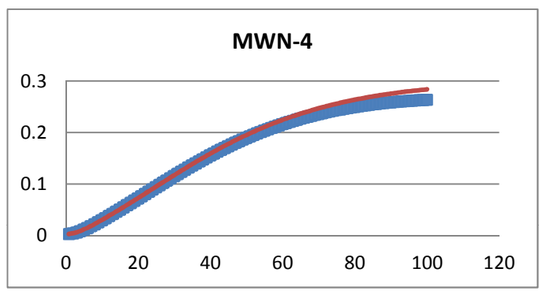










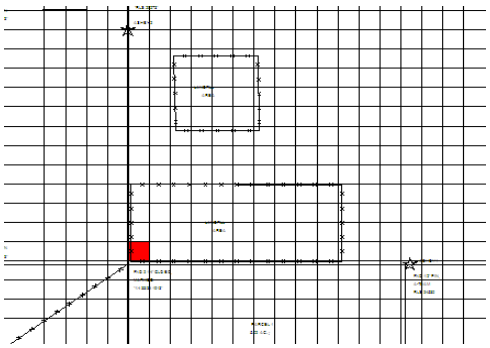


Explanations:

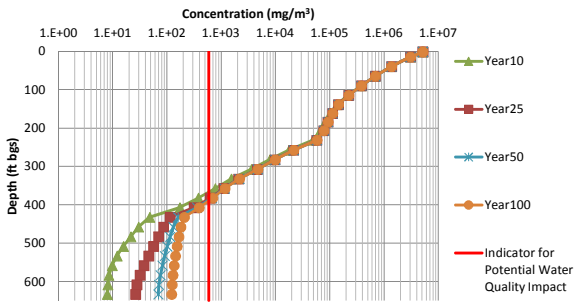
Red - simulated concentrations assuming source concentrations equal to twice the calibrated values
Blue - simulated concentrations assuming source concentrations equal to the calibrated valules
X axis - years
Y axis - Freon-11 concentration in mg/m^3

UNCERTAINTY ANALYSIS RESULTS - EXTRACTION/INJECTION RATES OF 9.25 SCFM AND 3.75 SCFM ON “NINE MONTHS OFF, THREE MONTHS ON” SCHEDULE

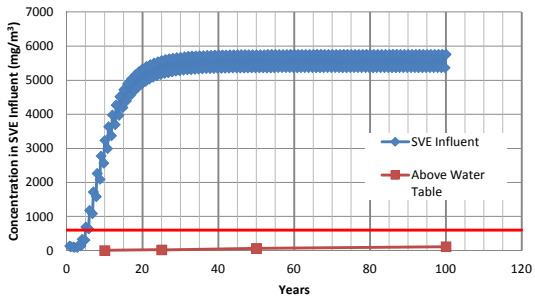
By: MZ	Date: 06/28/11	Project No.: 1420112012
amec		Figure 8



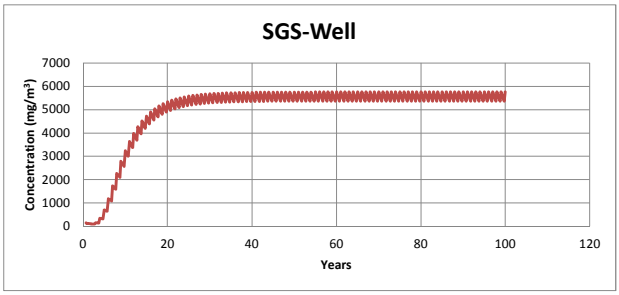
Remote Release in Southwest Corner of Landfill Unit B

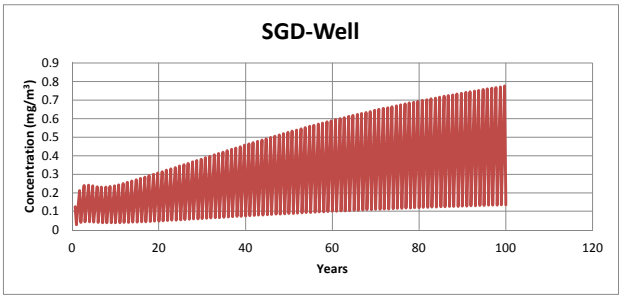


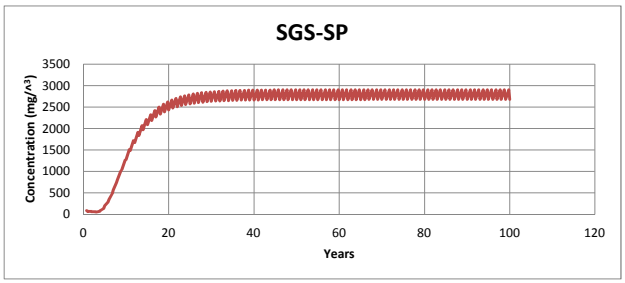
Highest Simulated Concentration at Depth

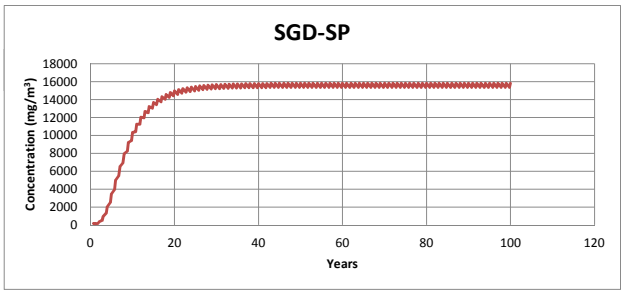


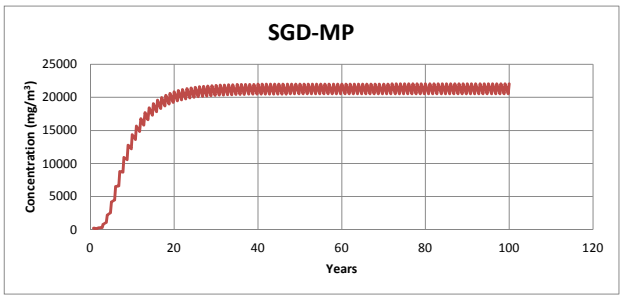
Concentrations in SVE Influent and Soil Vapor above Water Table

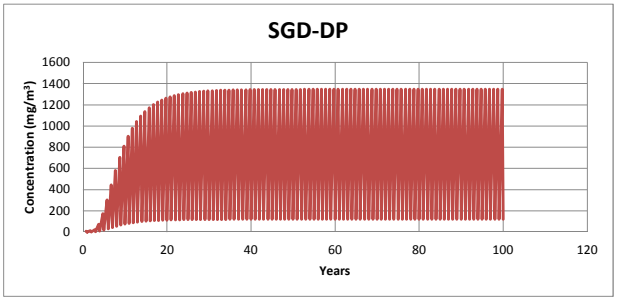








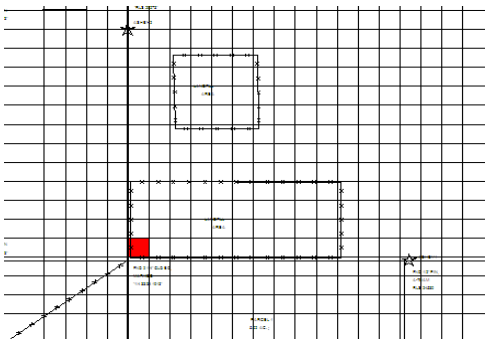




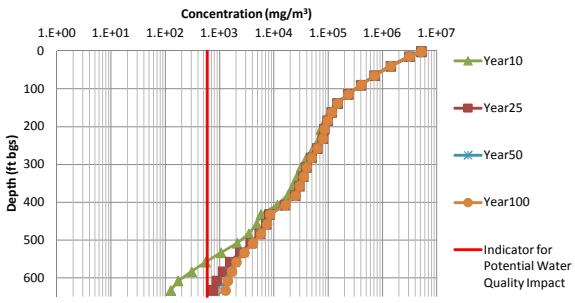
Explanation:
1. SGS-Well is in extraction mode. SGD-Well is in injection mode.
2. SGS-Well and SGD-Well are operating on a schedule of nine-month off & three-month on.
3. When in operation, SGS-Well and SGD-Well are operating at time-averaged extraction/injection rates of 37 and 15 scfm, respectively.
3. All concentrations plotted are for Freon-11 in unit of mg/m^3.
4. A simulated release occurs at year zero in the southwest corner of landfill Unit B.

amec

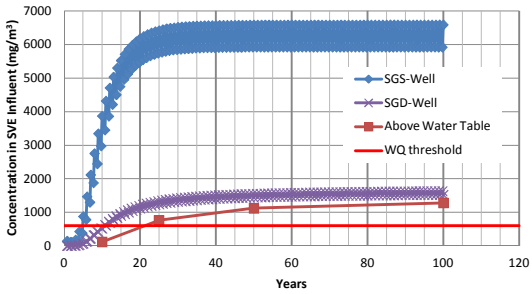
Project: 1420112012	**Figure 9**
By: MZ	**Simlated Concentrations at Monitoring Points and in SVE Influent for**
Date: 04/20/12	**Remote Release with SGS-Well in Extraction Mode and SGD-Well in Injection Mode**



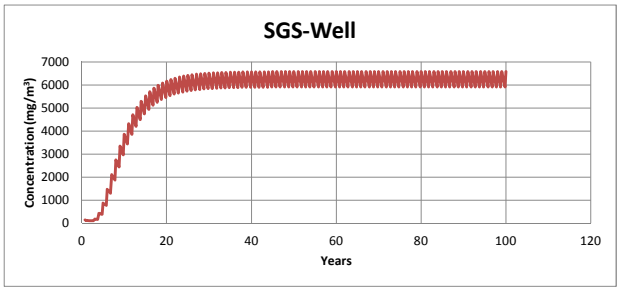
Remote Release in Southwest Corner of Landfill Unit B

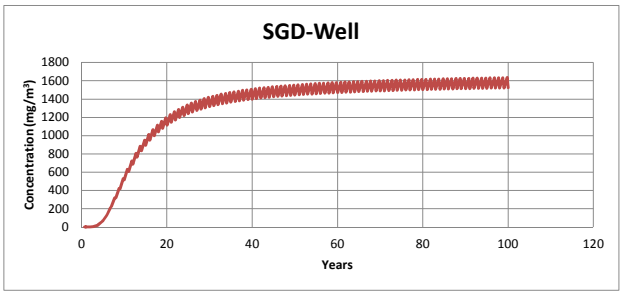


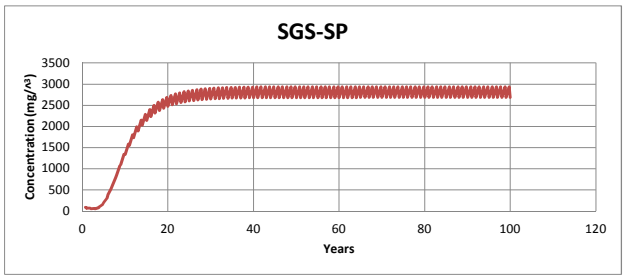
Highest Simulated Concentration at Depth

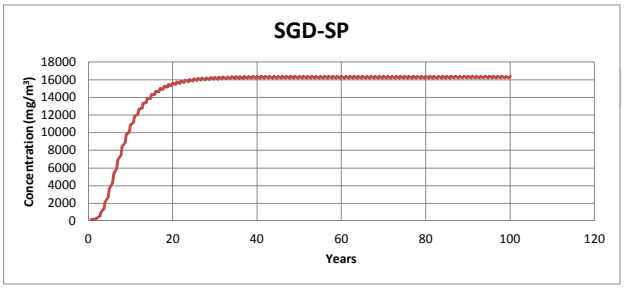


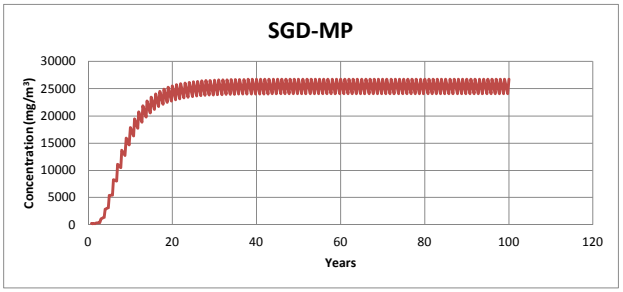
Concentrations in SVE Influent and Soil Vapor above Water Table

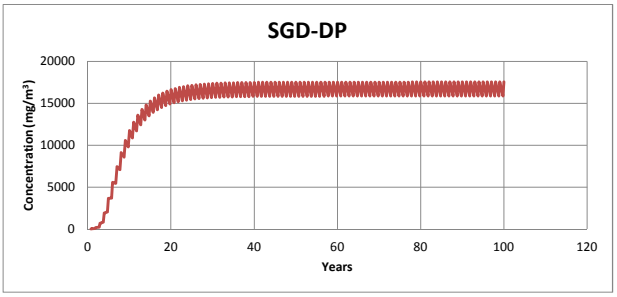








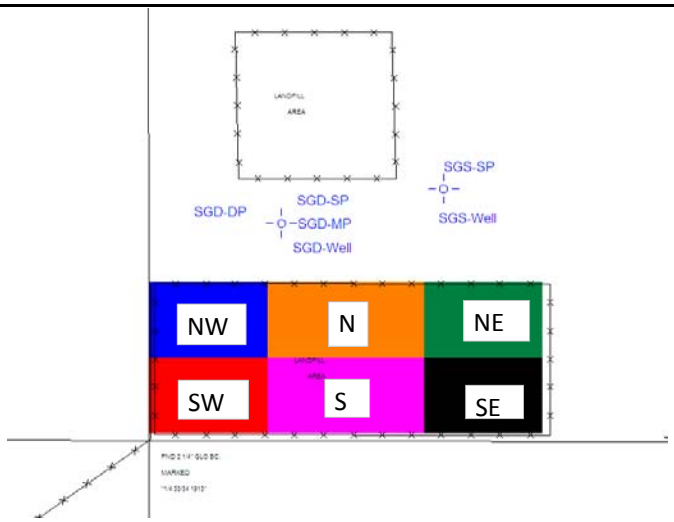




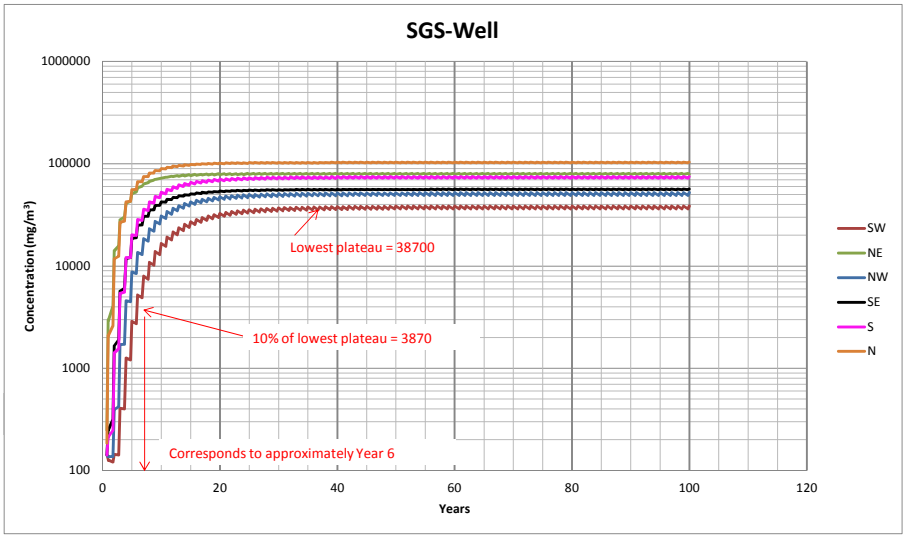
Explanation:
1. Both SGS-Well and SGD-Well are in extraction mode.
2. SGS-Well and SGD-Well are operating on a schedule of nine-month off & three-month on.
3. When in operation, SGS-Well and SGD-Well are operating at time-averaged extraction rates of 37 and 15 scfm, respectively.
3. All concentrations plotted are for Freon-11 in unit of mg/m^3.
4. A simulated release occurs at year zero in the southwest corner of landfill Unit B.

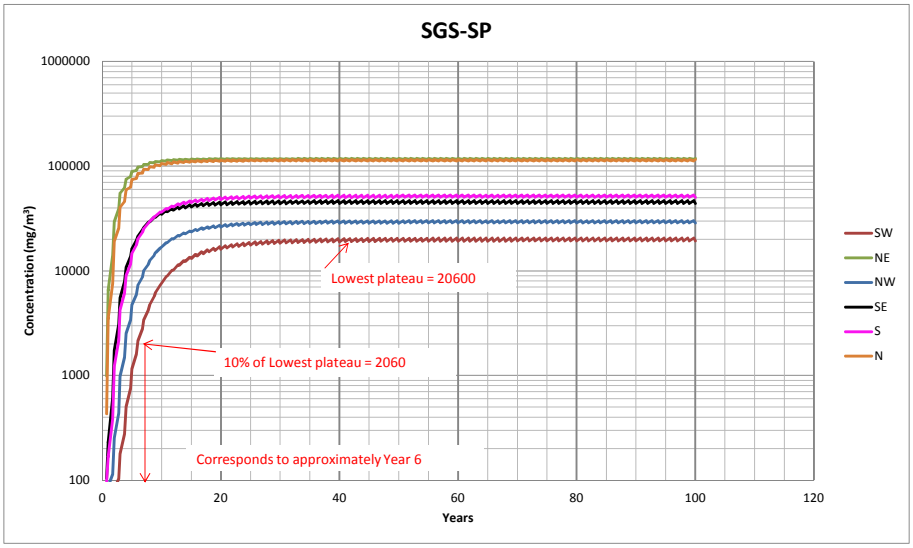
amec

Project: 1420112012	**Figure 10**
By: MZ	**Simlated Concentrations at Monitoring Points and in SVE Influent for**
Date: 04/20/12	**Remote Release with Both SGS-Well and SGD-Well in Extraction Mode**

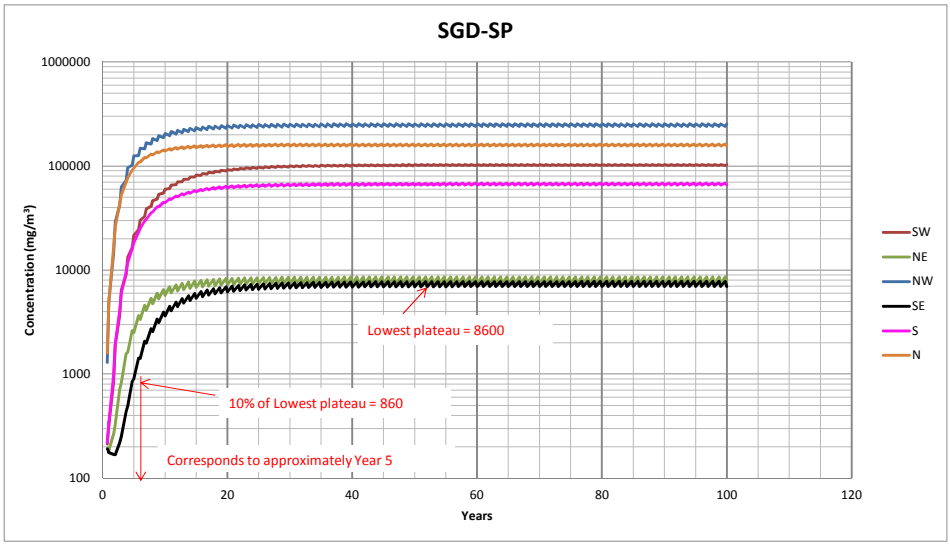


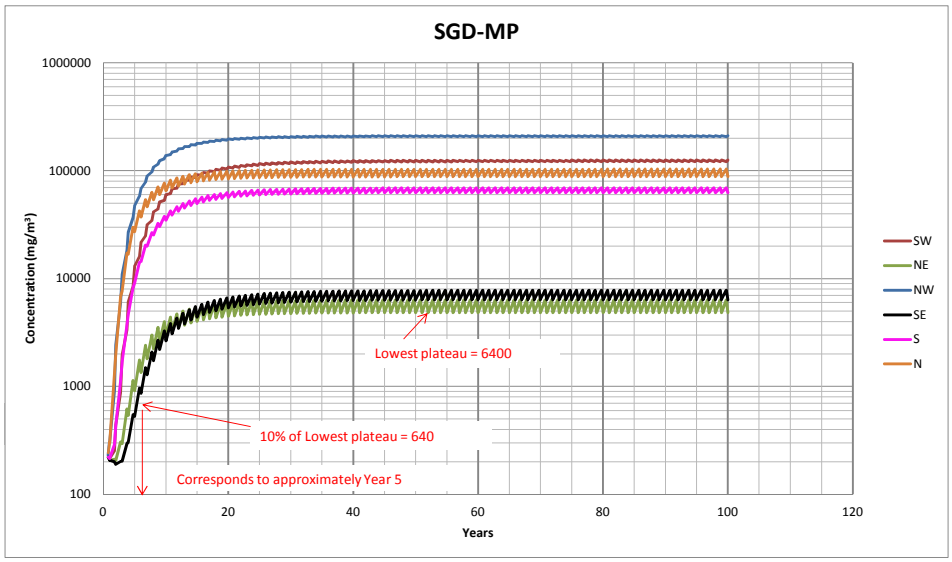
Locations of Simulated Releases in Unit B



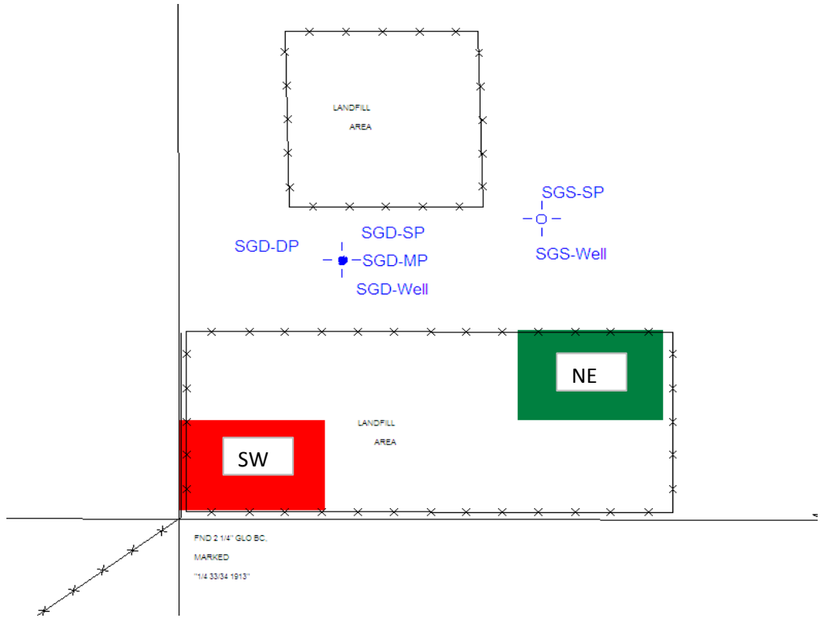


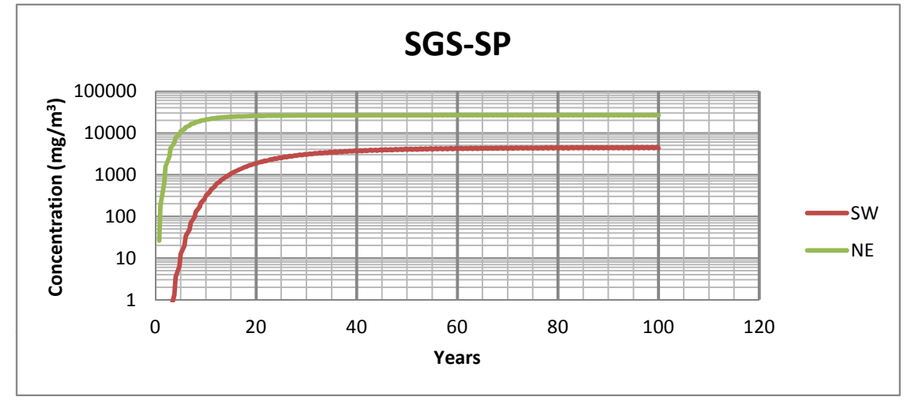
Project: 1420112012	**Figure 11A**
By: MZ	**Simulated Freon-11 Concentrations at SGS-Well and SGS-SP with SVE Operating at Minimum Operational Parameters**
Date: 03/27/12	

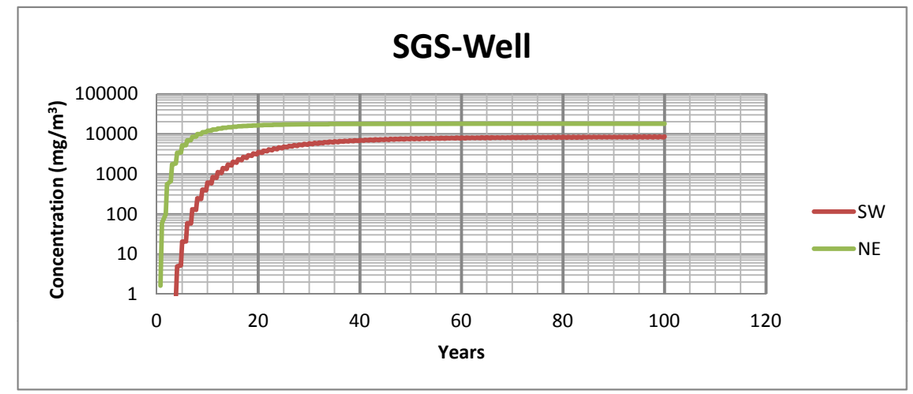


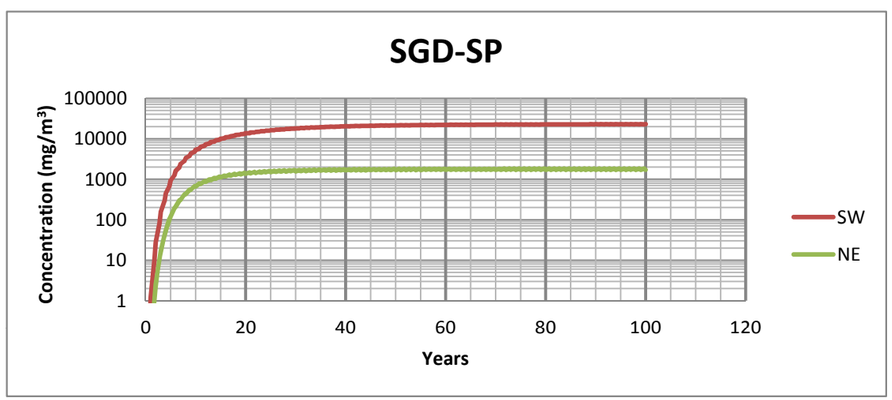


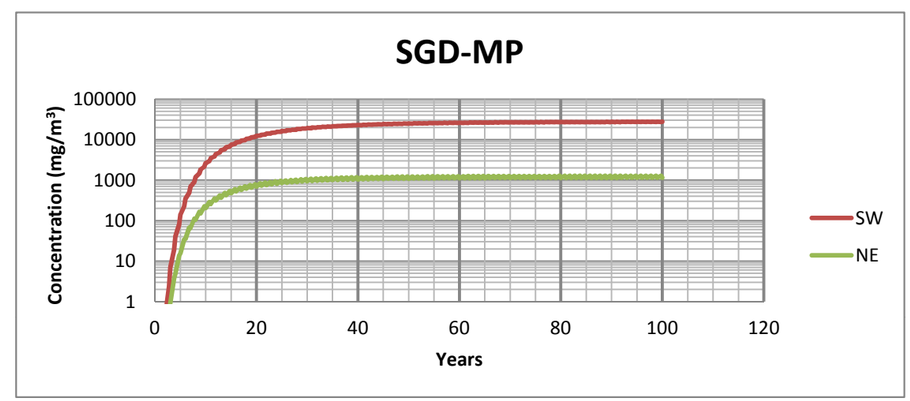
Project: 1420112012	**Figure 11B**
By: MZ	**Simulated Freon-11 Concentrations at SGD-SP and SGD-MP with SVE Operating at Minimum Operational Parameters**
Date: 03/27/12	





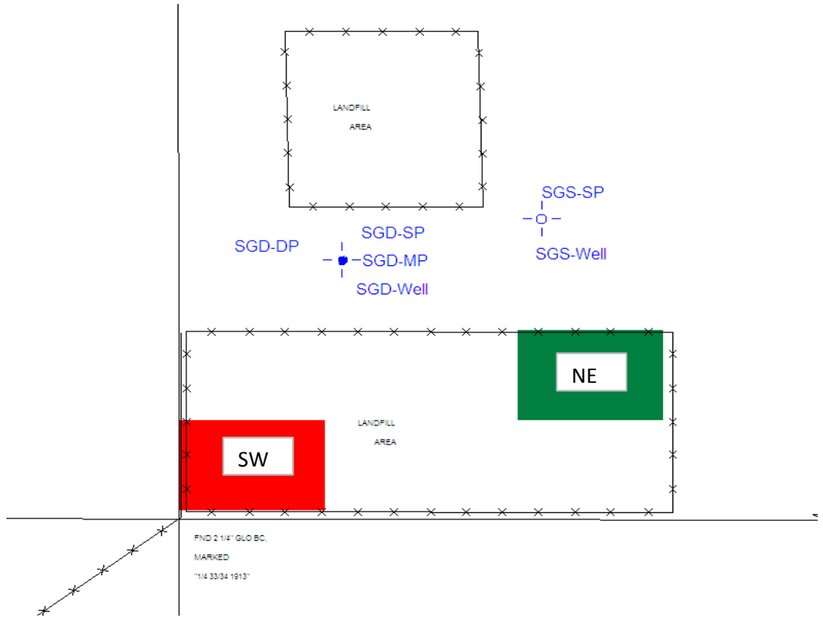


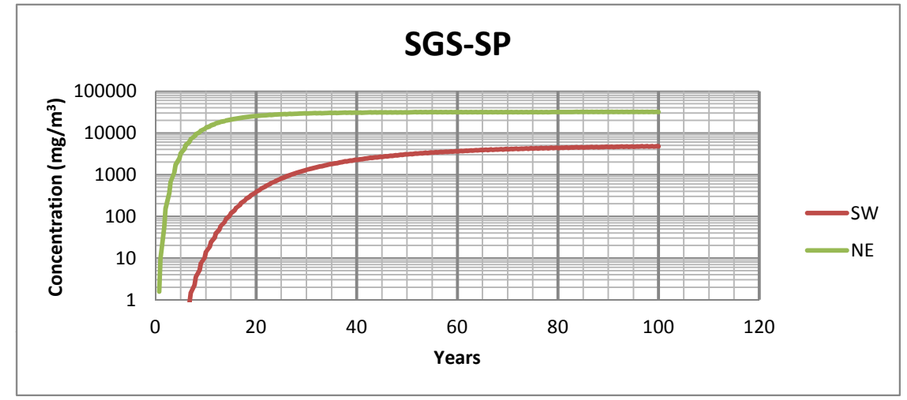


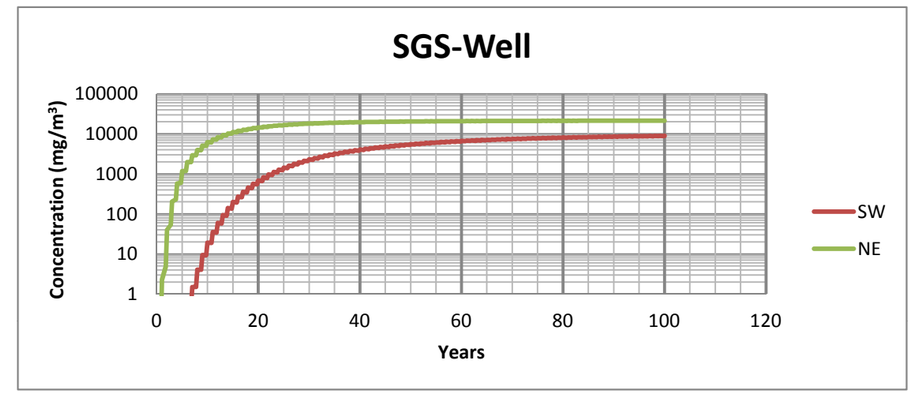


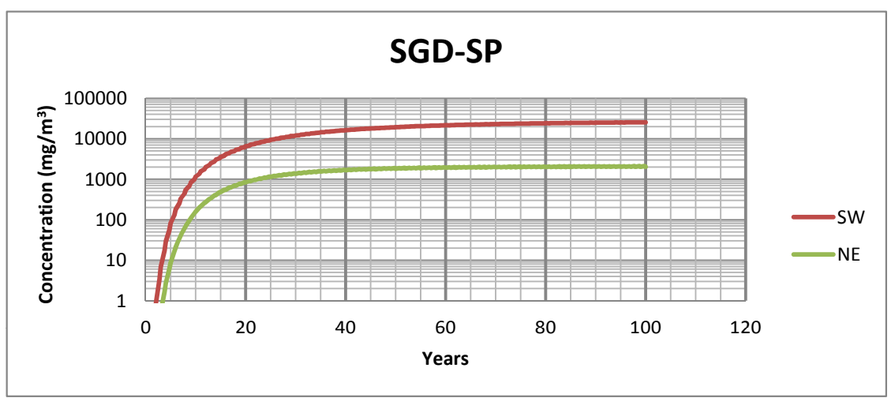
SIMULATED CARBON TETRACHLORIDE CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

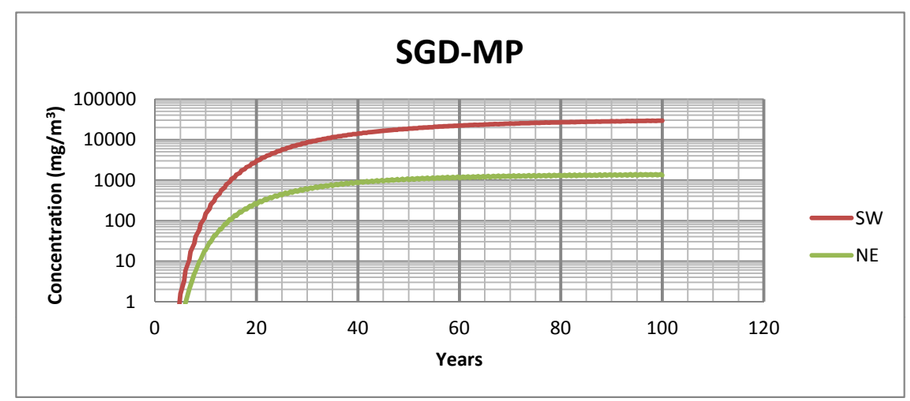
By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 12





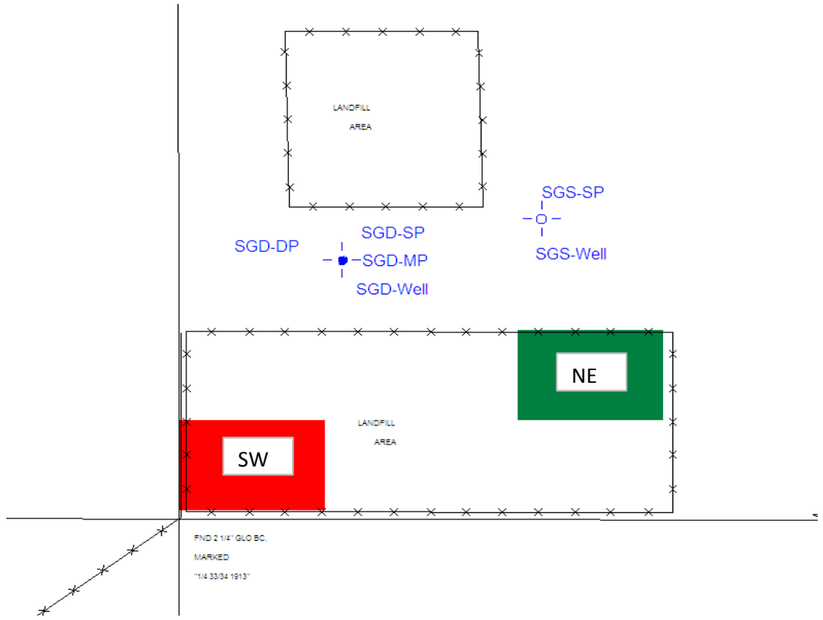


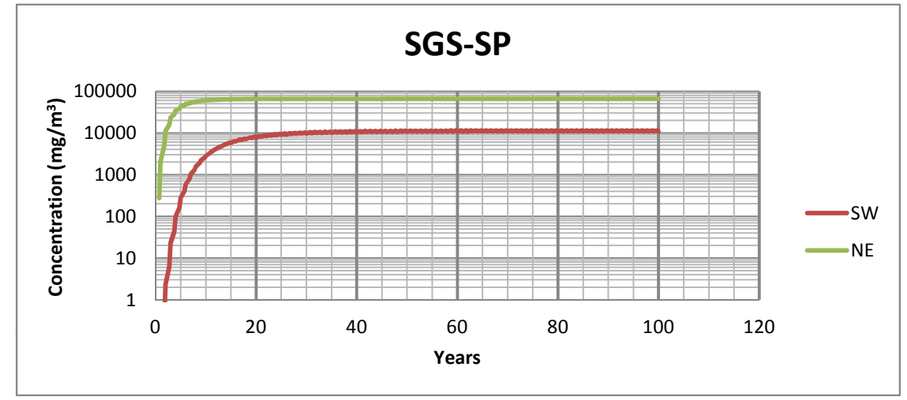


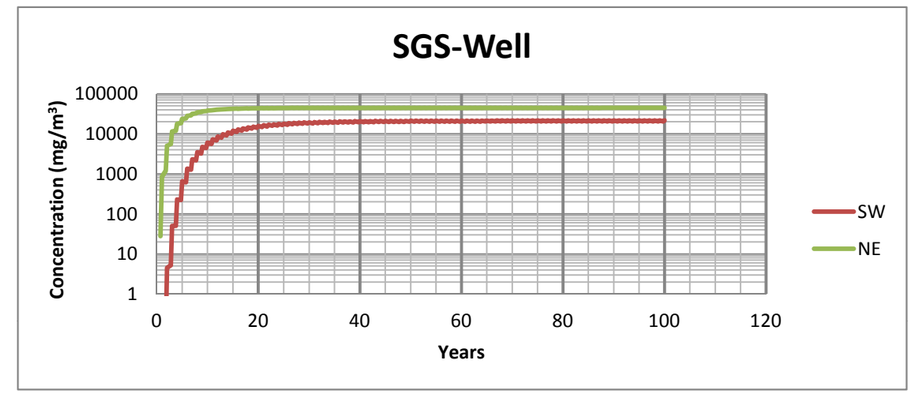


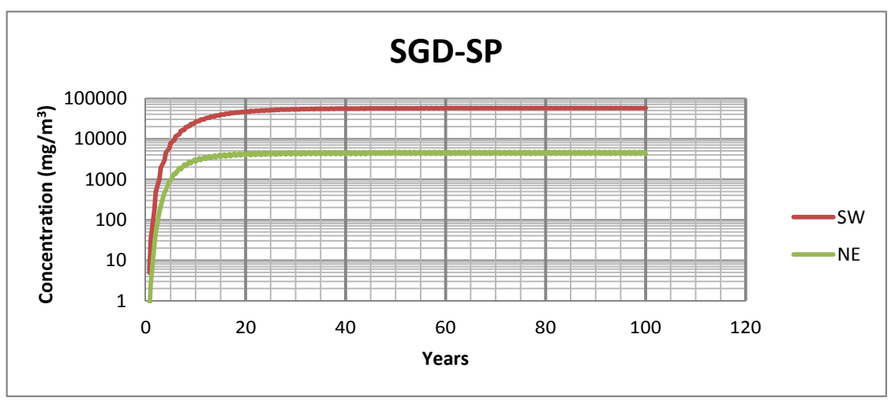
SIMULATED CHLOROFORM CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

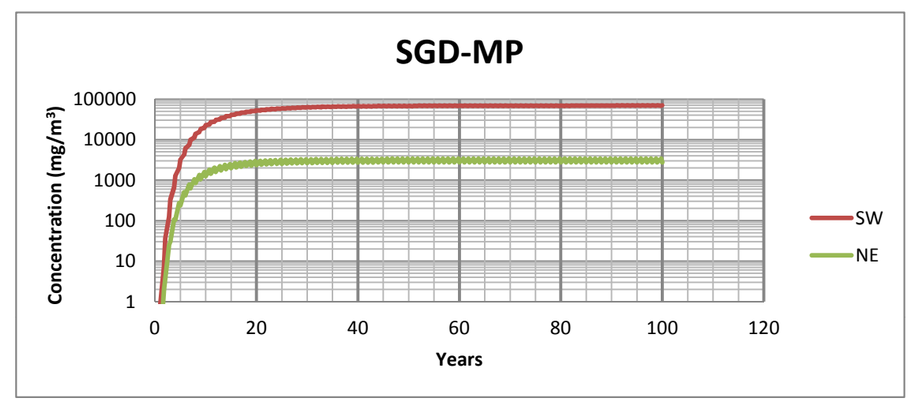
By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 13





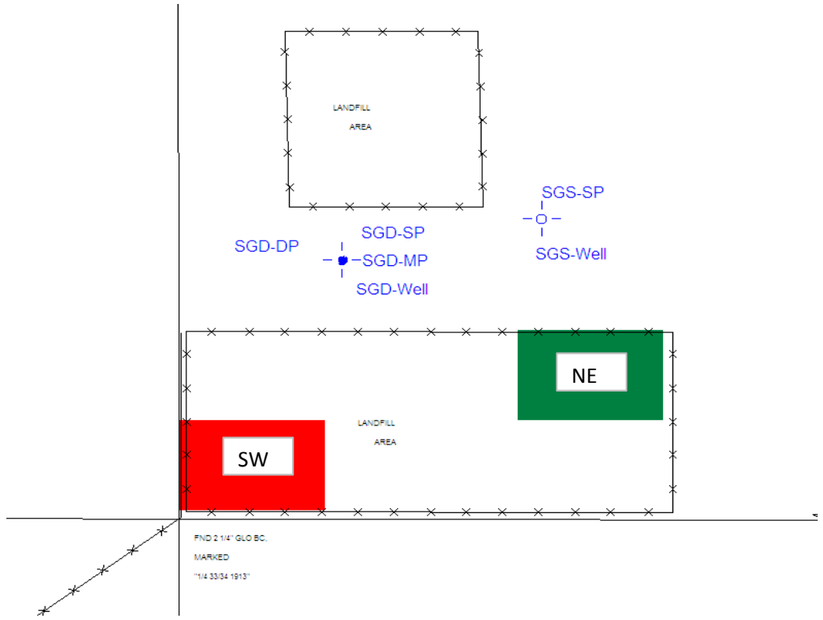


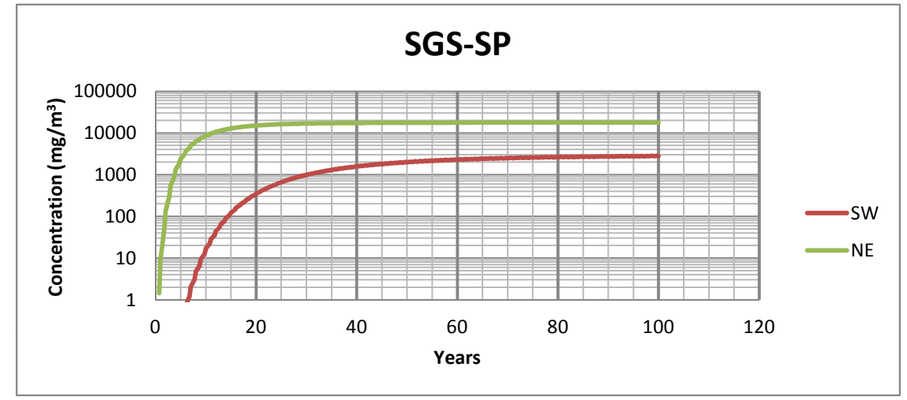


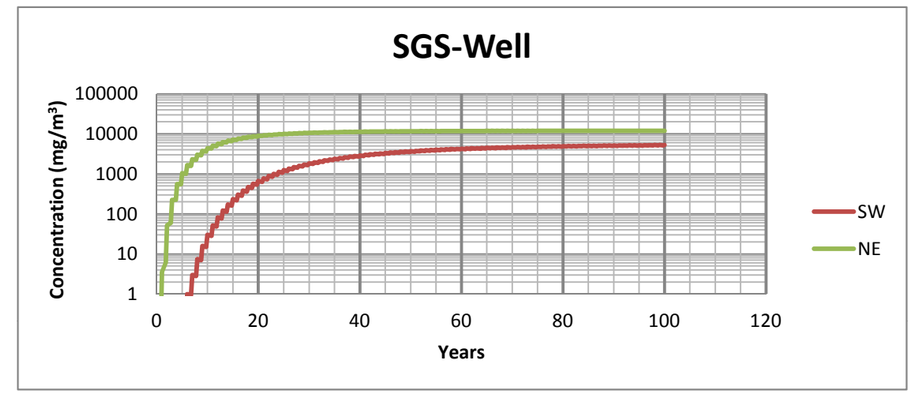


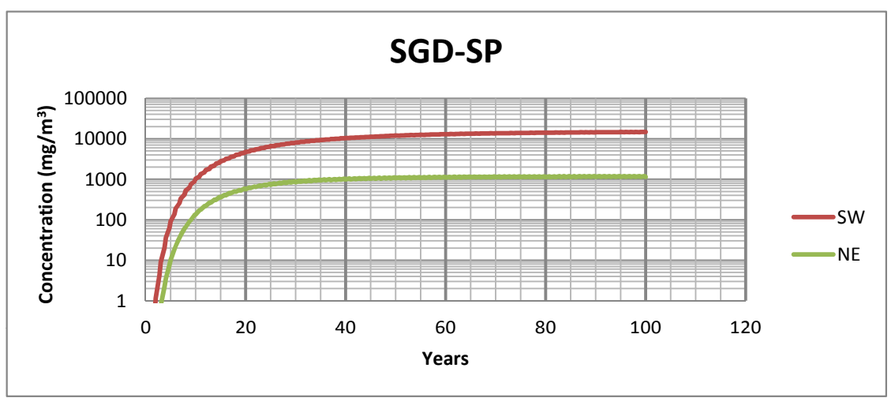
SIMULATED 1,1-DICHLOROETHENE CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

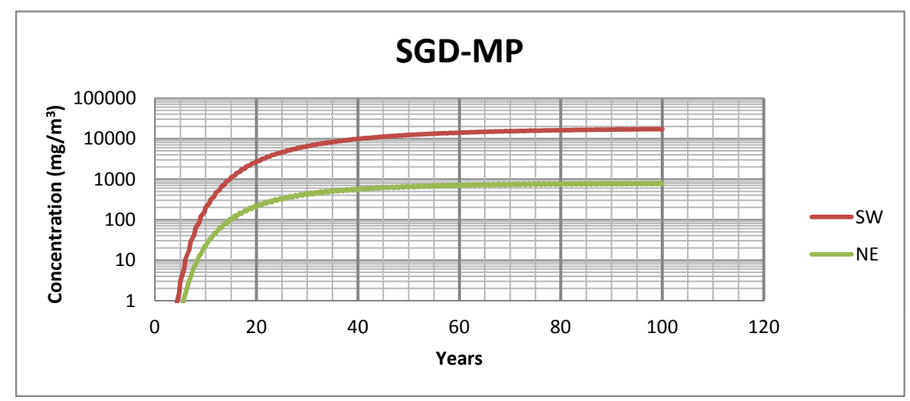
By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 14





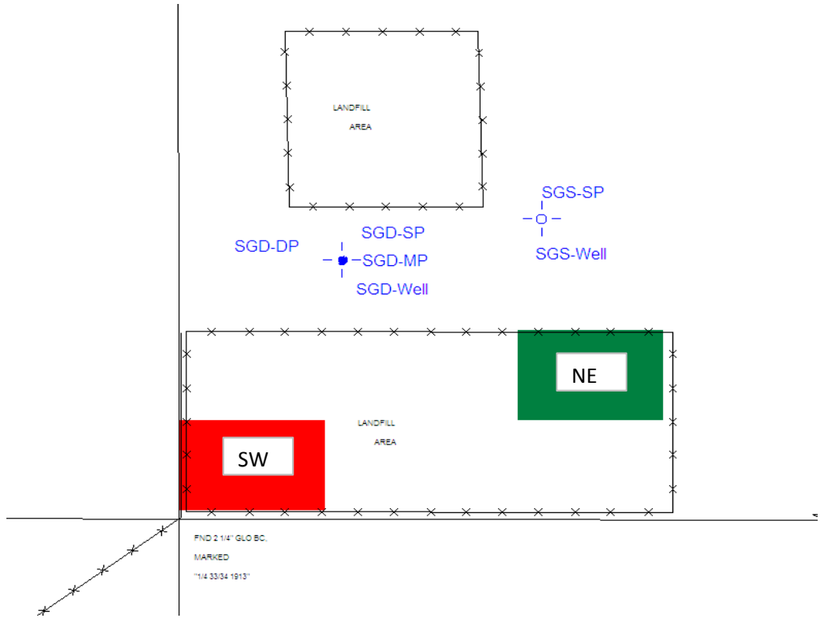


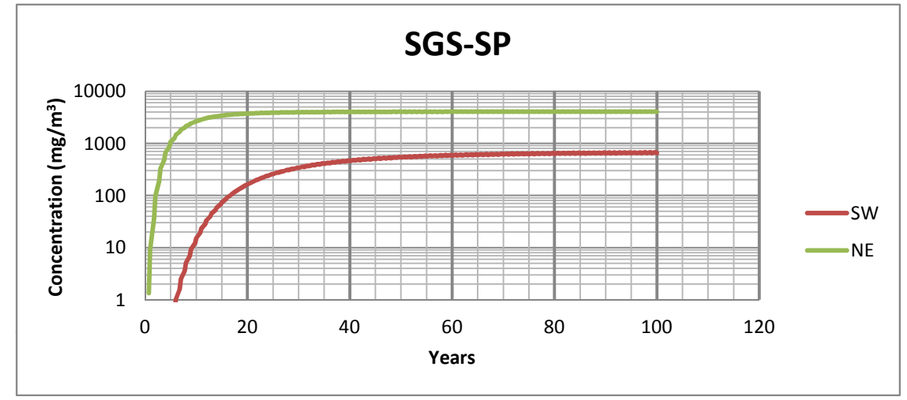


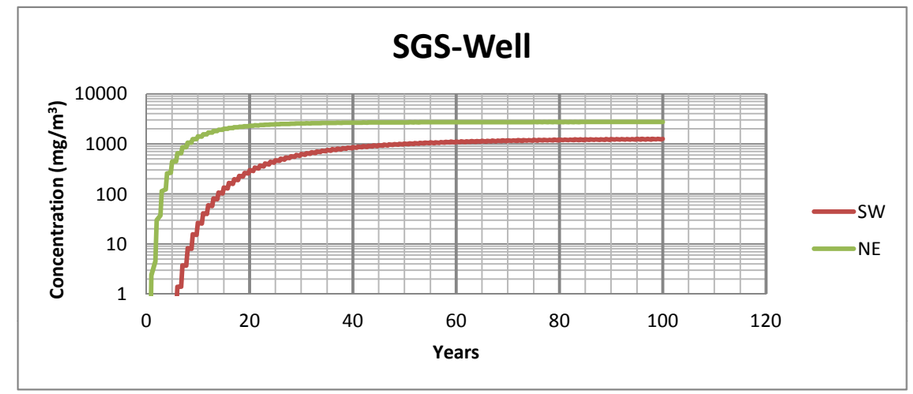


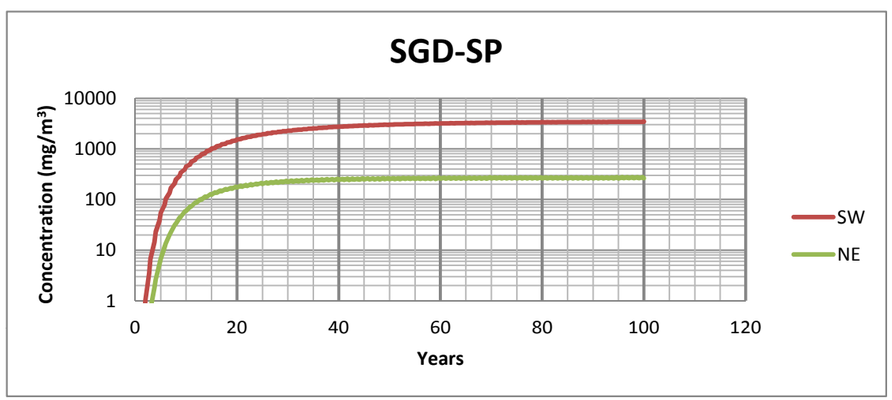
SIMULATED METHYLENE CHLORIDE CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

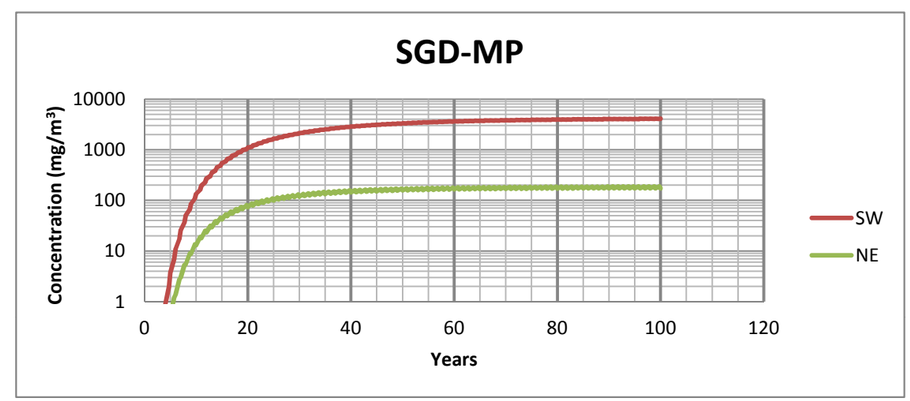
By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 15





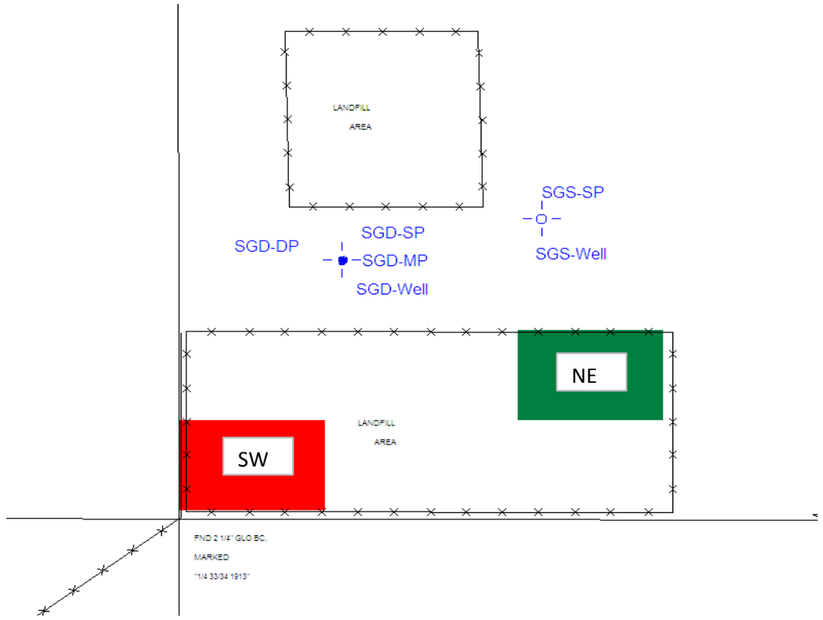


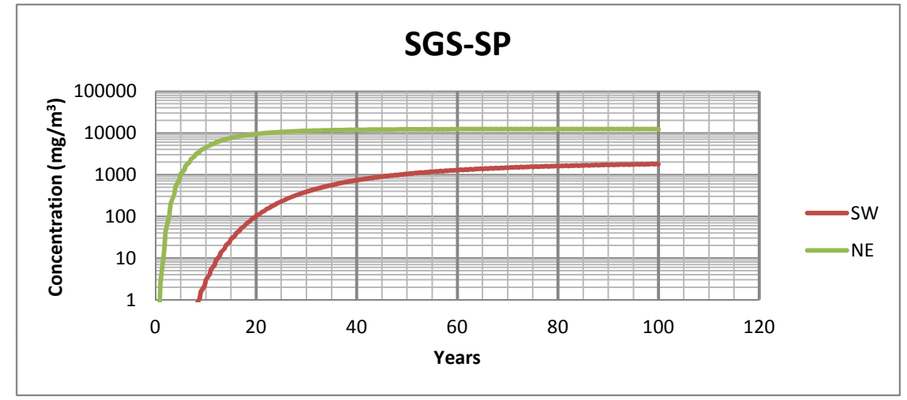


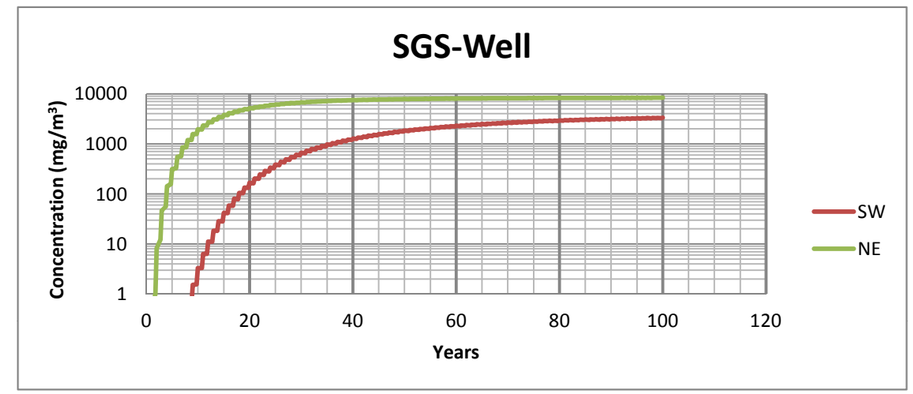


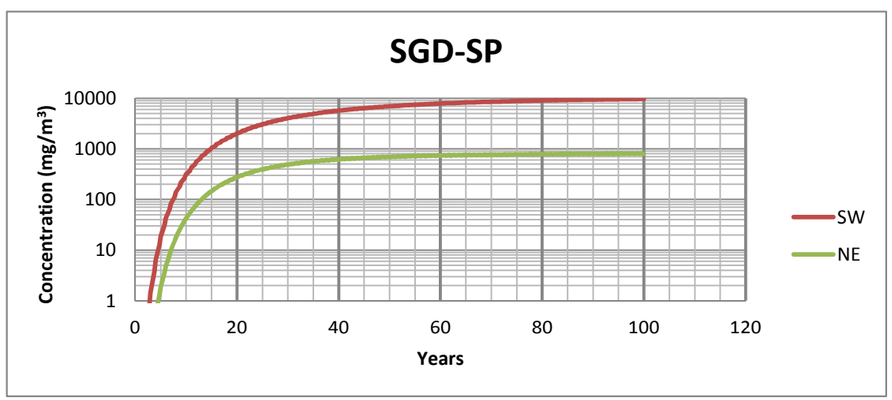
SIMULATED TETRACHLOROETHENE CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

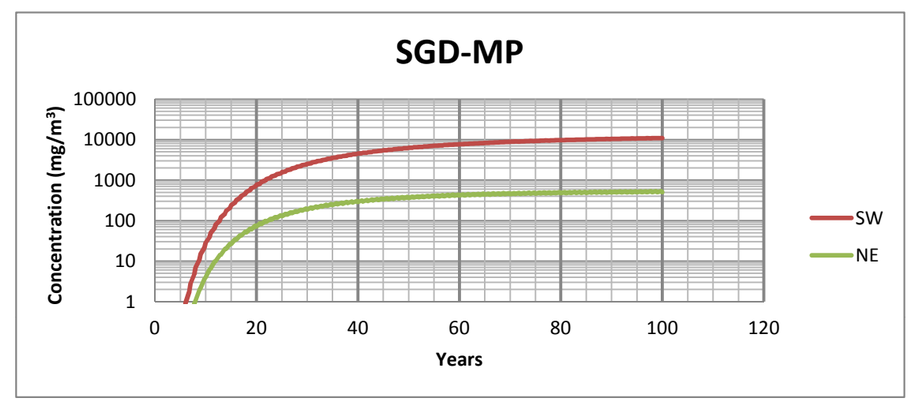
By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 16











SIMULATED TRICHLOROETHENE CONCENTRATIONS AT MONITORING POINTS AND IN SVE INFLUENT WITH SVE OPERATING AT MINIMUM OPERATIONAL PARAMETERS

By: MZ	Date: 03/28/12	Project No.: 1420112012
amec		Figure 17

ATTACHMENT 1

Groundwater Protection Level (GPL) Calculations

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Carbon tetrachloride
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			1.25	4
S (water solubility, mg/l)			790	1100
Koc (L/Kg)			174	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			2000	2000
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			5	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Carbon tetrachloride

GPL (mg/kg) = 12705.26

Saturation conc. (mg/kg) 766.50

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon Aquifer Water Quality Standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Chloroform
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			0.15	4
S (water solubility, mg/l)			7900	1100
Koc (L/Kg)			39.8	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			2000	2000
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			80	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Chloroform

GPL (mg/kg) = 46144.20

Saturation conc. (mg/kg) 1743.82

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon Aquifer Water Quality Standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				1,1-Dichloroethylene(DCE)
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			1.07	4
S (water solubility, mg/l)			2300	1100
Koc (L/Kg)			58.9	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			2000	2000
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			7	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

1,1-Dichloroethylene(DCE)

GPL (mg/kg) = 7168.61

Saturation conc. (mg/kg) 1092.59

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon Aquifer Water Quality Standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Methylene chloride
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			0.0898	4
S (water solubility, mg/l)			13200	1100
Koc (L/Kg)			11.7	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			2000	2000
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			4.3	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Methylene chloride

GPL (mg/kg) = 713.45

Saturation conc. (mg/kg) 1276.37

GPL based upon risk based water quality standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Tetrachloroethylene (PCE)
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			0.754	4
S (water solubility, mg/l)			200	1100
Koc (L/Kg)			155	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			1500	1500
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			5	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Tetrachloroethylene (PCE)

GPL (mg/kg) = 11683.17

Saturation conc. (mg/kg) 159.67

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon Aquifer Water Quality Standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Trichloroethylene (TCE)
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			0.422	4
S (water solubility, mg/l)			1100	1100
Koc (L/Kg)			166	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			2000	2000
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			5	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Trichloroethylene (TCE)

GPL (mg/kg) = 15388.79

Saturation conc. (mg/kg) 855.95

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon Aquifer Water Quality Standard

8/12/2008

Model Inputs

			Calculation values	Data Enter
Select chemical name from drop down list				Enter chemical properties
Ct = Initial total soil contamination, ug/kg (ug/kg = (ug/l)/Pb)			100	100
Kh (dimensionless)			4	4
S (water solubility, mg/l)			1100	1100
Koc (L/Kg)			160	160
T1/2 (d) (vadose zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
T1/2 (d) (groundwater zone)	(enter 100,000 if no biodegradation, 1000 for BTEX)		100000	100000
Select Soil Type from drop down list				Sand
Φ(total porosity)		(minimum GPL default = .25)	0.375	0.25
Pb (g/cm^3) (dry bulk density)		(minimum GPL default = 1.5	1.66	1.5
foc (vadose zone)		(minimum GPL default = .001)	0.004	0.004
foc (aquifer)			0.004	0.004
$Dg^{a\ (cm2/d)}$	(gaseous diffusion coefficient)	(7000 = default)	7000	7000
$D1^{w(cm2/d)}$	(liquid diffusion coefficient)	(.7 = default)	0.7	7.00E-01
d(diffusion layer thickness,cm)		(.5 = default)	0.5	0.5
θ (vol/vol)= moisture content		(minimum GPL default = .15)	0.054	0.15
Jw (water flux- cm/d)		(minimum GPL default = .007)	0.007	0.007
time step (days) vary until output graphs shows complete curve, Jury 1 solution)			1500	1500
L (cm)(depth of incorporation- Jury 1 solution)			457.2	457.2
Z -cm(depth to water, or depth of interest, Jury 1 solution)			19812	19812
depth profile time (d), Jury 2 solution)			3650	3650
total vadose zone depth (cm, Jury 2 solution)			5000	5000
Distance to compliance point (Sc) (meters)		(minimum GPL default = 30)	30	30
Release width (w) (meters)		(minimum GPL default = 10)	10	10
Well screen interval (s) (meters)		(minimum GPL default = 8.2)	8.2	8.2
Water Quality Standard (ug/l)- see note regarding standard			150	150
Groundwater velocity (cm/d) (actual velocity not Darcy velocity)		(minimum GPL default = 10)	10	10
Infiltration rate outside of source area (cm/d)		(minimum GPL default = .007)	0.007	0.007

Run GPL

Enter chemical properties

GPL (mg/kg) = 466845.21

Saturation conc. (mg/kg) 1590.63

GPL exceeds saturation, discuss with specific ADEQ Program

GPL based upon risk based water quality standard