



**SAMPLING AND ANALYSIS PLAN FOR CORRECTIVE  
ACTION FOR**

**BLUE HILLS DISPOSAL FACILITY  
COALINGA, CALIFORNIA**

**County of Fresno  
Department of Public Works and Planning**

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## TABLE OF CONTENTS

<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Surface Water Monitoring .....	1
1.2 Unsaturated Zone Monitoring .....	1
<b>2.0 BACKGROUND.....</b>	<b>3</b>
2.1 Facility Background .....	3
2.2 Previous Environmental Investigations .....	4
<b>3.0 SITE SETTING.....</b>	<b>7</b>
3.1 Land Use .....	7
3.2 Topography .....	7
3.3 Climate .....	7
<b>4.0 GEOLOGY.....</b>	<b>9</b>
4.1 Regional Geology .....	9
4.2 Site Geology.....	9
<b>5.0 HYDROGEOLOGY.....</b>	<b>10</b>
5.1 Regional Hydrogeology .....	10
5.2 Site Hydrogeology .....	10
5.2.1 Surface Water .....	10
5.2.2 Groundwater .....	10
5.2.2.1 Water Bearing Zones.....	11
5.2.2.2 Groundwater Monitoring Network .....	12
5.2.2.3 Groundwater Occurrence.....	12
5.2.2.4 Groundwater Flow .....	13
<b>6.0 GROUNDWATER QUALITY MONITORING PARAMETERS AND SAMPLING FREQUENCY.....</b>	<b>14</b>
<b>7.0 FIELD SAMPLING PLAN .....</b>	<b>17</b>
7.1 Project Manager .....	17
7.2 Peer (QA/QC) Reviewer .....	17
7.3 Technical Manager .....	17
7.4 Engineer.....	17
7.5 Health and Safety Officer.....	18
7.6 Database Manager .....	18
7.7 Field Sampler .....	18
7.8 Sampling Schedule.....	18
7.9 Enforcement and Inspections .....	18
7.10 Pre-Field Activities .....	19
7.10.1 Site-Specific Health and Safety Plan.....	19
7.10.2 Sample Collection Preparation.....	19
7.10.3 Field Sampling Forms and Writing Instruments .....	20
7.11 Equipment Calibration .....	20
7.12 Latex Sampling Gloves.....	21
7.13 Equipment Decontamination.....	21
7.14 Groundwater Elevation Survey .....	22
7.15 Well Depths .....	22
7.16 Well Purging .....	23
7.16.1 Low-Flow Standard Operating Procedure.....	23
7.17 Purge Water Disposal.....	25

## TABLE OF CONTENTS (Continued)

7.18	Well Sampling.....	25
7.18.1	Flow Rates.....	25
7.18.2	Spillage.....	25
7.18.3	Sample Container Filling.....	25
7.19	Sample Containers and Preservation.....	25
7.19.1	VOCs.....	26
7.19.2	Metals.....	26
7.20	Sample Handling.....	26
<b>8.0</b>	<b>QUALITY ASSURANCE PROJECT PLAN.....</b>	<b>28</b>
8.1	Chain-of-Custody Document.....	28
8.2	Quality Control.....	28
8.2.1	Field Quality Assurance Procedures.....	28
8.2.1.1	Trip Blanks.....	28
8.2.1.2	Blind Duplicate Samples.....	29
8.2.2	Laboratory Quality Assurance Procedures.....	29
8.3	Data Quality Objectives.....	30
8.3.1	Specify Tolerable Limits on Decision Errors.....	31
8.3.2	Data Measurement Objectives.....	32
8.3.3	Precision, Accuracy, Representativeness, Completeness, and Comparability Criteria.....	32
8.3.4	Laboratory Reporting Limits.....	34
8.3.5	Holding Times and Preservatives.....	34
8.3.6	Quality Control Analyses.....	34
8.3.7	Documentation and Records.....	35
<b>9.0</b>	<b>DATA EVALUATION PLAN.....</b>	<b>36</b>
9.1	Statistical Evaluation Plan.....	36
9.1.1	Trend Analysis Procedures For Inorganic Constituents, Metals, Dicamba, and MCPD.....	36
9.1.2	Handling Non-Detects.....	37
9.1.3	Mann-Kendall Trend Analysis/Sen's Slope Plots.....	37
<b>10.0</b>	<b>REPORTING.....</b>	<b>38</b>
<b>11.0</b>	<b>CORRECTIVE ACTION PROGRAM SUMMARY.....</b>	<b>40</b>
<b>12.0</b>	<b>COMPLIANCE PERIOD.....</b>	<b>42</b>
<b>13.0</b>	<b>FINANCIAL ASSURANCE.....</b>	<b>43</b>
<b>14.0</b>	<b>REFERENCES.....</b>	<b>44</b>
<b>15.0</b>	<b>LIMITATIONS.....</b>	<b>47</b>

**TABLE OF CONTENTS (Continued)****LIST OF TABLES**

Table 1	Waste Disposal List
Table 2	Construction Details of Monitoring Wells
Table 3	Water Level Elevations
Table 4	Corrective Action Program Monitoring Parameters
Table 5	General Minerals Analytical Results
Table 6	Chlorophenoxy Herbicides Analytical Results
Table 7	Organochlorine Pesticides Analytical Results
Table 8	Polychlorinated Biphenyls, Dioxins, and Furans Analytical Results
Table 9	Volatile Organic Compounds Analytical Results
Table 10	Metals Analytical Results
Table 11	Organ-Phosphorus Pesticides Analytical Results
Table 12	Base Neutral and Acid Extractable Compounds Analytical Results
Table 13	Sample Handling Requirements

**LIST OF FIGURES**

Figure 1	Location Map
Figure 2	Site Map
Figure 3	Groundwater Elevation Contour Map Ss1
Figure 4	Composite Hydrograph

**Note:** Tables and Figures appear at the end of report.

**LIST OF APPENDICES**

APPENDIX A	WATER SAMPLE FIELD DATA SHEETS
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## 1.0 INTRODUCTION

This groundwater sampling and analysis plan (SAP) was prepared on behalf of the County of Fresno Public Works and Development Services Department for the Blue Hills Disposal Facility, located in Fresno County, California (Figure 1). This SAP supersedes previous groundwater monitoring plans dated March 1996 (amended August and October 1998) and the draft revised groundwater monitoring plan dated July 2003 (EMCON, 1996a; 1998a, 1998b; ValleyGeo, 2003a). This SAP has been developed to support a post-closure permit and is to be used in conjunction with the Corrective Action Program (CAP) set forth in the draft *Evaluation Monitoring Program, Engineering Feasibility Study, and Corrective Action Plan, Blue Hills Disposal Facility, Fresno County, California* submitted to the Regional Water Quality Control Board (RWQCB) and the Department of Toxic Substance Control (DTSC) in August 2003 (ValleyGeo, 2003b). The CAP is summarized in Section 11 of this SAP.

The Blue Hills Disposal Facility is managed by the County of Fresno Department of Public Works and Planning in accordance with California Code of Regulations (CCR) Titles 22 and 23 that are often referred to colloquially as Article 6 and Article 5, respectively. Title 22 is administered by the DTSC and Title 23 is administered by the State Water Resources Control Board (SWRCB) through local RWQCB offices. Although administered by different State agencies, the monitoring requirements specified in Title 22 and Title 23 are equivalent, with a minor exception [Title 23 CCR 2550.7(e)(12)(B)]. The goals of Title 22 and Title 23 include the protection of human health and the environment from hazards posed by waste disposal and assurance that wastes are managed in a manner that is environmentally protective. The current site specific Waste Discharge Requirements (WDR) Order No. 99-087 for the Blue Hills Disposal Facility was adopted by the RWQCB on June 11, 1999 (RWQCB, 1999).

As part of the Blue Hills Disposal Facility post-closure permitting process, the County of Fresno is required to submit a groundwater sampling and analysis plan for the site that meets guidelines contained in: 1) Title 22, Chapter 20, Section 66264.97 et seq. (22 CCR 66264.97) and 22 CCR 66264.100 et seq.; 2) Title 40, Code of Federal Regulations Part 258 Subpart E; and 3) WDR Order No. 99-087. This SAP has been prepared to fulfill the above requirements using the DTSC guidance document *Guidance Document Monitoring Requirements for Permitted Hazardous Waste Facilities* (DTSC, 2001).

### 1.1 Surface Water Monitoring

There are no surface water bodies at or near the Blue Hills Disposal Facility. In addition, as a consequence of low rainfall conditions at the site, ephemeral streams flow only during exceptionally wet years. Because of this, no surface water monitoring or surface water quality protection standards (WQPS) are proposed for the Blue Hills Disposal Facility.

### 1.2 Unsaturated Zone Monitoring

Available methods for collecting potential soil-pore liquid samples from subsurface soils in semi-arid environments such as that found beneath the Blue Hills Disposal Facility are ineffective. Consequently collection of soil-pore liquid samples is not proposed as part of the SAP at the

site. Therefore, vadose zone soil-pore liquid WQPS are not being proposed for the Blue Hills Disposal Facility.

During periodic sampling, however, the Waste Management Area (WMA) should be inspected for leachate seeps. If leachate seeps are observed, they will be noted in the groundwater monitoring reports. If possible, samples of leachate will be collected and analyzed for constituents of concern, monitoring parameters, and general chemistry parameters (Section 6.0). Fresno County proposes that leachate monitoring in conjunction with groundwater monitoring is an acceptable replacement for vadose zone monitoring system for this particular site.

## 2.0 BACKGROUND

### 2.1 Facility Background

The now closed Blue Hills Disposal Facility (Figure 1) was established by the County of Fresno in 1973 as a limited Class I solid waste disposal facility in response to state and agricultural interest requests to provide a safe repository for empty herbicide and pesticide containers generated by the local and statewide agricultural community. The site was selected based on input by state and private petroleum geologists familiar with the area and from recommendations made by state and federal agencies. At the time of site selection, groundwater was believed to be present at a depth of 700 to 1,000 feet beneath the proposed landfill site and was not considered to be connected with usable aquifers beneath the floor of the San Joaquin Valley, to the east.

The Blue Hills Disposal Facility encompasses approximately 32 acres, however, the WMA is comprised of less than 6-acres, and waste has been disposed of in only 4 of the 6 acres (Figure 2). The WMA is comprised of four clustered waste management units (WMUs); 1) the First Main Trench; 2) the Second Main Trench; 3) the Third Main Trench; and 4) the Dust and Powder area. Dry pesticides, in dust and powder form, were disposed of and covered with soil in the Dust and Powder Area. Empty pesticide containers (some containing a residue in liquid or powder form) were disposed of in the three main trenches where they were crushed and covered with soil. Each of these trenches has been conservatively estimated to have been no more than 25 feet deep. The First Main Trench was opened in November 1973 and closed in November 1975. The Second Main Trench was opened in April 1976 and closed in November 1980. The Third Main Trench was opened in April 1981 and closed in October 1991.

By 1982 when major changes in regulatory requirements occurred, disposal activities in the First and Second Main Trenches and the Dust and Powder Area had already been terminated. As a consequence of the "new" regulatory requirements, the County of Fresno decided to accept only dry, empty pesticide containers for placement in the Third Main Trench. This practice was amended further, and beginning in the spring of 1983, only non-hazardous, triple-rinsed pesticide containers were accepted at the Blue Hills Disposal Facility.

As discussed above, the Blue Hills Disposal Facility was conceived and developed to meet the needs of state and local agricultural interests and to provide a site for disposal of used pesticide containers. To satisfy this need, beginning in 1973, the site was opened for 4 weeks each year, 2 weeks in the spring and 2 weeks in the fall. From time to time, however, and under the encouragement of the County Agricultural Commissioner, the U.S. Environmental Protection Agency (USEPA), and the State of California, the site was opened to receive special wastes. For example, at the request of the USEPA, over 3 tons of toxic waste generated by the Federal Government from the Territory of Guam was disposed of at the site in 1974. Additionally, the State of California used the site to deposit chemical spill material resulting from highway accidents. Although such disposal activities occurred, the bulk of the materials disposed of at the site consisted essentially of empty pesticide containers. A list of contaminants of concern known to have been disposed at the Blue Hills Disposal Facility is presented in Table 1.

County of Fresno records indicate that approximately 90,000 cubic yards of waste (mostly uncrushed containers) were disposed at the site from 1973 through 1984. The County of Fresno has estimated that this volume was reduced to approximately 30,000 cubic yards as the containers were crushed during the disposal process. Based on annual uncrushed volume records maintained by the County, approximately 20 percent of the total volume was placed in the First Main Trench, 60 percent was placed in the Second Main Trench, and 20 percent was placed in the Third Main Trench. This breakdown assumes that the volume of material disposed of in the Dust and Powder Area is very small compared to the volume placed in the trenches.

All waste disposal operations at the site ceased in October 1991. Closure construction activities began in September 1992 and were completed on December 1, 1992. The construction report for the final cover placement was submitted in June 1993. Closure of the site included construction of surface drainage control measures, installation of an approved final cover and monitoring the quality of groundwater beneath the site through an existing network of groundwater detection monitoring wells (EMCON, 1986b, 1988, 1993a, and 1993b) (Figure 2).

## **2.2 Previous Environmental Investigations**

Kleinfelder and Associates (Kleinfelder) completed Phase I of a two-phased investigation of the Blue Hills Disposal Facility (Kleinfelder, 1983). The scope of work included: 1) evaluation of existing records of geotechnical and operations information; 2) identification of new data and methodologies in response to a directive issued by the RWQCB; and 3) assessment of possible alternatives and associated costs for future operations and/or closure of the site (Kleinfelder, 1983). In 1983, Kleinfelder completed Phase II of their work which was intended to develop site-specific data required to evaluate the following: 1) stability of embankments; 2) physical properties of the cover material overlying the waste fill; and 3) surface water percolation and potential leachate generation.

The most significant finding of the Phase II investigation by Kleinfelder was the discovery of shallow groundwater beneath the site. Samples of this water, which were encountered approximately 55 feet below ground surface (bgs), were found to contain relatively low concentrations of the pesticides zytron and heptachlor. Additional exploration was then initiated to evaluate the occurrence of groundwater beneath the site and to determine if groundwater found beneath the site was part of a regional water table or a zone of perched groundwater controlled by geologic structure. Repeated subsequent testing of groundwater samples from wells at the site did not detect pesticides.

The field program completed by Kleinfelder included the installation of seven test pits, eight exploratory borings, and five groundwater monitoring wells: B-204A, B-204B, B-204C (which were completed as a well cluster in a single boring), B-206, and B-207 (Figure 2). Monitoring well B-206 has since been decommissioned by grouting. Each of these borings was logged by lithologic and geophysical means. A well construction summary is presented in Table 2.

In 1985, the County of Fresno retained EMCON to conduct additional hydrogeologic studies of the Blue Hills Disposal Facility as required by state and federal agency guidelines. The purpose of this investigation was to evaluate the hydrogeologic characteristics of the uppermost aquifer beneath the site and to evaluate the quality of water within this zone. The scope of work



included the following: 1) a review of data, both published and unpublished; 2) stereoscopic analysis of aerial photographs; 3) geologic mapping (including bulldozer scrapes); 4) installation of exploratory borings and groundwater monitoring wells (E-1A, E-1B, E-1C, E-1D, E-2, E-3, E-4, and E-5 [Figure 2]); 5) laboratory testing of soil and groundwater samples; 6) hydraulic testing of monitoring wells; 7) preparation of a site-specific groundwater monitoring plan; and 8) formulation and presentation of a conceptual, three-dimensional model of stratigraphy, structural geology and hydrogeology of the site. The results of this investigation were presented by EMCON in a November 1986 report entitled *Hydrogeologic Investigation Blue Hills Disposal Site*. Findings from the EMCON 1985-1986 investigation confirmed the previous 1982-1983 findings by Kleinfelder which indicated groundwater beneath the site occurs in sandstone units that are separated by non-water bearing claystone and siltstone units. In addition, EMCON assessed that water reaches the sandstone units mainly by infiltration from direct precipitation, from ponded water, and from runoff in intermittent drainage channels that intersect these sandstone units. Subsequent to the completion of the 1986 investigation, DTSC requested the installation of two additional groundwater monitoring wells (E-6 and E-7) to obtain additional site hydrogeologic information. These wells (E-6 and E-7) were installed by EMCON in August 1987 at the locations shown on Figure 2.

In the summer of 1993, monitoring well B-207 was damaged during the placement of the final landfill cover. Consequently on September 27, 1993, EMCON decommissioned the damaged well by grouting and reinstalled a new replacement well adjacent to the location of the decommissioned well.

In 1995 EMCON installed groundwater monitoring well E-9 and prepared a report titled *Hydrogeologic Update Blue Hills Disposal Facility*, which was issued in March 1996. The results of the 1995 hydrogeologic investigation performed by EMCON, confirmed previous findings that indicate groundwater at the site is contained in dipping sandstone units separated by non-water bearing claystone and siltstone units. Based on DWR regional groundwater level contour maps (1989 and 1993) reviewed by EMCON, and historical site groundwater level contour maps, it was concluded that the groundwater flow direction (northeast) observed beneath the Blue Hills Disposal Facility is similar to the regional groundwater flow direction reported by DWR. The data reviewed by EMCON also indicated that regional groundwater appears to flow toward drainage channels, most of which have a northeasterly flow direction.

Results from the 1995 investigation by EMCON also confirmed that groundwater beneath the center of the site occurs under mounded conditions. Structural analysis of data obtained during the 1995 investigation suggested that mounded groundwater at the site is isolated in an east-west trending structural trough located near the central portion of the site. Reportedly the down dip structural trough is created by a flexure in the subsurface beds. Also this investigation concluded that an inferred blind thrust fault corresponding spatially with a natural drainage channel may be providing a permeable pathway for meteoric water to recharge groundwater located in the structural trough. The low permeability of the sandstone units may further enhance the formation of the groundwater mound, restricting lateral (parallel to strike) groundwater flow as water preferentially flows along the direction of greatest potential head (i.e. northeast and down dip).

In April 2004 ValleyGeo installed groundwater monitoring well E-10 and prepared a report titled *Monitoring Well E-10 Construction Report, Blue Hills Disposal Facility, Coalinga, California*

(ValleyGeo, 2004a). Well E-10 was installed at the request of the DTSC to allow further characterization and to assess groundwater quality of the second groundwater-bearing unit, Ss2, between monitoring wells E-3 and E-9. Groundwater in the Ss2 unit at the location of well E-10 was found to occur in the bottom portion of the formation. The formation was not fully saturated as evidenced from the occurrence of groundwater within the well E-10 screened interval (ValleyGeo, 2004a). Well E-10 provided insufficient groundwater for sampling during subsequent groundwater monitoring events and has only yielded enough groundwater for a full suite of analyses during the third and fourth quarters 2005 (ValleyGeo, 2004b; SECOR, 2006). No volatile organic compounds, chlorophenoxy herbicides, or organo-chlorine pesticides were detected in well E-10 during those two sampling events.

Pursuant to conversations with the DTSC as discussed in a memorandum dated August 1, 2005, the DTSC approved an alternative purging and sampling approach. The alternative approach involved purging well E-10 the first day of sampling, allowing the well to recover for 24 hours, and then obtaining samples for as many of the required parameters as possible with sampling to begin in the following order for the highest priority samples:

Chlorinated Herbicides	EPA Method 8151
Volatile Organic Compounds	EPA Method 8260
Organochlorine Pesticides	EPA Method 8081
Organophosphorus Pesticides	EPA Method 8141

It was understood that water may not be available for all of the high priority samples. Field parameters and other monitoring parameters are obtained during purging to the extent that sufficient water is available.

During the second quarter 2006, after attempting to purge three casing volumes from monitoring well E-10, the well was dewatered on May 9, 2006. At the request of the DTSC the well was allowed to recover for approximately two hours 45 minutes and three - 40ml VOAs were collected for analysis by EPA Method 8260. Monitoring well E-10 contained sufficient water to collect three – 40 ml VOAs before dewatering a second time. On May 10, 2006 a full sample suite for chlorinated herbicides, volatile organic compounds, nitrates, chloride, total organic carbon, and total dissolved solids was recovered from the well approximately 24 hours after initial dewatering. No volatile organic compounds, chlorophenoxy herbicides, or organo-chlorine pesticides were detected in well E-10 during those two sampling events.

Additionally, during the May 10, 2006 sampling session, a RWQCB representative was on site to collect split duplicate samples from well E-10 for analysis of volatile organic compounds and chlorophenoxy herbicides. The results of those analyses were non-detect for these compounds.

### **3.0 SITE SETTING**

The Blue Hills Disposal Facility is located approximately 9 miles northeast of Coalinga in a remote area of western Fresno County (Figure 1). The 32 acre site is situated at the northern extremity of the extensive Coalinga Oil Field. The site is accessed along a private light-duty road that extends through the oil field from Highway 33 (Derrick Avenue), which is located approximately 0.9 miles east of the site. The site is protected from unauthorized entry by a perimeter fence and locked gates.

#### **3.1 Land Use**

Most of the land within at least a 1 mile radius of the site is owned by private oil companies, private interests, or the U.S. Government. The principal land use in the vicinity of the Blue Hills Disposal Facility is oil production as evidenced by the abundance of active and abandoned oil wells. In addition to oil production, the lands surrounding the Blue Hills Disposal Facility are occasionally used for light grazing of livestock.

The site is located on the east side of the Coalinga Oil Field's northern tip. The oil field was initially developed at the turn of the century (Arnold, 1909; Arnold and Anderson, 1910). By June of 1945, 984 oil wells had been drilled in the eastside area (Kaplow, 1945). Subsequently, additional oil wells were drilled to further develop the oil resources of the area. Between 1948 and 1954, before the acquisition of the Blue Hills Disposal Facility by the County of Fresno, four exploratory oil borings were installed on the site. Three of these borings were completed as oil wells, the fourth boring was abandoned as a dry hole. The three completed oil wells were destroyed by Chevron Oil Company using cement-grouting techniques when oil production in these wells declined. Destruction of these wells occurred before acquisition of the site by the County of Fresno.

#### **3.2 Topography**

The site is located on the eastern slopes of the California Coast Range Mountains. Elevations at the site vary from a high of 980 feet above mean sea level (MSL) along the western boundary to a low of approximately 820 feet above MSL at the eastern site boundary (Figures 1 and 2). The topography of the site varies from gentle to steep hill side slopes, with gullies draining toward the northeast. The average slope at the site is approximately 12 percent.

#### **3.3 Climate**

Based on weather data from a weather station located approximately 9 miles south of the site in the city of Coalinga, the Blue Hills Disposal Facility is located in a semi-arid area characterized by cool winters with moderate amounts of precipitation and hot summers with only occasional precipitation. The local annual mean precipitation is approximately 7 inches per year as reported by the Western Regional Climate Center in Reno, Nevada. The maximum monthly precipitation is 2.03 inches in January, and the minimum monthly precipitation is 0.01 inches in July. The mean annual temperature at the site is 64.8° Fahrenheit. The mean maximum

annual temperature occurs in July (82.9° Fahrenheit) and the mean minimum annual temperature occurs in December (46.57° Fahrenheit).

Wind data obtained from the Lemoore Naval Air Station (the closest station reporting this data) and which is presented in data available from the Western Regional Climate Center in Reno, Nevada, indicates that prevailing winds blow from the northwest at approximately 6.4 miles per hour (mph). The windiest period of the year is in June. During this month the wind speeds are between 10 to 60 mph. The calmest period of the year is in November when the winds are 0 to 5 mph.

According to climate data available from the Western Regional Climate Center in Reno, Nevada, the pan evaporation rate for Kettleman City, located approximately 33 miles southeast of the Blue Hills Disposal Facility, ranges from 1.59 inches in January to 16.11 inches in July. Except for January, the pan evaporation rate is greater than the precipitation rate at the site.

## 4.0 GEOLOGY

This section describes the regional and site geologic and hydrogeologic conditions of the Blue Hills Disposal Facility. The information presented in this section is based on published reports, previous site findings by others, and from site activities conducted by SECOR. A complete discussion of the stratigraphy within the vicinity of the site can be found in *Hydrogeologic Investigation, Blue Hills Disposal Site, Fresno County, California* (EMCON, 1986a) and *Hydrogeologic Update Investigation Blue Hills Disposal Facility, Fresno County, California* (EMCON, 1996b).

### 4.1 Regional Geology

The Blue Hills Disposal Facility is located on the east-flank of the northwest-trending Coalinga Hills Anticline (Figure 1). The Coalinga Hills Anticline formed due to fault propagation folding above west-vergent blind back-thrusts that propagate off of an east-vergent blind sole thrust. These blind thrusts formed as result of transpressional tectonism along the San Andreas transform fault zone (Namson and Davis, 1988). The Coalinga Anticline is the most prominent structure of the area and has been superimposed on the easterly dipping homoclinal sequence of Tertiary formations bordering the west side of the San Joaquin Valley in the Coalinga region (Adegoke, 1969; Anderson, 1952; Jennings, 1975).

The strata beneath the Coalinga Hills anticline were deposited during transgressive and regressive sea level cycles. Exposed strata in the Coalinga Hills Anticline consist of Mesozoic, Tertiary, and Quaternary (Pleistocene) deposits, in addition to recent alluvial deposits. The units found in the anticline consist of non-marine, poorly-consolidated sandstones and conglomerates, and marine and non-marine siltstones and claystones alternating with marine, fossil-bearing sandstones and conglomerates.

### 4.2 Site Geology

Findings of previous site investigations indicate that stratigraphic beds beneath the site consist predominantly of friable to moderately consolidated interbedded sandstone, siltstone, and claystone layers that are associated with the eastern flank of the Coalinga Anticlinal Complex. These beds strike approximately N45° to 50°W and dip 30°NE, with an orientation relatively constant over the site area. According to the Geologic Map of California (Jennings, 1977), formations exposed at the site are Pliocene in age.

## 5.0 HYDROGEOLOGY

### 5.1 Regional Hydrogeology

Based on local topography most surface streams in the site area drain toward the northeast (Figure 1). At the Blue Hills Disposal Facility, the ephemeral stream draining off the site also trends toward the northeast, which is the same direction, observed for groundwater flow at the site. Based on available data, it appears that groundwater in the region has a preferential flow direction toward drainage channels which for the most part trend northeasterly. These ephemeral drainage channels are also the likely source of recharge to regional groundwater (EMCON 1996b).

### 5.2 Site Hydrogeology

A complete discussion of the hydrogeology in the vicinity of the site can be found in *Hydrogeologic Investigation, Blue Hills Disposal Site, Fresno County, California* (EMCON, 1986a) and *Hydrogeologic Update Investigation Blue Hills Disposal Facility, Fresno County, California* (EMCON, 1996b).

#### 5.2.1 Surface Water

There are no surface water bodies on or near the Blue Hills Disposal Facility. Based on the current landfill grade, surface runoff from storm events that are of sufficient duration to cause surface runoff flows toward an asphaltic concrete drainage channel that surrounds the site and toward a naturally occurring drainage channel near the center of the site. These drainage channels drain runoff down slope towards the northeast.

#### 5.2.2 Groundwater

Groundwater recharge from surface runoff reaches the sandstone units located beneath the site mainly by infiltration from surface flows in ephemeral drainage channels that cross the sandstone units. Infiltration due to ponded water is no longer significant at the site due to the installment of the asphaltic concrete drainage channels that were installed during closure of the site in 1993. The general movement of infiltrating water is vertical through the unsaturated zone of the sandstone. When the infiltrating water reaches an underlying siltstone or claystone barrier, infiltrating water moves along dip until it reaches the saturated zone.

Groundwater at the site occurs in four sandstone units that have been identified at the site during past geologic site investigations (EMCON, 1986a, 1996b). These sandstone units strike approximately N45° to 50°W and dip 30°NE. The sandstone units are identified by increasing depth as Ss1, Ss2, Ss3, and Ss4 (Table 2). These sandstone units are separated from each other by low permeability claystone units that act as aquitards that restrict groundwater flow between water bearing zones. Two naturally occurring surface runoff channels incise the upper sandstone units, Ss1 and Ss2, beneath the site. During quarterly sounding of site monitoring wells, groundwater is typically found only in sandstone units Ss1 and Ss2 (Table 3). Results of site investigations also indicate that groundwater found in the Ss1 unit is found under mounded

conditions as a consequence of an east-west trending structural trough located near the central portion of the site (Figure 3).

Quarterly groundwater monitoring results indicate that groundwater contained in monitoring well E-7, which monitors groundwater in the Ss2 sandstone unit, is approximately 66 feet lower in elevation as compared to nearby well B-204B, which monitors groundwater in the Ss1 sandstone unit. The above findings indicate that the sandstone units are isolated from each other by the intervening aquitards (SECOR, 2006).

#### 5.2.2.1 Water Bearing Zones

The description of the above sandstone units underlying the WMA are described below in order of oldest to youngest, as is the generally accepted geologic practice (EMCON, 1996a):

- **Ss4** - This sandstone unit ranges from 35 to 50 feet in thickness and is composed of fine-grained sand with portions containing up to 40 percent clay and silt and occasional gravel layers. Some core samples from this unit were found to contain burrows and other evidence of bioturbation, suggesting a marine origin. In general, it is friable or has low hardness, however, some cemented zones were encountered during drilling. Although this unit is poorly exposed in the extreme western portion of the site, it was not directly exposed to waste disposal activities at the site.
- **Ss3** - This sandstone unit is about 8 to 14 feet thick, and is composed of fine- to medium-grained sand with up to 20 percent silt and clay. Typically, it is friable or has low hardness and contains some gravel lenses as well as siltstone and claystone partings. This unit does not appear to have been directly exposed to waste disposal practices as no WMU appears to have been excavated into it.
- **Ss2** - This sandstone unit is approximately 20 to 30 feet thick and is composed of fine-grained sand with up to 35 percent silt and clay. The silt and clay occur within the matrix as discontinuous partings and lenses. Cemented beds along with gravel beds were reportedly encountered during drilling and also were observed in a bulldozer scrape in the southwest portion of the site. The Ss2 sandstone unit is friable or has low hardness except where cemented with calcium carbonate. Some core samples collected during previous site investigations were found to contain burrows and other signs of bioturbation, suggesting the unit was deposited in a marine environment. Analysis of core samples during the EMCON 1985-1986 investigation indicated the core samples were saturated with naturally occurring oil. The Ss2 sandstone unit appears to have been directly exposed to buried waste at the site. Portions of both the First and Second Main Trenches were excavated into this unit. In addition, part of the Dust and Powder Area overlies this unit.
- **Ss1** - This sandstone unit is the thickest (approximately 80 feet thick) of the sandstone units, which underlie the WMA and consists of fine- to medium-grained sand with portions containing up to 35 percent silt and clay. Thin silt and clay partings and lenses are common. The unit contains some friable zones, but typically it is characterized by low to moderate hardness. Cemented beds and

lenses were encountered at the base of the unit while drilling during the 1985-1986 investigation. Previous site investigations indicate that this unit has 32 to 34 percent porosity with 11 to 16 percent of the pore volume saturated with oil. Pelecypods have been found in core samples and in cuttings from the basal cemented zone, suggesting the base may be near the transition from non-marine sediments above and dominantly marine sediments below. The Third Main Trench is underlain by this sandstone unit and most of the Second Main Trench was excavated into this sandstone or the underlying siltstone.

#### **5.2.2.2 Groundwater Monitoring Network**

The groundwater monitoring network of the site consists of wells B-204A, B-204B, B-204C, B-207, E-1A, E-1B, E-1C, E-1D, E-2, E-3, E-4, E-5, E-6, E-7, E-9, and E-10. These wells were constructed to assess for the presence of groundwater in the individual sandstone units mentioned above (Table 2). Groundwater samples, however, are not collected from some of these wells because they are dry (wells B-204C, E-1D, E-4, and E-5) or just contain a small amount of groundwater in the blank-casing tail piece located below the screened interval (wells E-1B and E-1C). In addition, no groundwater samples are collected from monitoring well B-204A because it has a pump lodged in its casing or from well E-1A because it contains naturally occurring crude oil that has a viscosity similar to tar. Consequently, the only wells from which groundwater samples are collected are monitoring wells B-204B, B-207, E-2, E-3, E-6, E-7, E-9, and E-10 (Figure 2).

The only monitoring wells completed in the Ss2 sandstone unit, which consistently contains groundwater, are monitoring wells E-7 and E-10. Monitoring well E-1B, also completed in the Ss2 sandstone unit is dry. Monitoring well E-1C, used to monitor the Ss3 sandstone, and wells E-1D, E-4, and E-5, used to monitor the Ss4 sandstone unit, have only occasionally contained measurable groundwater.

As part of the comprehensive groundwater monitoring program considered in this SAP, destruction of the ineffective wells noted above (wells E-4, E-5, E-1A, E-1B, E-1C, and E-1D) will be proposed under separate cover. It will also be proposed that since well B-204B is a viable well nested in a single steel conductor casing with ineffective wells B-204A and B-204C that wells B-204A and B-204C be grouted-in-place and well B-204B be retained in the monitoring well network. Should the decommissioning of wells B-204A and B-204C jeopardize the ability to sample well B-204B, then these two wells will not be decommissioned, unless their remaining in-place would cause non-representative groundwater samples to be collected from B-204B. To date the viable wells (wells B-204B, B-207, E-2, E-3, E-6, E-7, E-9, and E-10) being monitored at the Blue Hills Disposal facility appear to be adequate to characterize site conditions. Decisions regarding reinstallation of wells, or installation of new wells, will be assessed in the context of the overall changes to the hydrogeology and future monitoring requirements for the site.

#### **5.2.2.3 Groundwater Occurrence**

Groundwater is generally found only in monitoring wells B-204B, B-207, E-1A, E-2, E-3, E-6, and E-9 (used for monitoring the Ss1 sandstone unit) and in monitoring wells E-7 and E-10 (used for monitoring the Ss2 sandstone unit). Groundwater is not found in monitoring wells



completed in the Ss3 or Ss4 sandstone units. The depth to groundwater in the Ss1 unit ranges from approximately 65 feet below the top of casing (BTOC) at monitoring well B-207 to 182 feet BTOC in monitoring well E-6. In the Ss2 sandstone unit groundwater is found at approximately 151 feet BTOC in monitoring well E-7 and 175 feet BTOC in monitoring well E-10 (Table 3).

During quarterly groundwater monitoring events the water-bearing zones of the Ss1 and Ss2 sandstone units have been demonstrated to be low-permeability formations. Using purge rates of 0.23 liters per minute (L/min) to 0.57 L/min during the sampling events, 6 of the 8 monitoring wells routinely sampled are dewatered during purging before the calculated purge volume is obtained. Recovery time for the water level to return to 80% to 90% of the static water level generally ranges from 30 minutes (well B-204 B and well E-6) to over 24 hours (well E-10) (SECOR, 2006).

A groundwater contour map for the first quarter 2007 is included as Figure 3. A composite hydrograph, prepared using groundwater elevation data from 1983 to February, 2007, indicates that groundwater levels in the Ss1 sandstone unit declined slightly from 1983 to mid-1992 when water levels began to increase (Figure 4). Since mid-1994 water levels have declined slightly in the Ss1 unit. The hydrograph also indicates that groundwater levels in the Ss2 sandstone unit have remained relatively constant since 1987 with the exception of two small, short-lived increases measured during the first quarter 1994 and first quarter 1995. These short-lived increases may have been spurious measurements as a consequence of highly mineralized water condensing along the inside of the well casings or as the result of fluctuations during the wet seasons.

#### 5.2.2.4 Groundwater Flow

Groundwater elevation data obtained to date from the Ss1 sandstone indicates the site groundwater flow direction in the Ss1 sandstone unit is toward the northeast. The horizontal groundwater seepage velocity in the Ss1 sandstone unit has been calculated to be approximately  $4.5 \times 10^{-5}$  to  $2.8 \times 10^{-4}$  centimeters per second (cm/sec) or  $1.3 \times 10^{-1}$  to  $8.0 \times 10^{-1}$  feet per day (ft/day) based on the following equation:

$$v = Ki/n_e$$

Where:

$v$  = linear average groundwater flow velocity (cm/sec or ft/day)

$K$  = hydraulic conductivity ( $2.9 \times 10^{-5}$  to  $1.5 \times 10^{-4}$  cm/sec or 0.08 to 0.43 ft/day)

$i$  = hydraulic gradient (0.25 to 0.30)

$n_e$  = estimated effective porosity (0.16)

The values shown above for hydraulic conductivity and effective porosity were based on findings from the *Hydrogeologic Investigation Blue Hills Landfill Disposal Site* (EMCON, 1986a). The hydraulic gradient range of 0.25 to 0.30 foot per foot is based on quarterly groundwater monitoring reports for the site.

## 6.0 GROUNDWATER QUALITY MONITORING PARAMETERS AND SAMPLING FREQUENCY

As part of the Blue Hills Disposal Facility post-closure permitting process for the site, the County of Fresno is required to establish and implement a groundwater SAP to demonstrate the effectiveness of the corrective action monitoring program (CAMP) and that meets guidelines contained in: 1) 22 CCR 66264.97 and 22 CCR 66264.100; 2) Title 40, Code of Federal Regulations Part 258 Subpart E; and 3) WDR Order No. 99-087.

As defined in 22 CCR 66264.95(a), the point of compliance is a vertical surface, located at the hydraulically downgradient limit of the waste management area that extends through the uppermost aquifer underlying the regulated unit. For the Blue Hills Disposal Facility, the point of compliance is downgradient and downslope of MWU 3, as shown in Figure 2.

Monitoring wells included in the CAMP are wells B-204B, B-207, E-2, E-3, E-6, E-7, E-9, and E-10 as shown in Figure 2. Other wells at the facility (B-204A, B-204C, E-4, E-5, E-1A, E-1B, E-1C, and E-1D) are not included in the CAMP.

Pursuant to 22 CCR 66264.100, reports addressing the effectiveness of the CAMP will be submitted at least semiannually. Therefore, quarterly groundwater sampling will be replaced by semi-annual groundwater sampling. Measuring of the groundwater elevation will continue on a quarterly basis as required by Title 22, CCR, Section 66264.97(e)(15) and Title 23, CCR, Section 2550.7(e)(15). However, if Title 22 regulations change that allow less frequent groundwater elevation measurements, the County can request a modification to the DTSC permit and RWQCB WDR to switch to semiannual groundwater elevation measurements. Based on results of the detection monitoring program (DMP) and evaluation monitoring program (EMP) sampling to date, the semiannual, annual, and 5-year CAP general chemistry parameters, monitoring parameters and constituents of concern (COCs) discussed in this SAP are detailed in Table 4 and are summarized here.

COCs are the list of compounds that are related to site wastes and potential geochemical reactions with the environment, and will be analyzed annually or every five years. Monitoring parameters are a subset of COCs that are a clear indicator of a release from the facility. Because the Blue Hills Disposal Facility has had a release to the environment, the monitoring parameters will be used to evaluate trends in the released constituents, a subset of monitoring parameters will be analyzed semi-annually and another subset will be analyzed annually. General chemistry parameters are field parameters that provide supplemental information regarding changes in groundwater geochemistry, and will be analyzed semi-annually.

### Quarterly Groundwater Elevation Measurements

- Groundwater Elevation (field measurement) (quarterly until regulations are revised and DTSC and RWQCB approval is obtained to measure semi-annually).

**Semi-Annual General Chemistry Parameters (All Monitoring Wells)**

- Temperature (field measurement)
- Electrical Conductivity (field measurement)
- pH (field measurement)
- Turbidity (field measurement)
- Oxidation reduction potential (field measurement)
- Dissolved oxygen (field measurement)

**Semi-Annual Monitoring Parameters (All Monitoring Wells)**

- Total Organic Carbon
- Total Dissolved Solids (TDS)
- Chlorophenoxy Herbicides (Dalapon, Dicamba, Dichloroprop, 2-4-D, 2,4-DB, Dinoseb, Silvex, 2,4,5T, MCPA, MCPP)
- Volatile Organic Compounds (extended list)

**Annual Monitoring Parameters (All Monitoring Wells)**

In addition to the semiannual monitoring parameters and general chemistry parameters listed above, the following monitoring parameters will be monitored annually:

- |             |             |                       |
|-------------|-------------|-----------------------|
| • Calcium   | • Potassium | • Nitrate as Nitrogen |
| • Magnesium | • Sulfate   | • Chloride            |
| • Sodium    |             |                       |

**Constituents of Concern and Appendix IX Constituents Monitored Every 5 Years (All Monitoring Wells)**

In addition to the general chemistry parameters and monitoring parameters listed above, the following constituents of concern and Appendix IX parameters will be monitored every 5 years:

- Metals (Constituents of Concern) - Arsenic, Copper, Lead, Mercury, Zinc (total)
- Metals and Minerals (Appendix IX) - Antimony, Barium, Beryllium, Cadmium, Chromium, Cobalt, Nickel, Selenium, Silver, Sulfide, Thallium, Tin, Vanadium
- Organo-Phosphorous Compounds (Constituents of Concern)
- Polychlorinated biphenyls (PCBs) (Constituents of Concern)
- Organo-chlorine pesticides (Constituents of Concern)
- Cyanide (Constituent of Concern)
- Dioxins and Furans (Appendix IX)
- Phenols (Appendix IX)

- Base Neutral and Acid Extractables (Appendix IX)
- 1,4-dioxane

The historical analytical results of site DMP and EMP activities for the above monitoring parameters and constituents of concern including additional Appendix IX analytes requested by the RWQCB through the first quarter 2007 have been tabulated and are presented on the following tables.

- Table 5 General Minerals Analytical Results
- Table 6 Chlorophenoxy Herbicides Analytical Results
- Table 7 Organo-Chlorine Pesticides Analytical Results
- Table 8 Polychlorinated Biphenyls, Dioxins, and Furans Analytical Results
- Table 9 Volatile Organic Compounds Analytical Results
- Table 10 Metals Analytical Results
- Table 11 Organo-Phosphorus Pesticides Analytical Results
- Table 12 Base Neutral and Acid Extractable Compounds Analytical Results

## **7.0 FIELD SAMPLING PLAN**

The Field Sampling Plan (FSP) of the SAP is discussed in the following section. The groundwater sampling and analysis procedures presented below are designed to ensure that consistent and reproducible sampling data are obtained from the site. USEPA guidelines for groundwater sampling (Yeskis, 2002) and DTSC guidance documents of monitoring requirements for permitted hazardous waste facilities (DTSC, 2001) have been incorporated into the FSP and referenced in the appropriate sections.

### **7.1 Project Manager**

The Project Manager is responsible for establishing, and compliance with, project schedules and budgets, resource management, and issuance of reports on time. The Project Manager will assure that the necessary resources are available for completion of the project, and will approve the selection of project teams. The Project Manager will be a California-professional geologist or –professional engineer.

### **7.2 Peer (QA/QC) Reviewer**

The Peer Reviewer is the technical reviewer for the project and is organizationally independent of the project management. The Peer Reviewer is responsible for providing a quality assurance/quality control (QA/QC) and technical review of the documents (e.g. quarterly groundwater monitoring reports) from the project.

### **7.3 Technical Manager**

The Technical Manager is responsible for the oversight and execution of activities. The Technical Manager is responsible for scheduling and overseeing the work of field personnel and subcontractors. He will also assist the Project Manager in selecting teams and subcontractors. The Technical Manager has the authority for QC related issues.

The Technical Manager will be responsible for the technical oversight of the field activities and all subcontractors including the inventory and quality control of equipment and materials. He will ensure that each subcontractor performs effective inventory and control for its quality affecting equipment and materials. Control of field measurements and test equipment will include preventive maintenance and calibration. The Technical Manager is also responsible for: 1) sample shipment to laboratories; 2) inspection of sample containers prior to use; 3) supervision of sample collection activities; 4) preparation of chain-of-custody documentation; 5) verification of sample preservation; and 6) proper tracking of sample coolers by shipping agent.

### **7.4 Engineer**

The Engineer reports to the Project Manager. The Engineer is responsible as the point-of-contact to the client on environmental chemistry issues and has authority for QC related issues. The Engineer will be responsible for ensuring that the sample collection is in accordance with this SAP.

**7.5 Health and Safety Officer**

The Health and Safety Officer for the project will report to the Project Manager. The Health and Safety Officer is responsible for ensuring that all health and safety requirements are met at the site, and that work is conducted in a safe manner.

**7.6 Database Manager**

The Database Manager reports to the Technical Manager and is responsible for database management for project related environmental data. The Database Manager is responsible for: 1) supervising the transmission of hard copy and electronic data from the field and laboratory; 2) verifying that the information is complete and consistent with the hard copy; 3) receiving and logging analytical data packages from the laboratory; and 4) maintaining the electronic database for the project.

**7.7 Field Sampler**

The Field Sampler reports directly to the Technical and Project managers and is responsible for correctly performing all field activities. Field activities include equipment decontamination and calibration, groundwater measurements, well purging, field measurements, and groundwater sampling.

**7.8 Sampling Schedule**

A tentative yearly sampling schedule will be prepared and submitted to DTSC and the RWQCB for the semiannual and annual sampling events. To confirm the tentatively scheduled sampling dates, the DTSC must be notified at least 2 weeks in advance that such sampling will take place as originally planned. It is understood, however, that in the event of unusual circumstances, such as rainfall events, re-scheduling of the planned sampling event may be required. In this instance, the DTSC should be notified promptly of the revised sampling schedule.

**7.9 Enforcement and Inspections**

The DTSC may, at its discretion, conduct an unannounced inspection of groundwater sampling activities to insure that groundwater data for the site is being collected in accordance with this SAP. Sampling activities, which are not conducted according to this plan may be subject to fines by the DTSC. Authority for such inspections is presented in Title 22, Chapter 22, Section 66272.1. Authority for fines that may be imposed, depending on the nature of the violation, is presented in Title 22, Article 3, Section 66272.60 through Section 66272.68.

To avoid potential groundwater sampling violations and fines, the field personnel involved in groundwater sampling activities at the site are thoroughly familiar with the sampling procedures outlined in the SAP. The sampler is required to maintain, and to have a copy of, this SAP during sampling activities conducted at the site.

It is possible that existing site conditions may change in the future. Consequently, if procedure(s) stated below are no longer applicable, the consultant involved in the groundwater sampling activities should arrange for an amendment to this SAP before proceeding with a

modification to the groundwater sampling activities. The reason for this is that compliance or non-compliance in site groundwater sampling activities is based on the SAP.

### **7.10 Pre-Field Activities**

In the weeks before water quality samples are collected for analyses according to this SAP, prefield activities will be conducted to assure that the data quality objectives of the SAP are achieved. The steps presented below describe the prefield and field activities and the laboratory QA/QC procedures planned to achieve these goals.

#### **7.10.1 Site-Specific Health and Safety Plan**

Since HAZWOPER standards apply, as required under Occupational Safety and Health Administration's (OSHA) regulations, the contractor must develop and implement a written site-specific health and safety plan (HASP) that addresses the safety and health hazards of each phase of Site operation and includes the requirements and procedures for employee protection. The minimum elements for this plan are contained in 29 CFR 1910.120(b)(4)(ii).

To continually assess potential hazards at the Blue Hills Disposal Facility and to protect field personnel during completion of field activities, a HASP will be developed prior to entering the field to conduct monitoring activities. A "tailgate" safety meeting will be conducted on a daily basis during field activities to discuss elements of the HASP and assess any changing circumstances that may potentially affect the field personnel. The HASP will be available onsite in a conspicuous location during all field activities. The HASP will be evaluated and updated at least every 6 months or as changing circumstances may dictate. The HASP at a minimum will contain the following elements:

- Local emergency contact names, phone numbers, and directions to the hospital.
- Objectives and goals of the HASP.
- Scope of work.
- Emergency response.
- Contractor emergency action plan.
- Background information on the project site.
- Client safety procedures.
- Site plan.
- Government and line locator contact names and phone numbers.
- Project personnel and relevant information.
- Maximum concentrations of contaminants identified onsite.
- Potential airborne concerns.
- Detailed project steps with hazard assessments and precautions.
- Waste characteristics.

#### **7.10.2 Sample Collection Preparation**

Prior to entering the field for the purpose of collecting groundwater samples, clean sample containers, travel blanks, and coolers should be obtained from the contracted analytical laboratory. A summary of sample container requirements is included as Table 13. When

making arrangements with the laboratory, enough sampling containers should be ordered to account for travel blanks and duplicate samples. Consideration should be given to ordering extra sample bottles to allow for breakage or contamination in the field. Coolers used for sample storage and shipment should be large enough to store containers, packing materials and ice. The site weather conditions in the summer months are hot and consequently extra coolers and ice may be necessary.

The sampler is encouraged to make sure he/she is prepared since the site is somewhat remote, which makes it difficult to replenish supplies or pick up forgotten items. Assemble and check field equipment prior leaving for the site to ensure that field instruments are working properly. If there are any doubts about the condition of a piece of equipment, bring along a replacement. This will save a long trip back to the office or the possibility of violating QA/QC guidelines. As a guide, a checklist of supplies that may be needed at the site will be prepared by the consultant.

### **7.10.3 Field Sampling Forms and Writing Instruments**

The field sampling forms to be used at the site will be designed to write in wet environments such as "Write-In-The-Rain" paper products. New field sampling forms will be produced for each sampling event. The field pen to be used at the site should also be capable of writing in a wet environment. DTSC has agreed with this approach as long as adequate contingency provisions are made in the event that rain interferes with completing the field data logs.

Sharpie permanent markers may be used for labeling sampling bottles that are not wet. These markers, however, are not able to write on wet paper materials. Consequently, during sampling activities it will be necessary to possess a pen capable of writing in a wet environment.

An example Water Sample Field Data Sheet is provided in Appendix A. At a minimum, the following information will be recorded on Waste Sample Field Data sheets during purging and collection of groundwater samples.

- |  |   |
|--|---|
| • Client name  | • Sampling equipment used   |
| • Project location   | • Appearance of each sample (e.g. color)  |
| • Name of sampler  | • Results of field analyses (temperature, pH, specific conductance and turbidity) |
| • Date and Time  | • Number and type of bottles used noting any preservatives used                   |
| • Pertinent well data (e.g. casing diameter, depth to water, well depth) | • General comments  |
| • Calculated and actual purge volumes                                    |   |
| • Purging equipment used   |   |

The Water Sample Field Data Sheet is to be signed by the sampler.

### **7.11 Equipment Calibration**

Field equipment used to monitor physical parameters must be calibrated at the site before use. To insure accuracy, the field equipment is to be recalibrated approximately midway during that day's sampling event. The sampler is to ensure that the shelf-life of the calibration fluids used in the equipment calibration procedures has not expired before equipment calibration is conducted. The date and time of the equipment initial calibration and re-calibration, during each



day's sampling, is to be written down in appropriate field forms. As long as "water-proof" paper and appropriate writing pen is being used, as required under this plan, it will not be necessary to maintain separate calibration log-books for each piece of field sampling equipment. This will minimize the amount of materials and paperwork that are required at the site. Equipment calibration information is to be recorded on the Equipment Calibration Log and Water Level Readings form in Appendix A.

Because of the potential for stretch, the water level sounding line should be checked for accuracy prior to obtaining water level readings. A suggested calibration method is to turn-off the sounder and lower it into a monitoring well, near to first-encountered groundwater. With an engineering steel tape, marked in 0.01 foot increments, check the water level sounding line against the engineering steel tape at the top of the well. Any stretch in the sounding line should be noted in the calibration notes so that appropriate adjustments can be made to the water level reading obtained during a particular sampling event.

While it is recognized that many times water level sounding lines have deductions for losses in the line, caused by entanglements during previous sampling events, usage of such sounding lines should be avoided, if possible. In addition, sounding lines that have worn numbers that make it difficult to read should also be avoided.

#### **7.12 Latex Sampling Gloves**

Clean protective latex gloves, or the equivalent, will be used for each phase of sampling and at each individual sampling point commencing with the groundwater level elevation survey discussed below. Consequently, an ample supply of protective gloves should be brought to the site.

#### **7.13 Equipment Decontamination**

Since the site contains dedicated bladder pumps, decontamination of field equipment is limited to the water level sounder, electronic field instruments, temporary purge water containers, sampling purging containers, sampling volumetric flasks, and ancillary sampling equipment. It is understood that because of the delicate nature of electronic field instruments, it may not be appropriate to apply cleaning solutions or rinsate fluids to particular field instruments. Where appropriate, however, the cleaning solution to be used is a laboratory grade and phosphate-free cleaning material such as liquid Liquinox®. Following cleaning of the sampling equipment with a Liquinox® solution, the equipment is to be rinsed with deionized water, such as distilled water. Cleaning and rinsate solutions generated from a particular monitoring point are to be contained and placed in the purge drum located adjacent to each monitoring well.

In the case of the water level sounder, it will not be necessary to contain the decontamination solutions because the amount of cleaning and rinsing solutions to be used is considered minimal. Only the probe of the water level sounder, which comes into contact with groundwater and approximately one to two-feet of sounding line requires decontamination after use at each monitoring point. To avoid contaminating the probe after cleaning it, the water level sounder should be equipped with a probe-holding attachment.

#### **7.14 Groundwater Elevation Survey**

Before purging of any site monitoring wells, all monitoring wells at the site will be measured for static water level during a single water level survey. The data obtained is to be logged into a separate field form designated as water level data, or similar. The depth to water will be recorded to the nearest 0.01 foot from the top of the PVC casing cap. The water level data obtained during this event will subsequently be converted to elevations above MSL for use in preparing a groundwater elevation contour map.

Groundwater conditions at the site are such that the sensitivity of the water level sounder may require adjustment for the high electrical conductivity of the site groundwater. Otherwise, condensation of this high conductivity water along the inside of the well casing may lead to false readings. The electronic water level sounder to be used should be clearly marked at 1 foot intervals with 0.01 foot marking between each 1 foot interval. When using an electronic sounder, the probe will be lowered down the casing to the top of the water column, and the graduated markings on the probe tape will be used to measure the depth to water from the surveyed point on the rim of the top of the casing to the nearest 0.01 feet. The electronic water level sounder will be decontaminated after each use using the procedures indicated above.

Monitoring wells that are sampled on the same day as the groundwater elevation survey are not required to be sounded for depth to groundwater. Monitoring wells to be sampled on days following the groundwater level survey, however, are required to be sounded for depth to groundwater prior to purging of these wells. The depth to groundwater obtained at that time is to be logged on the field sampling form for that particular well.

#### **7.15 Well Depths**

Site monitoring wells with existing dedicated bladder pumps are not required to be sounded for total well depth as such would involve the removal of the existing bladder pumps, which were installed on May 2, 2002. Because of the low groundwater yielding nature of the formations penetrated by the site monitoring wells the intake of the dedicated bladder pumps is located 1 foot from the bottom of the wells. Casing volumes for the monitoring wells are to be calculated based groundwater level measurements obtained immediately prior to sampling and on well depths indicated in Table 2.

Removal of dedicated bladder pumps for the sole purpose of sounding the bottom of monitoring wells is not to be conducted at the site. Removal of dedicated bladder pumps is only to be conducted when maintenance is required in the pumps or wells. Past practices of removing bladder pumps for sounding the bottom of monitoring wells has resulted in stuck bladder pumps and the loss of monitoring wells. Since it is known that the pump intake is set at 1 foot from the bottom of the wells, the maximum amount of silt deposition that could occur in a well before blockage of the pump is 1 foot. In the absence of such blockage, pump removal is unnecessary unless the pump is inoperative due to other circumstances such as stuck check valves on the top or bottom of the bladder pump or separation of the air or discharge line from the pump. If maintenance to the bladder pump is required, and it becomes necessary to remove the pump, then at that time the well depth will be sounded and recorded. Some deep wells have a long delay before water is observed flowing at the surface. Consequently do not assume that something is wrong with the bladder pump if such a delay is observed.

## 7.16 Well Purging

During previous quarterly groundwater monitoring events the water-bearing zones of the Ss1 and Ss2 sandstone units have been demonstrated to be low-permeability formations as discussed in Section 5.2.2.3 of this SAP. Based on USEPA guidelines for sampling low-permeability formations, different procedures must be followed in the case of slow-recovery wells installed in low hydraulic conductivity aquifers. A well that can sustain a 0.2 L/min to 0.4 L/min purge rate, but has more than a 0.5 foot of drawdown can be considered to have low hydraulic conductivity (Yeskis, 2002). During past sampling events, most wells at the Blue Hills Disposal Facility, especially well E-10, have been dewatered during purging and have yielded very slow recovery rates indicating low hydraulic conductivity values significantly below those used as criteria for establishing low hydraulic conductivity formations by Yeskis (2002). Well E-10 has historically not recovered to near SWL even after 24 hours (SECOR, 2006).

The proper collection of a sample for dissolved volatile organics requires minimal disturbance of the sample to limit volatilization and therefore a loss of volatiles from the samples. The principal objective is to provide a valid sample for analysis, one that has been subjected to the least amount of turbulence as possible (Yeskis, 2002). Additionally many of the facility wells have an exposed screen interval above the static water level (i.e. wells B-207, E-2, E-3, E-6, E-7, and E-10) (SECOR, 2006). If the well has an open interval across the water table in a low permeability zone, there may be no way to avoid pumping the well dry using conventional purging and sampling techniques. Based on these considerations and given the low yield and slow recovery time of the majority of the site monitoring wells MicroPurge® low-flow sampling techniques will be used for the CAP monitoring program.

### 7.16.1 Low-Flow Standard Operating Procedure

This procedure is designed to assist the user in collecting representative groundwater samples using low-flow (minimal drawdown) purging and sampling methods as discussed in USEPA Publication Number EPA/540/S-95/504 (USEPA, 1996). Other publications consulted for the development of low-flow procedures used in this SAP are summarized in the Reference section below (Barcelona et al, 2005; Puls et al, 1995; QED Systems, 1999; and Varljen et al, 2006). The field sampler's objective is to purge and sample the well so that the water that is discharged from the pump, and subsequently collected, is representative of the formation water from the aquifer's identified zone of interest.

Each dedicated bladder pump is positioned with its inlet located within the screened interval of the well. Each well's pump will be flow tested to determine, and document, the specific well's optimum flow rate that will result in achieving a minimal drawdown of the initial Static Water Level (SWL) within the drawdown parameters detailed below. Once established, this rate will be reproduced for each subsequent sampling event. If a significant change in initial SWL occurs between events, it may be necessary to reestablish the optimum flow rate at each sampling event. The water level in the well casing must be monitored continuously for any change from the original measurement. If significant drawdown is observed, the pump's flow rate should be incrementally reduced until the SWL drawdown ceases and stabilizes. Total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen (for example, if a well has a 10-foot screen zone and the pump inlet is located

mid-screen; the maximum drawdown should be 1.25 feet) (Puls, 1995/USEPA, 1996/QED, 1999).

Once the specific well's optimum flow rate has been determined and documented, an in-line flow cell system will be used to collect field measurements of temperature, pH, conductivity (EC), oxygen reduction potential (ORP), dissolved oxygen (DO) and turbidity (TU). Due to the system's back-pressure, the flow rate will be decreased by 10-20% with the flow cell in place and should be compensated for and documented. All control settings are to be documented on the gauging and sampling sheet as specific to that particular well's ID and will be used for its subsequent purging and sampling events) (Puls, 1995/USEPA, 1996/QED, 1999).

### Purge and Sampling Events

Prior to purging a well, the static water level will be measured and documented. The well's dedicated pump will be started using its documented control settings. Its flow rate will be confirmed by volumetric discharge measurement with the in-line flow cell. If necessary, any minor modifications to the control settings to achieve the well's optimum flow rate will be documented on the gauging sheet. When the optimum pump flow rate has been established, the SWL drawdown has stabilized within the required range and at least one pump system volume (bladder volume + discharge tubing volume) has been purged, field measurements for pH, temperature, EC, ORP, DO, and turbidity will be taken. All water chemistry field measurements will be documented on the gauging sheet. The pH and EC measurements will be used quantitatively to determine stability of the groundwater. DO, ORP, temperature, and turbidity will be recorded, but they will not be used to evaluate stabilization. Measurements should be taken every 3 to 5 minutes until stabilization has been achieved. Stabilization can be considered achieved when three consecutive readings taken at the prescribed intervals show a pH range of  $\pm 0.1$  units and an EC range of  $\pm 3\%$ . Quantitative stability for consecutive EC measurements can be determined by the following equation: Relative Percent Difference (RPD) =  $[(Xa - Xb) \div ((Xa + Xb) \div 2)] \times 100$ . Water quality parameters should be within:

#### Quantitative Measurements:

- pH  $\pm 0.1$  units, minimum
- EC  $\pm 03\%$  of reading

#### Qualitative Measurements

- Temperature  $\pm 3\%$  of reading (minimum of  $\pm 0.2$  C)
- DO  $\pm 0.2$  mg/L
- ORP  $\pm 20$  mv
- Turbidity  $\pm 10\%$  NTU (Turbidity is not a water chemistry indicator parameter but is useful as an indicator of pumping stress on the formation)

When water quality parameters have stabilized, and there has been no change in the stabilized SWL (i.e. no continuous drawdown), sampling collection may begin) (Puls, 1995/USEPA, 1996/QED, 1999).

Field data sheets are to be reviewed by the sampling coordinator after the sampling event is completed to ensure thoroughness and accuracy.

## **7.17 Purge Water Disposal**

Purge water and equipment decontamination water generated during sampling activities, and which is stored in on-site storage drums located adjacent to each monitoring well, is to be disposed via natural evaporation. Since low-flow purging techniques are being used, minimal purge water will be generated. The concentration of volatile organic compounds (VOCs) found in site monitoring wells, if any, is generally at trace concentrations. Since most site monitoring wells will generate at most a few gallons of purge water per sampling event this volume of water is easily evaporated between sampling events.

## **7.18 Well Sampling**

### **7.18.1 Flow Rates**

Groundwater samples are to be collected with the use of the dedicated bladder pumps that are installed in all monitoring wells. When collecting samples for VOC analysis, the bladder pump flow rate is to be regulated to approximately 100 milliliters per minute or less to minimize pump effluent turbulence and aeration. This flow rate may be confirmed with the use of a graduated cylinder, or similar device, before collection of the VOC samples.

### **7.18.2 Spillage**

During sampling the bottles being filled should be placed over a containment canister to capture any spillage during the sampling process. When sampling is completed, such spillage water is to be placed in the on-site purge water drum.

### **7.18.3 Sample Container Filling**

Glass bottles of at least 40 milliliters volume and fitted with Teflon®-lined septa will be used in sampling for volatile organic compounds. These bottles will be filled completely to reduce or prevent air from remaining in the bottle (head space). A positive meniscus forms when the bottle is full. After capping, the bottle is inverted and tapped to verify that air bubbles have been minimized or reduced altogether. It is understood that small bubbles due to natural off-gassing of inorganic chemical compounds reacting with the preservative may occur, however, care must be exercised to minimize or eliminate such bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. This same procedure is to be used for the collection of duplicate samples. Care will be taken to ensure that the sample bottle with preservative will not be overfilled.

## **7.19 Sample Containers and Preservation**

Sample containers vary with each type of analytical parameter. Container types and materials will be selected to be non-reactive with the particular analytical parameter tested. All sample containers are to be obtained from the analytical laboratory that will perform the analysis. The containers are to be clean, unused, and appropriate for the prescribed analytical method including the appropriate preservative (i.e. hydrochloric acid, nitric acid, etc.). A summary of sample container requirements is included as Table 13. Once the sample containers are filled, the samples will be packed in coolers with ice for shipment as discussed in Section 7.20 below.

### 7.19.1 VOCs

The proper collection of a sample for dissolved volatile organics requires minimal disturbance of the sample to limit volatilization. The principal objective is to provide a valid sample for analysis, one that has been subjected to the least amount of turbulence as possible. Based on these considerations and given the low yield and slow recovery time of the majority of the site monitoring wells, standard MicroPurge® and low-flow sampling protocol will be used in the CAP monitoring plan to reduce volatilization and turbidity.

Groundwater produced from the Blue Hills Disposal Facility is not treated with chlorine. Consequently, dechlorination of groundwater is not required prior to placing the sampled groundwater in 40-milliliters glass volatile organic analysis (VOA) sampling bottles that are treated with hydrochloric acid (HCl) as a preservative. The VOA bottles are to be fitted with Teflon®-lined septa. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. After capping, the bottle is inverted and tapped to verify that it contains few to no air bubbles. It is understood that small bubbles due to natural off-gassing of inorganic chemical compounds reacting with the preservative may occur, however, care must be exercised to minimize or eliminate such bubbles.

### 7.19.2 Metals

Samples collected for metal analysis are to be filtered in the field with the use of 0.45-micron filters to reduce the amount of solids that could be entrained in the sampled groundwater and which could interfere with the laboratory analysis. A clean, unused filter will be used for each filtered sample collected. The water will then be pressurized and forced through the disposable filter into the appropriate sample container. When collecting samples, care will be taken not to touch the filter to the sample container. The sampling containers for most metals require a preservative. This preservative will be inside the containers provided by the analytical laboratory for specific metal analytes. Manufacturer's instructions for the filters will be available on site and will be followed accordingly. In accordance with the manufacturer's instructions, the minimum volume of water will be allowed to run through the filter before samples are collected, which is generally 0.5 liters.

## 7.20 Sample Handling

Sample containers will be labeled immediately following sample collection. At a minimum, sample labels will contain the following information:

- Monitoring Well
- Sampler's initials
- Date and time of collection
- Type of preservative used (if any)
- Requisite analysis

Samples will be kept cool with ice until the samples are received by the analytical laboratory. Sufficient wet ice or blue-ice-packs should be used as to keep the samples at a temperature of

approximately 4° Celsius (39.2°Fahrenheit). It is understood that because most groundwater samples will have a temperature of approximately 65 to 72 degrees Fahrenheit when collected, it will take time for these samples to cool down sufficiently to reach the desired temperature. During the summer months, it will be particularly difficult to maintain the collected samples at the desired temperature. Consequently the sampler will ensure that sufficient ice or blue-ice-packs are brought to the site for each day's sampling event. Note that wet ice cubes tend to cool-down the samples at a faster rate as compared to blue-ice-packs.

## **8.0 QUALITY ASSURANCE PROJECT PLAN**

### **8.1 Chain-of-Custody Document**

The chain-of-custody document, initiated at the time of sampling, contains, at a minimum, the well number, sample type, analytical request, date and time of sampling, and the name of the sampler. Because a sample is “physical evidence”, chain-of-custody procedures are used to maintain and document sample possession from the time the sample is collected until it is delivered to the analytical laboratory, which also must document its possession of the samples. If you have physical possession of a sample, have it in view, or have it physically secured to prevent tampering, then it is defined as being in custody.

When the samples transfer possession, both parties involved in the transfer must sign, date and note the time on the chain-of-custody document. Many times transportation companies refuses to sign a chain-of-custody document. In such instances, indicate how the samples were shipped on the chain-of-custody document and place the chain-of-custody document inside the cooler in two water-tight Zip-Lock® bags. If the samples are split and sent to more than one laboratory, prepare a separate chain-of-custody document for each sample. If the samples are delivered to the analytical laboratory's after hours night drop-off box, the custody document should note such a transfer and be locked with the samples inside sealed boxes.

When the analytical laboratory personnel receive the sample, they will assign a unique sample identification number to each sample container. This number will be recorded on the chain-of-custody form and will be used to identify the sample in all subsequent internal chain-of-custody and analytical records. The analytical laboratory manager will ensure that the holding times for requested analyses are not exceeded.

### **8.2 Quality Control**

Quality assurance measures will be taken to confirm the integrity of the field and laboratory data generated during the monitoring program. The procedures used to assess data quality are described in this section. An evaluation of the field and laboratory quality assurance data will be included in the technical reports.

#### **8.2.1 Field Quality Assurance Procedures**

Field quality assurance procedures will be included in each monitoring event and includes the documentation of field instrument calibration and collecting and analyzing trip blanks and duplicate samples.

##### **8.2.1.1 Trip Blanks**

Trip blanks will be prepared by the analytical laboratory that is providing the sampling containers for a particular sampling event. Trip blanks will accompany these containers to and from that event, but at no time will they be opened or exposed to the atmosphere. Trip blanks will be used to assess sample container cleanliness and contamination originating from sample



handling and transportation. Trip blanks will accompany each sample cooler containing VOC and/or semi-VOC samples during each sampling event. The Trip Blanks will be analyzed for volatile organic parameters.

#### 8.2.1.2 Blind Duplicate Samples

A blind duplicate sample will be collected from monitoring well E-3, which has been found to contain dicamba. The duplicate sample, to be labeled E-28, will be submitted for analysis of:

- VOCs (USEPA Method 8260B) (semiannually)
- Chlorophenoxy Herbicides (USEPA Method 8151A) (semiannually)
- TOC (USEPA Method 415.1) (semiannually)
- Organo-Chlorine Pesticides (USEPA Method 8080/8081) (5-years)
- Chloride (USEPA Method 300.0) (annually)
- Nitrate as Nitrogen (USEPA Method 353.2) (annually)
- TDS (USEPA Method 160.1) (semiannually)
- Organo-Phosphorus Compounds (USEPA Method 8141) (5-years)

It is not necessary to submit blind duplicate sample E-28 for other than that indicated above. The procedures for collecting this blind duplicate sample are presented in above Section 7.12. The duplicate sample E-28 will be packed and shipped "blind" to the laboratory for analysis with the samples from that particular event (i.e., these samples will not exhibit any special markings indicating that they are quality control samples).

#### 8.2.2 Laboratory Quality Assurance Procedures

Laboratory quality assurance procedures will include those required under the DTSC Hazardous Waste Testing Program. Laboratory QC reporting format will be specified as Level II. At a minimum Level II QC reports will contain the following elements:

- Precision and Accuracy (MS/MSD, RPDs)
- Laboratory Control Sample
- Method Blank
- Preparation and Analysis
- Calibration Summary (ICV, CCV, CCB)

Specific laboratory quality assurance procedures are included in the laboratory QA manual for surrogate recoveries, matrix spike recoveries, and matrix spike duplicate (or duplicate) results.

Method blanks will be analyzed daily to assess the effect of the laboratory environment on the analytical results. Method blanks will be performed for each parameter analyzed.

Each sample to be analyzed for organic parameters will contain surrogate spike compounds. The surrogate recoveries will be used to determine if the analytical instruments are operating within limits. Surrogate recoveries will be compared to control limits established and updated by the laboratory based on its historical operation.

Matrix spikes/matrix spike duplicates (MS/MSDs) will be analyzed at a frequency of approximately 5 percent. Ideally MS/MSDs would be performed on groundwater samples collected from the Blue Hills Disposal Facility. However, this may not always be possible because MS/MSDs often require two to three times the sample volume, but the low-yielding wells at the Blue Hills Disposal Facility may not yield sufficient volume. Therefore, the County of Fresno will work with the analytical laboratory to ensure performance of MS/MSDs on site samples. MS/MSD results will be evaluated to determine whether the sample matrix is interfering with the laboratory analysis and provide a measure of the accuracy of the analytical data. Matrix spike recoveries will be compared to control limits established and updated by the laboratory based on its historical operation.

Laboratory duplicates will be analyzed at a frequency of approximately 10 percent. Spike duplicate results will be evaluated to determine the reproducibility (precision) of the analytical method. Reproducibility values will be compared to control limits established and updated by the laboratory based on its historical operation.

Laboratory quality control (QC) data will be included with the analytical results. This QC data will include method blanks, surrogate spike recoveries (for organic parameters only), matrix spike recoveries, and matrix spike duplicates

### **8.3 Data Quality Objectives**

This Data Quality Objectives (DQO) section provides internal means for control and review so that environmentally-related measurements and data collected are of known quality.

The objective of the SAP is to monitor the nature and extent of groundwater contamination in the subsurface, to assess the hydrogeologic characteristics of the Site. The DQO process is a series of planning steps based on the scientific method that are designed to ensure that the type, quantity, and quality of environmental data used in decision-making are appropriate for the intended purpose. The USEPA has issued guidelines to help data users develop site-specific DQOs (USEPA 1994c). The DQO process is intended to:

- Clarify the study objective
- Define the most appropriate type of data to collect
- Determine the most appropriate conditions from which to collect the data
- Specify acceptable levels of decision errors that will be used as the basis for establishing the quantity and quality of data needed to support the design

The goal of the DQO process is to “help assure that data of sufficient quality are obtained to support remedial response decisions, reduce overall costs of data sampling and analysis activities, and accelerate project planning and implementation.” The DQO process specifies project decisions, the data quality required to support those decisions, specific data types needed, data collection requirements, and analytical techniques necessary to generate the specified data quality. The process also ensures that the resources required to generate the data are justified. The DQO process consists of seven steps of which the output from each step influences the choices that will be made later in the process. These steps include:

- Step 1: State the problem
- Step 2: Identify the decision
- Step 3: Identify the inputs to the decision
- Step 4: Define the study boundaries
- Step 5: Develop a decision rule
- Step 6: Specify tolerable limits on decision errors
- Step 7: Optimize the design for obtaining data

### 8.3.1 Specify Tolerable Limits on Decision Errors

Decision maker's tolerable limits on decision errors, which are used to establish performance goals for the data collection design, are specified in this step. Decision makers are interested in knowing the true value of the constituent concentrations. Since analytical data can only estimate these values, decisions that are based on measurement data could be in error (decision error). There are two reasons why the decision maker may not know the true value of the constituent concentration, these are:

1. Concentrations may vary over time and space. Limited sampling may miss some features of this natural variation because it is usually impossible or impractical to measure every point of a population. Sampling design error occurs when the sampling design is unable to capture the complete extent of natural variability that exists in the true state of the environment.
2. Analytical methods and instruments are never absolutely perfect; hence a measurement can only estimate the true value of an environmental sample. *Measurement error* refers to a combination of random and systematic errors that inevitably arise during the various steps to the measurement process.

The combination of sampling design and measurement error is the total study error. Since it is impossible to completely eliminate total study error, basing decisions on sample concentrations may lead to a decision error. The probability of decision error is controlled by adopting a scientific approach in which the data are used to select between one condition (the null hypothesis) and another (the alternative hypothesis). The null hypothesis is presumed to be true in the absence of evidence to the contrary. For this project the null hypothesis is that the true values of the constituents are below the action levels. The alternative hypothesis is that the true values of the constituents are above the action levels.

A false positive or "Type I" decision error refers to the type of error made when the null hypothesis is rejected when it is true and a false negative or "Type II" decision error refers to the type of error made when the null hypothesis is accepted when it is false. For this project, a Type I decision error would result in deciding that the site was contaminated above action levels ("dirty") when it is not and a Type II decision error would result in deciding that the site was not contaminated above action levels ("clean") when it is. For example, if the action level for a constituent is 1 microgram per Liter ( $\mu\text{g/L}$ ), the reported concentration is 0.9  $\mu\text{g/L}$ , and the true value is 1.1  $\mu\text{g/L}$ , a Type II error could easily be made by not applying any decision error limits.

For this project, a Type II error is less acceptable (worse case) than a Type I error because a Type II error could result in ecological and/or human harm whereas, a Type I error could result in spending additional funding for further investigating a “clean” site.

The closer the reported concentration is to the action level, the higher the probability that an incorrect decision will be made and, therefore, there is a “gray region” surrounding the action level. For this project, there is no “gray area” and the tolerable decision error is  $\pm 10$  percent.

### 8.3.2 Data Measurement Objectives

Every reasonable attempt will be made to obtain a complete set of usable field measurements and analytical data. If a measurement cannot be obtained or is unusable for any reason, the effect of the missing data will be evaluated by the QA officer. This evaluation will be reported to the County of Fresno and the RWQCB with a proposed corrective action, if necessary.

### 8.3.3 Precision, Accuracy, Representativeness, Completeness, and Comparability Criteria

Precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters are indicators of data quality. PARCC goals are established for the site characterization to aid in assessing data quality. The following paragraphs define these PARCC parameters in conjunction with this project.

**Precision** of a measurement is an expression of mutual agreement among individual measurements of the same property taken under prescribed similar conditions. Precision is quantitative and most often expressed in terms of relative percent difference (RPD). Precision of the laboratory analyses will be assessed by comparing original and duplicate results, where applicable. The RPD will be calculated for each pair of applicable duplicate analyses using the following equation:

$$RPD = (S-D/((S+D)/2)) \times 100$$

Where S = First sample value (original value)

D = Second sample value (duplicate value)

Precision of reported results is a function of inherent field-related variability plus laboratory analytical variability depending on the type of QC sample. Data may be evaluated for precision using the following types of samples (in order of priority): field duplicates, laboratory duplicates, laboratory control sample/laboratory control sample duplicates (LCS/LCSDs), or MS/MSDs, whichever are analyzed. The acceptable RPD limits for duplicate measurements are in accordance with the laboratory-specific limits, methodology, National Functional Guidelines for Inorganic Data Review (USEPA 1994a), or USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA 1994b), whichever are applicable.

**Accuracy** is the degree of agreement of a measurement with an accepted reference or true value and is a measure of the bias in a system. Accuracy is quantitative and usually expressed as the percent recovery (%R) of a sample result. %R is calculated as follows:

$$\%R = \text{SSR} - \text{SR} / \text{SA} \times 100$$

Where SSR = Spiked Sample Result

SR = Sample Result

SA = Spike Added

It is desirable that the reported concentration equals the actual concentration present in the sample. Data may be evaluated for accuracy using (in order of priority) either LCS/LCSDs, MS/MSDs, and/or surrogates. The acceptable %R limits are in accordance with the laboratory-specific limits, methodology, USEPA National Functional Guidelines for Inorganic Data Review (USEPA 1994a), or USEPA National Functional Guidelines for Organic Data Review (USEPA 1994b), whichever are applicable.

**Representativeness** expresses the degree to which sample data accurately and precisely represent:

- the characteristic being measured
- parameter variations at a sampling point, and/or
- an environmental condition

Representativeness is a qualitative and quantitative parameter that is most concerned with the proper sampling design and the absence of cross-contamination of samples. Acceptable representativeness will be achieved through: 1) careful, informed selection of sampling sites; 2) selection of testing parameters and methods that adequately define and characterize the extent of possible contamination and meet the required parameter reporting limits; 3) proper gathering and handling of samples to avoid interferences and prevent contamination and loss; and 4) collection of a sufficient number of samples to allow characterization. The representativeness will be assessed qualitatively by reviewing the sampling and analytical procedures and quantitatively by reviewing the blank samples. If an analyte is detected in a method, preparation, or rinsate blank, any associated positive result less than five times (10 times for common laboratory contaminants) may be considered a false positive. Holding times will also be evaluated to determine if analytical results may be representative of sample concentrations.

**Completeness** is a measure of the amount of usable data obtained from a measurement system compared to the amount that was expected to be obtained under correct normal conditions. Usability will be determined by evaluation of the PARCC parameters excluding completeness. Those data that are validated or evaluated and are not considered estimated or are qualified as estimated or non-detect are considered usable. Rejected data are not considered usable. A completeness goal of 90 percent is projected. Completeness is calculated using the following equation:

$$\text{Percent Complete (\%C)} = (\text{Do/Dp}) \times 100$$

Where Do= Data obtained and useable

Dp= Data Planned

**Comparability** is a qualitative parameter. Consistency in the acquisition, handling, and analysis of samples is necessary for comparing results. Data developed under this investigation will be collected and analyzed using standard USEPA analytical methods and QC to ensure comparability of results with other analyses performed in a similar manner.

#### **8.3.4 Laboratory Reporting Limits**

The practical quantitation limit (PQL) is the minimum level that the laboratory will report analytical results without a qualifier when an analyte is detected. The laboratory can typically detect analytes, but not accurately quantitate, at concentrations lower than the PQL; in this case, when a positive detection is less than the PQL but above the method detection limit (MDL), the value may be reported and qualified as an estimated concentration (J-flagged). The MDL should be the lowest concentration at which the laboratory can regularly differentiate – with 99 percent reliability – between a sample which contains the constituent and a sample which does not, and the PQL should be no higher than quantification limits commonly used by commercial laboratories (typically, not more than 5 to 10 times the MDL). However, to minimize the effects of interferences, the laboratory may modify the extraction and/or analytical methods and/or readjust the instruments. Any modifications will be documented by the laboratory in comments on the certified analytical report.

For each constituent analyzed for each sample, the analytical laboratory will provide the following:

- a. PQL and the MDL for all analyses and all constituents.
- b. Actual numerical value for all results equal to or exceeding the PQL.
- c. Estimated concentrations of all identified constituents less than the PQL but equal to or exceeding the MDL.

#### **8.3.5 Holding Times and Preservatives**

Holding times are storage times allowed between sample collection and sample extraction or analysis (depending on whether the holding time is an extraction or analytical holding time) when the designated preservation and storage techniques are employed.

#### **8.3.6 Quality Control Analyses**

To provide an external check of the quality of the field procedures and laboratory analyses, two types of QC samples (duplicate samples and trip blanks) will be collected and analyzed. Blank samples will be analyzed to check for cross-contamination during sample shipment (trip). Duplicate samples will provide a check for sampling and analytical error.

In addition to the external QA/QC controls, internal QC procedures are maintained by the laboratory. Internal QC samples will include laboratory blanks (i.e., method blanks, preparation blanks), laboratory duplicates, MS/MSDs, and LCS/LCSDs.

**8.3.7 Documentation and Records**

The laboratories will submit analytical data reports. Each data report will contain a case narrative that briefly describes the number of samples, the analyses, and any analytical difficulties or QA/QC issues associated with the submitted samples. The data report will also include signed chain-of-custody forms, cooler receipt forms, analytical data, a QC package, and raw data. An electronic copy of the data will also be provided by the laboratories. This electronic copy is detailed in the subcontract with the laboratory.

Project records, including reports, field data, analytical data, audit reports, and any other records applicable to the project will be maintained in the project file. The official project record will be maintained by Fresno County.

## 9.0 DATA EVALUATION PLAN

In accordance with CCR, Title 22, Section 66264.100(d), in conjunction with the corrective action measures, the owner or operator shall establish and implement a water quality monitoring program to demonstrate the effectiveness of the CAMP. The water quality monitoring program shall include a data evaluation plan in the approved SAP. Such data evaluation plan may vary over time in accordance with statistical and other procedures set forth in the approved SAP.

At the Blue Hills Disposal Facility, because groundwater has been impacted by wastes placed in the WMUs, a proper baseline for prediction limits or concentration limits for intrawell data analysis cannot be developed. In addition, natural variation in groundwater and the lack of a true background wells is problematic for interwell data analysis. Therefore, the recommended water quality protection standard consists of trend analysis for each detected monitoring parameter and COC for each monitoring point. As discussed in Section 6.0, monitoring parameters are a subset of COCs, and are deemed to be the best indicators of the release from the facility. Monitoring parameters and COCs are listed in Section 6 and under WDR Order No. 99-087 (or it's revisions or replacement) and additions listed above in Section 6.

### 9.1 Statistical Evaluation Plan

As an alternative to intrawell or interwell data analysis, a trend test is recommended to measure the magnitude of stable, increasing, or decreasing concentration trends over time. In a CAMP, trend analyses provide answer to the following questions:

- 1) is there a statistically significant increasing or decreasing trend over the period of monitoring?
- 2) what is the magnitude (i.e., slope) of the trend?

By identifying a positive or negative trend, the effectiveness of the corrective measures can be evaluated. Furthermore, by measuring the magnitude of the trend, i.e., the average rate of increase or decrease per unit of time, one can estimate how rapidly the concentration levels are increasing or decreasing. Based on such trend analysis data evaluation, the facility can accordingly adjust the ongoing remediation strategy to achieve better and more efficient remediation results. The trend analyses for the Blue Hills Disposal Facility are discussed below.

#### 9.1.1 Trend Analysis Procedures For Inorganic Constituents, Metals, Dicamba, and MCPP

Trend analyses for groundwater monitoring data at Blue Hills Disposal Facility will focus on the use of non-parametric tests for trend, which are recommended by US EPA Unified Guidance (USEPA, 2004), Gilbert (1987), and Gibbons (1994). The non-parametric tests for trend are easy to implement and do not require the underlying data to be normally-distributed. Furthermore, non-detects can be handled in a straightforward manner without requiring special adjustments or imputation techniques. Based on the selection of monitoring parameters and COCs and their monitoring frequency in Section 6, trend tests are to be conducted as follows:



- Semi-annual monitoring parameters (TDS, TOC, chlorophenoxy herbicides, volatile organic compounds (extended list) in wells with historic impacts of these constituents)
- Annual monitoring parameters (calcium, magnesium, potassium, sodium, sulfate, nitrate as nitrogen, and chloride)
- Five-year COCs (metals [arsenic, copper, lead, mercury, and zinc], cyanide, organochloride pesticides, and PCBs).

Mann-Kendall Trend Test in conjunction with Sen's slope estimate, will be used to perform the trend analysis of groundwater monitoring data for the Blue Hills Disposal Facility. While the Mann-Kendall trend test indicates whether a trend exists, the Sen's slope estimate is a non-parametric estimate of this trend magnitude. The trend analyses of the monitoring parameters or COCs for each monitoring point will be calculated using a statistical analysis computer program such as Sanitas™.

#### **9.1.2 Handling Non-Detects**

For both Mann-Kendall test and Sen's slope estimate, non-detects will be assigned a common value less than any other detected measurements (i.e., half of the PQL) (USEPA, 2004).

#### **9.1.3 Mann-Kendall Trend Analysis/Sen's Slope Plots**

The Mann-Kendall trend/Sen's Slope test will be performed on all monitoring points for monitoring parameters. The Mann-Kendall trend/Sen's Slope tests will be performed to assess the analytical data to determine if there is an increasing or decreasing trend when plotted. The results will be used to assess the effectiveness of the semi-annual monitoring for natural attenuation at the Blue Hills Disposal Facility.

The Mann-Kendall trend/Sen's Slope test is a non-parametric test based on all data, consequently short-term data may not reflect the results derived from the Mann-Kendall trend/Sen's Slope test. Short-term analytical results, such as those over the last three monitoring events, for example, may indicate concentrations that are different from those anticipated by the Mann-Kendall trend/Sen's Slope test slope line.

Trend analyses for semi-annual monitoring parameters will be performed after each monitoring event, and the results will be included in the Semiannual Monitoring Report. Trend analyses for annual monitoring parameters and 5-year COCs will be performed after each monitoring event and will be submitted in the next appropriate monitoring report.

## 10.0 REPORTING

Semiannual and annual groundwater monitoring reports will be submitted that are consistent with previous annual reports submitted by Fresno County and that fully comply with the Article 5 and Article 6 requirements of Title 23 and Title 22, respectively. All historic groundwater analytical and field data will be included in the reports. Semiannual and annual monitoring reports, including the results of statistical and non-statistical analyses, will be submitted to the DTSC and RWQCB by the following dates:

- August 31: First Semiannual Groundwater Monitoring Report.
- February 28 (following the end of the reporting period calendar year): Second Semiannual Groundwater Monitoring Report and Analysis of Annual Constituents of Concern (and 5-Year Constituents of Concern, when applicable).

In addition to the semiannual and annual monitoring reports submitted to the DTSC and RWQCB in traditional "hardcopy" format, the reports will also be submitted via upload to the RWQCB GeoTracker database during the compliance period. Electronic copies of reports will also be submitted to DTSC.

Semiannual and annual monitoring reports will show laboratory analytical data for constituents of concern and monitoring parameters in tabular format. Organic and inorganic monitoring parameters and COCs with current or previous detections will also be shown in graphical format in each semiannual report. Each graph will plot the concentrations of a single analyte detected in groundwater samples from all site monitoring wells at the site. The graphs will be plotted at a scale adequate to show trends or variations in water quality. The tables and graphs will show laboratory analytical data for all samples taken within at least the previous 5 years. Each semiannual report will also include:

- A tabulation of groundwater surface elevations (in feet and hundredths of feet, msl) measured in site monitoring wells, and a description of the method and time of water level measurement.
- Determination of groundwater velocity and graphical representation of groundwater flow direction based on the measured groundwater surface elevations.
- A description of the type of pump or other device used for purging and sampling and its placement in the well. This information may be contained in the field notes, which will be a part of the report.
- A description of the flow-through cell and other equipment and methods used to monitor field pH, temperature, electrical conductivity, dissolved oxygen, oxidation reduction potential, and turbidity during low-flow purging, the calibration of the field equipment, and the method of disposing of the purge water. This information may be contained in the field notes, which will be a part of the report.
- A description of the sampling procedures, the number of wells sampled, whether travel blanks were submitted for analysis, and whether duplicate samples were collected, the type of containers and preservatives used, the date and time of sampling, the name of

the person actually taking the samples, and any other observations. This information may be contained in the field notes, which will be a part of the report.

- A map showing the locations of CAMP monitoring wells.
- A map showing the approximate zone of saturation of the Ss1 sandstone unit and the approximate limits of contamination.

## 11.0 CORRECTIVE ACTION PROGRAM SUMMARY

The CAP for the Blue Hills Disposal Facility consists of three potential phases: 1) monitored natural attenuation, 2) groundwater extraction for treatment, and 3) re-evaluation for returning for monitored natural attenuation. The preferred CAP for the Blue Hills Disposal Facility consists of natural attenuation with continued groundwater monitoring. The rationale for this alternative is discussed in the draft *Evaluation Monitoring Program, Engineering Feasibility Study, and Corrective Action Plan, Blue Hills Disposal Facility, Fresno County, California* submitted to the RWQCB and the DTSC in August 2003. If future site monitoring data indicates a sustained presence of dicamba or MCPP in downgradient monitoring wells, other than well E-3, then the groundwater extraction alternative summarized below should be implemented. If innovative and more efficient remediation technology becomes available than the contingency alternatives evaluated in the EFS and summarized below, then Fresno County will investigate the viability of using such technology at the Blue Hills Disposal Facility and present the alternatives to the DTSC and RWQCB where applicable.

The groundwater extraction alternative consists of extracting impacted groundwater from well E-3 and using the extracted groundwater for dust control in areas of the site located upgradient of monitoring well E-3. Since the site is located in a remote area with no nearby electrical power, pumping of groundwater would take place with the use of a solar powered submersible pump. The submersible pump, and the discharge tubing inside of the well are to be made of stainless steel to minimize corrosion damage. It is expected that approximately 20 gallons per day could be extracted from groundwater monitoring well E-3, or approximately 600 gallons per month. Extracted groundwater would be sprayed over a broad area of the site using a pre-plumbed header pipe, laterals, and impact sprinklers. The extracted groundwater would be sprayed at a rate to assure infiltration and no runoff. To insure that the relatively low concentrations of contaminants of concern are not accumulating in surface soil in the spray area, annual surface soil sampling would be conducted prior to the application of any extracted groundwater. After one year of operation, surface soil in the area receiving extracted groundwater would be resampled for constituents of concern to assess any accumulation of these constituents. If notable concentrations of dicamba or MCPP are detected in surface soils then the activated carbon alternative summarized below should be implemented.

The activated carbon alternative consists of treating groundwater with granulated activated carbon (GAC) prior to using the extracted groundwater for dust control. Before this remedial alternative can be implemented however, a bench scale test is required to evaluate the efficiency of GAC in removing dicamba and MCPP from extracted groundwater. If the bench scale test indicates favorable results, this remedial action alternative will involve the use of two GAC filters, a primary filter and a polishing filter. The size of each filter canisters is dependant on the effectiveness of the GAC to remove the respective constituents of concern. This remediation alternative will involve sampling the extracted groundwater at the inlet to the primary filter, outlet of the primary filter, and the outlet of the polishing filter. If contaminant breakthrough is detected in the primary filter, the filter will be changed. When a primary filter is replaced the new filter will become the polishing filter and the former polishing filter will become the primary filter. The purpose of this is to maximize the use of the GAC within each filter. The spent GAC will be properly disposed by a licensed professional service experienced in handling and replacing GAC.

During previous quarterly groundwater monitoring events the water-bearing zones of the Ss1 and Ss2 sandstone units have been demonstrated to be low-permeability formations. These sandstone units are separated from each other by low permeability claystone units that act as aquitards that restrict groundwater flow between water bearing zones. If the groundwater extraction alternative is initiated and the low well yields and/or pumping of the extraction well caused the well to dewater, then the groundwater extraction alternative will have to be re-evaluated. If the extraction well remains dry, then a contingency plan for returning to monitoring natural attenuation with continued groundwater monitoring will be performed. In addition to returning to monitoring natural attenuation, the contingency plan will also evaluate forms of enhanced natural attenuation for the site.

## 12.0 COMPLIANCE PERIOD

The compliance period is defined in Title 23 Section 2550.6 as the number of years equal to the active life of the WMU (including any waste management activity prior to the adoption of the waste discharge requirements) plus the closure period. The compliance period is the minimum period of time during which the discharger (County of Fresno) shall conduct a water quality monitoring program subsequent to a release from the WMU. The compliance period begins anew each time the discharger initiates an EMP in accordance to requirements of Title 23 Section 2550.9. If the discharger is engaged in a CAP at the scheduled end of the compliance period, the compliance period shall be extended by the regulatory agencies until the discharger can demonstrate that the WMU has been in continuous compliance with its water quality protection standards of Title 23 Section 2550.2 for a period of three consecutive years.

Background information from the Blue Hills Disposal Facility indicates that the site started to accept waste in November 1973. All waste disposal operations at the site ceased in October 1991. Closure construction activities began in September 1992 and were completed on December 1, 1992. The construction report for the final cover placement was submitted in June 1993. Based on this information and the above compliance regulations, the compliance period of the Blue Hills Disposal Facility would be 20 years. However, the regulations stipulate that unless a facility is clean closed, the facility is still subject to post-closure monitoring under Title 23 or Title 22 Section 66264.117. The post-closure monitoring period is a minimum of 30 years. The DTSC and the RWQCB may extend the post-closure monitoring period beyond the 30-year minimum to protect human health and the environment. Under Title 23 Section 2580(a) the post-closure care monitoring period for Class I facilities "shall be extended for as long as wastes pose a threat to water quality." If a facility is clean closed, the owner/operator must demonstrate compliance with the WQPS for three consecutive years before groundwater monitoring can cease and closure certification can be issued.

**13.0 FINANCIAL ASSURANCE**

The County of Fresno is the owner or operator of the Blue Hills Disposal Facility for which financial assurance for closure and post-closure care is demonstrated through the financial test specified in 22 CCR, division 4.5, chapter 14 and 15, article 8, sections 66264.143 (f), 66264.145 (f), 66265.143 (e); and 66265.145 (e).

## 14.0 REFERENCES

- Adegoke, O.S. 1969. Stratigraphy and paleontology of the marine Neogene formations of the Coalinga Rigiou, California. University of California Publications in the Geological Science, v. 80.
- Anderson. 1952. Coalinga oil fields (Fresno County). Am. Assoc. Petroleum Geologists-Soc. Econ. Paleontologists and Mineralogists-Soc. Exploration. Geophysicists Guidebook, Field Trip.
- Arnold, R. 1909. Paleontology of the Coalinga district, Fresno and Kings Counties, California. U.S. Geological Survey, Bulletin 396.
- Arnold, R., and Anderson, R. 1910. Geology and oil resources of the Coalinga district, California. U.S. Geological Survey, Bulletin 398.
- Barcelona, M.J., Varljen, M.D., Puls, R.W., and Kaminski, D. 2005. Groundwater Purging and Sampling Methods: History vs. Hysteria. Ground Water Monitoring & Remediation 25, no.1. Winter 2005. pg 52-62.
- California Department of Toxic Substances Control (DTSC). 2001. Guidance Document Monitoring requirements For Permitted Hazardous Waste Facilities. July.
- California Regional Water Quality Control Board, Central Valley Region (RWQCB), 1999. Waste Discharge Requirements, Order No. 99-087, for Blue Hills Disposal Facility, Fresno County.
- Cohen, A. C. Jr., 1959. Simplified Estimators for the Normal Distribution When Samples Are Singly Censored or Truncated. Technometrics, 1: 217-237
- EMCON Associates. 1986a. Hydrogeologic Investigation, Blue Hills Disposal Site, Fresno County, California.
- EMCON Associates. 1986b. Groundwater Monitoring Plan, Blue Hills Disposal Facility, Fresno County, California.
- EMCON Associates. 1988. August 1987 Monitoring Well Installation and Groundwater Sampling and Analysis, Blue Hills Disposal Facility, Fresno County, California.
- EMCON Associates. 1993a. Construction Report Final Cover Placement, Blue Hills Disposal Facility, Fresno County, California.
- EMCON Associates. 1993b. Water Quality Protection Standards Blue Hills Disposal Facility. Fresno County California.
- EMCON Associates. 1996a. Hydrogeologic Update Investigation Blue Hills Disposal Facility Fresno County, California.



- EMCON. 1996b. Groundwater Monitoring Plan, Blue Hills Disposal Facility, Coalinga, California. March
- EMCON. 1998a. Addendum to the March 1996 Groundwater Monitoring Plan for the Blue Hills Disposal Facility, Coalinga, California. August 12, 1998.
- EMCON. 1998b. Addendum No. 2 to the March 1996 Groundwater Monitoring Plan for the Blue Hills Disposal Facility, Coalinga, California. October 28, 1998.
- Gibbons, R. D. 1994. Statistical Methods for Groundwater Monitoring. New York: John Wiley & Sons.
- Gilbert, R.O. 1987. Statistical methods for environmental pollution monitoring. Van Nostrand Reinhold Co., New, New York, 320p.
- Hollander, M. and Wolfe, D. A., 1973. Non parametric Statistical Methods. John Wiley & Sons.
- Jennings, C.W. 1975. Fault Map of California. California Division of Mines and Geology.
- Jennings, C.W. 1977. Geologic Map of California. California Division of Miles and Geology.
- Kleinfelder & Associates. 1983. Big Blue Hills Disposal Facility Phase I geotechnical investigation and operations review. Prepared for Fresno County Resources and Development Department.
- Kaplow, E.J. (1945). Coalinga oil field (Fresno County). California Oil Fields, v. 31.
- Namson, J.S., and Davis, T.L. 1988. Seismically active fold and thrust belt in the San Joaquin Valley, California. Geological Society of America Bulletin, v. 100, pp. 257-273.
- Puls, R.W. and Paul, C.J., 1995. "Low-Flow Purging and Sampling of Groundwater Monitoring Wells with Dedicated Systems" in Ground Water Monitoring and Remediation, Vol. 16 (1), pp 116-123.
- QED Environmental Systems, 1999. Low-Flow/Low-Volume Purging and Sampling of Ground-Water Monitoring Wells Performance and Application Criteria. Version 4. June.
- SECOR. 2006. Fourth Quarter 2005 Groundwater Monitoring Report and 2005 Annual Evaluation for Blue Hills Disposal Facility, Coalinga, California. February.
- USEPA. 1989. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance. EPA/530- SW-89-026. Office of Solid Waste, Waste Management Division. U.S. EPA. Washington, D.C., February.
- USEPA. 1992. Statistical analysis of ground-water monitoring data at RCRA facilities, draft addendum to interim final guidance. July.

- USEPA. 2004. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. DRAFT. EPA 530-x-04-xxx.
- USEPA. 1996. Ground Water Issue, Publication Number EPA/540/S-95/504, by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures". April.
- ValleyGeo. 2003a. (Draft) Groundwater Monitoring Plan, Blue Hills Disposal Facility, Coalinga, California. July.
- ValleyGeo. 2003b. (Draft) Evaluation Monitoring Program, Engineering Feasibility Study, and Corrective Action Plan, Blue Hills Disposal Facility, Fresno County, California. August.
- ValleyGeo. 2004a. Monitoring Well E-10 Construction Report, Blue Hills Disposal Facility, Coalinga, California. July.
- ValleyGeo. 2004b. Third Quarter 2004 Groundwater Monitoring Report Blue Hills Disposal Facility, Fresno County California. October.
- Varljen, M.D., Barcelona, M.J., Obereiner, O., and Kaminski, D. 2006. Numerical Simulations to Assess the Monitoring Zone Achieved During Low-Flow Purging and Sampling. Ground Water Monitoring & Remediation 26. no. 1. Winter 2006. pg. 44-52.
- Yeskis, D. and Zavala, B. 2002. Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers Ground Water Forum Issue Paper (EPA 542-S-02-001). May.

## 15.0 LIMITATIONS

This report was prepared in accordance with the scope of work outlined in SECOR's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of Fresno County for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to SECOR. To the extent that this report is based on information provided to SECOR by third parties, SECOR may have made efforts to verify this third party information, but SECOR cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by SECOR.

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All information, conclusions, and recommendations provided by SECOR in this document regarding the Site have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

Licensed Approver:

Name: Steve Strait, P.G., C.E.G., C.HG.

Signature:



Date: 7/12/07

Stamp:



## ATTACHMENT A

**Table 1**  
**Waste Disposal List**  
**Blue Hills Disposal Facility**

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Botran	Captan	Sulfur
Thiodan	Parathion	Paraquat
Phosdrin	2,4-D	DiSystin
organic phosphates	Kepone	Dimate
Lindane	Orthothide 50	Capitah 50
B.H.C. 10	Diazinon	Tedion
Dieldrin	Aramite	Bluestone
Botran/Aramite mix	Glacron	Kelthane
TOK WP-50	Clordane	Eptam
Thoricide	By Gon	Cyanamid
Berban	Sevin	Kromad
VPM	Acti-Dione	2,4,5-T
Dowpon	Maximul	lead aremate
silver (Kuren)	DDT	zinc phosphide
Dithane Z-78	Ryamicide 100	Chloropicrin
cycloheximide	DDVP	Zineb 75
Malathion 25	Dacthol G-5	Flit-NLO
Dibrom/Sevin mix	Throdan	Quthion
copper sulfate	TDE	methyl bromide
standard lead (91 lbs.)	Phosphamidon	Treflan
Methylurea	Maleic hydrazide	Sinbar
Dimitro-o-sec-butylphenol	Sequestriene	Maneb
Cyprex	Nemagon	Diacelosypropene
CH <sub>3</sub> Br	Check-Turf	Gro-Tard
Endrin	Terrachlor	Pyrethrins
Sinox	Strychnine	Tetrachthyl pryophosphate
sludge acid	Supracide	Curacron
Galecron	Metasystox	Lorslian 4E
Nemacur	Azodrin	Round-up
Folex	Monitor	Chloropyrifos
Fenthion	Phytar	Brominal
Ethylene Dibromide	Sonalan	Rubigan
Balan	Timik	Endothal 96
Altosid	Baytex	Endosulphan Tech
Killmaster #2	Nitrophenal	

**ATTACHMENT A**

**Table 2  
Construction Details of Monitoring Wells  
Blue Hills Disposal Facility**

Well	Construction Date	Casing Dia. (inches)	Old Top of Casing Elev. (ft., MSL) <sup>1</sup>	New Top of Casing Elev. (ft., MSL) <sup>1,2,5</sup>	New Ground Surface Elev. (ft., MSL) <sup>1,5</sup>	Screened Interval (ft., BTOC) <sup>3</sup>	Screened Interval (ft. MSL) <sup>1,5</sup>	Well Depth (ft., BTOC) <sup>3</sup>	Latitude	Longitude	Range of Historic Groundwater Elevations (ft. MSL) <sup>1,5</sup>	Geologic Unit Monitored
B-204A	NI <sup>4</sup>	2	NI <sup>4</sup>	NI <sup>4</sup>		145-155	NI <sup>4</sup>	155.5	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>2</sub>
B-204B	NI <sup>4</sup>	2	842.90	846.01	845.71	98-108	738.01-748.01	108.5	36.3070466	120.3217207	757.35-763.19	Ss <sub>1</sub>
B-204C	NI <sup>4</sup>	2	842.50	NI <sup>4</sup>		57-67	775.5-785.5	82.5	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>1</sub>
B-207	9/27/1993	2	845.10	849.52	848.64	55-80	769.52-794.52	80.4	36.3069279	120.3218569	779.36-795.45	Ss <sub>1</sub>
E-1A	5/22/1986	2	858.48	NI <sup>4</sup>		82-112	746.48-776.48	118.5	NI <sup>4</sup>	NI <sup>4</sup>	749.21-766.46	Ss <sub>1</sub>
E-1B	5/23/1986	2	858.76	NI <sup>4</sup>		133-163	695.76-725.76	169.6	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>2</sub>
E-1C	5/22/1986	2	858.50	NI <sup>4</sup>		179-189	669.50-679.50	195.0	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>3</sub>
E-1D	3/19/1986	2	858.48	NI <sup>4</sup>		203-243	615.48-655.48	248.5	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>4</sub>
E-2	3/23/1986	4	857.71	860.83	859.54	87-127	733.83-773.83	128.9	36.3075746	120.3219753	744.21-770.37	Ss <sub>1</sub>
E-3	3/19/1986	4	848.77	851.87	850.97	74-114	737.87-777.87	115.4	36.3073329	120.3218294	759.74-766.37	Ss <sub>1</sub>
E-4	4/3/1986	2	891.57	NI <sup>4</sup>	894.17	218-258	633.57-673.57	264.0	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>4</sub>
E-5	5/20/1986	2	850.56	NI <sup>4</sup>		202-242	608.56-648.56	244.0	NI <sup>4</sup>	NI <sup>4</sup>	NI <sup>4</sup>	Ss <sub>4</sub>
E-6	8/5/1987	2	894.43	897.66	897.28	136-201	696.66-761.66	202.0	36.3064562	120.3209070	693.02-715.72	Ss <sub>1</sub>
E-7	8/4/1987	2	843.27	846.33	845.52	137-162	684.33-709.33	163.5	36.3070892	120.3216650	690.70-696.85	Ss <sub>2</sub>
E-9	3/28/1995	3	834.83	838.02	836.35	133-163	675.02-705.02	163.5	36.3074913	120.3212812	714.90-720.11	Ss <sub>1</sub>
E-10	4/30/2004	3*	837.79	841.04	839.39	168.82-188.45	652.59-672.22	188.8	36.3074114	120.3215572	662.72-666.10	Ss <sub>2</sub>

Notes:

<sup>1</sup> ft., MSL = Elevation in feet measured relative to mean sea level

<sup>2</sup> Top of Well PVC used as measuring point for depth to water. Resurveyed for Geotracker submittals in 2005.

<sup>3</sup> ft., BTOC = Feet below top of casing

<sup>4</sup> NI = No information readily available

<sup>5</sup> Elevations based on North American Vertical Datum (NAVD) of 1988

\* = Well screen is 3-inch Schedule 80 (I.D. 2-7/8")

**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
B-204B	Ss <sub>1</sub>	842.90	7/25/1983	77.90	765.00
B-204B	Ss <sub>1</sub>	842.90	8/2/1983	80.80	762.10
B-204B	Ss <sub>1</sub>	842.90	8/9/1983	80.60	762.30
B-204B	Ss <sub>1</sub>	842.90	7/14/1986	79.74	763.16
B-204B	Ss <sub>1</sub>	842.90	8/26/1987	79.98	762.92
B-204B	Ss <sub>1</sub>	842.90	12/23/1987	80.00	762.90
B-204B	Ss <sub>1</sub>	842.90	3/30/1988	79.85	763.05
B-204B	Ss <sub>1</sub>	842.90	6/29/1988	80.19	762.71
B-204B	Ss <sub>1</sub>	842.90	8/11/1988	80.06	762.84
B-204B	Ss <sub>1</sub>	842.90	9/28/1988	80.49	762.41
B-204B	Ss <sub>1</sub>	842.90	1/5/1989	80.51	762.39
B-204B	Ss <sub>1</sub>	842.90	6/28/1989	80.98	761.92
B-204B	Ss <sub>1</sub>	842.90	1/19/1990	81.54	761.36
B-204B	Ss <sub>1</sub>	842.90	4/4/1990	81.56	761.34
B-204B	Ss <sub>1</sub>	842.90	8/27/1990	82.18	760.72
B-204B	Ss <sub>1</sub>	842.90	11/1/1990	82.33	760.57
B-204B	Ss <sub>1</sub>	842.90	1/24/1991	82.56	760.34
B-204B	Ss <sub>1</sub>	842.90	4/17/1991	82.61	760.29
B-204B	Ss <sub>1</sub>	842.90	7/17/1991	82.89	760.01
B-204B	Ss <sub>1</sub>	842.90	10/23/1991	83.02	759.88
B-204B	Ss <sub>1</sub>	842.90	1/20/1992	83.40	759.50
B-204B	Ss <sub>1</sub>	842.90	4/13/1992	83.33	759.57
B-204B	Ss <sub>1</sub>	842.90	7/16/1992	82.81	760.09
B-204B	Ss <sub>1</sub>	842.90	3/9/1993	81.15	761.75
B-204B	Ss <sub>1</sub>	842.90	5/23/1994	80.00	762.90
B-204B	Ss <sub>1</sub>	842.90	8/18/1994	79.71	763.19
B-204B	Ss <sub>1</sub>	842.90	11/21/1994	79.93	762.97
B-204B	Ss <sub>1</sub>	842.90	2/22/1995	79.93	762.97
B-204B	Ss <sub>1</sub>	842.90	5/22/1995	79.94	762.96
B-204B	Ss <sub>1</sub>	842.90	8/28/1995	81.22	761.68
B-204B	Ss <sub>1</sub>	842.90	12/5/1995	80.67	762.23
B-204B	Ss <sub>1</sub>	842.90	3/20/1996	80.73	762.17
B-204B	Ss <sub>1</sub>	842.90	6/24/1996	80.84	762.06
B-204B	Ss <sub>1</sub>	842.90	9/24/1996	81.14	761.76
B-204B	Ss <sub>1</sub>	842.90	12/12/1996	81.51	761.39
B-204B	Ss <sub>1</sub>	842.90	3/17/1997	81.80	761.10
B-204B	Ss <sub>1</sub>	842.90	5/13/1997	81.64	761.26
B-204B	Ss <sub>1</sub>	842.90	10/13/1997	82.35	760.55
B-204B	Ss <sub>1</sub>	842.90	12/29/1997	82.45	760.45
B-204B	Ss <sub>1</sub>	842.90	3/31/1998	82.21	760.69
B-204B	Ss <sub>1</sub>	842.90	4/30/1998	82.41	760.49
B-204B	Ss <sub>1</sub>	842.90	11/30/1998	82.74	760.16
B-204B	Ss <sub>1</sub>	842.90	12/28/1998	83.08	759.82
B-204B	Ss <sub>1</sub>	842.90	3/24/1999	82.72	760.18
B-204B	Ss <sub>1</sub>	842.90	5/19/1999	82.98	759.92
B-204B	Ss <sub>1</sub>	842.90	9/8/1999	82.93	759.97

**ATTACHMENT A**

**Table 3  
Water Level Elevations  
Active Monitoring Wells  
Blue Hills Disposal Facility**

<b>Well</b>	<b>Geologic Unit Monitored</b>	<b>Top of Casing Elev. (ft., MSL) <sup>1</sup></b>	<b>Date</b>	<b>Depth to Water</b>	<b>GW Elev. (ft., MSL) <sup>1</sup></b>
B-204B	Ss <sub>1</sub>	842.90	12/28/1999	83.43	759.47
B-204B	Ss <sub>1</sub>	842.90	3/16/2000	83.20	759.70
B-204B	Ss <sub>1</sub>	842.90	6/27/2000	83.10	759.80
B-204B	Ss <sub>1</sub>	842.90	9/27/2000	83.22	759.68
B-204B	Ss <sub>1</sub>	842.90	12/5/2000	83.52	759.38
B-204B	Ss <sub>1</sub>	842.90	3/21/2001	83.37	759.53
B-204B	Ss <sub>1</sub>	842.90	6/20/2001	83.46	759.44
B-204B	Ss <sub>1</sub>	842.90	9/20/2001	83.56	759.34
B-204B	Ss <sub>1</sub>	842.90	12/6/2001	84.05	758.85
B-204B	Ss <sub>1</sub>	842.90	3/11/2002	84.00	758.90
B-204B	Ss <sub>1</sub>	842.90	5/2/2002	83.80	759.10
B-204B	Ss <sub>1</sub>	842.90	9/23/2002	83.95	758.95
B-204B	Ss <sub>1</sub>	842.90	12/11/2002	84.35	758.55
B-204B	Ss <sub>1</sub>	842.90	1/20/2003	84.30	758.60
B-204B	Ss <sub>1</sub>	842.90	4/14/2003	84.15	758.75
B-204B	Ss <sub>1</sub>	842.90	8/25/2003	84.35	758.55
B-204B	Ss <sub>1</sub>	842.90	10/22/2003	84.60	758.30
B-204B	Ss <sub>1</sub>	842.90	1/20/2004	84.60	758.30
B-204B	Ss <sub>1</sub>	842.90	4/1/2004	84.66	758.24
B-204B	Ss <sub>1</sub>	842.90	7/1/2004	84.65	758.25
B-204B	Ss <sub>1</sub>	842.90	10/13/2004	84.90	758.00
B-204B	Ss <sub>1</sub>	842.90	3/8/2005	85.27	757.63
B-204B	Ss <sub>1</sub>	842.90	5/3/2005	85.20	757.70
B-204B	Ss <sub>1</sub>	842.90	8/23/2005	85.13	757.77
B-204B	Ss <sub>1</sub>	842.90	11/1/2005	85.55	757.35
B-204B	Ss <sub>1</sub>	842.90	1/24/2006	85.48	757.42
B-204B <sup>3</sup>	Ss <sub>1</sub>	846.01	5/9/2006	85.60	760.41
B-204B	Ss <sub>1</sub>	846.01	8/1/2006	85.54	760.47
B-204B	Ss <sub>1</sub>	846.01	10/10/2006	85.67	760.34
B-204B	Ss <sub>1</sub>	846.01	2/5/2007	85.88	760.13
<b>B-207</b>	Ss <sub>1</sub>	845.10	7/25/1983	49.65	795.45
B-207	Ss <sub>1</sub>	845.10	8/2/1983	49.65	795.45
B-207	Ss <sub>1</sub>	845.10	8/9/1983	52.55	792.55
B-207	Ss <sub>1</sub>	845.10	7/14/1986	54.84	790.26
B-207	Ss <sub>1</sub>	845.10	8/26/1987	56.44	788.66
B-207	Ss <sub>1</sub>	845.10	12/23/1987	56.40	788.70
B-207	Ss <sub>1</sub>	845.10	3/30/1988	56.28	788.82
B-207	Ss <sub>1</sub>	845.10	6/29/1988	56.87	788.23
B-207	Ss <sub>1</sub>	845.10	9/28/1988	57.18	787.92
B-207	Ss <sub>1</sub>	845.10	1/5/1989	57.24	787.86
B-207	Ss <sub>1</sub>	845.10	6/28/1989	57.69	787.41
B-207	Ss <sub>1</sub>	845.10	1/19/1990	58.11	786.99
B-207	Ss <sub>1</sub>	845.10	4/4/1990	58.11	786.99
B-207	Ss <sub>1</sub>	845.10	8/27/1990	58.64	786.46
B-207	Ss <sub>1</sub>	845.10	11/1/1990	58.69	786.41
B-207	Ss <sub>1</sub>	845.10	1/24/1991	58.79	786.31

**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
B-207	Ss <sub>1</sub>	845.10	4/17/1991	58.94	786.16
B-207	Ss <sub>1</sub>	845.10	7/17/1991	59.16	785.94
B-207	Ss <sub>1</sub>	845.10	10/23/1991	59.17	785.93
B-207	Ss <sub>1</sub>	845.10	1/20/1992	59.40	785.70
B-207	Ss <sub>1</sub>	845.10	4/13/1992	58.82	786.28
B-207	Ss <sub>1</sub>	845.10	7/16/1992	59.71	785.39
B-207	Ss <sub>1</sub>	845.10	3/9/1993	Dry	Dry
B-207	Ss <sub>1</sub>	845.10	8/18/1994	62.93	782.17
B-207	Ss <sub>1</sub>	845.10	11/21/1994	63.49	781.61
B-207	Ss <sub>1</sub>	845.10	2/22/1995	63.20	781.90
B-207	Ss <sub>1</sub>	845.10	5/22/1995	63.11	781.99
B-207	Ss <sub>1</sub>	845.10	8/28/1995	64.05	781.05
B-207	Ss <sub>1</sub>	845.10	12/5/1995	63.15	781.95
B-207	Ss <sub>1</sub>	845.10	3/20/1996	63.20	781.90
B-207	Ss <sub>1</sub>	845.10	6/24/1996	63.20	781.90
B-207	Ss <sub>1</sub>	845.10	9/24/1996	63.27	781.83
B-207	Ss <sub>1</sub>	845.10	12/12/1996	63.44	781.66
B-207	Ss <sub>1</sub>	845.10	3/17/1997	63.59	781.51
B-207	Ss <sub>1</sub>	845.10	5/13/1997	63.32	781.78
B-207	Ss <sub>1</sub>	845.10	10/13/1997	63.92	781.18
B-207	Ss <sub>1</sub>	845.10	12/29/1997	63.67	781.43
B-207	Ss <sub>1</sub>	845.10	3/31/1998	63.62	781.48
B-207	Ss <sub>1</sub>	845.10	4/30/1998	63.81	781.29
B-207	Ss <sub>1</sub>	845.10	11/30/1998	64.03	781.07
B-207	Ss <sub>1</sub>	845.10	12/28/1998	64.16	780.94
B-207	Ss <sub>1</sub>	845.10	3/24/1999	64.00	781.10
B-207	Ss <sub>1</sub>	845.10	5/19/1999	64.21	780.89
B-207	Ss <sub>1</sub>	845.10	9/8/1999	64.28	780.82
B-207	Ss <sub>1</sub>	845.10	12/28/1999	64.51	780.59
B-207	Ss <sub>1</sub>	845.10	3/16/2000	64.40	780.70
B-207	Ss <sub>1</sub>	845.10	6/27/2000	64.22	780.88
B-207	Ss <sub>1</sub>	845.10	9/27/2000	64.63	780.47
B-207	Ss <sub>1</sub>	845.10	12/5/2000	64.69	780.41
B-207	Ss <sub>1</sub>	845.10	3/21/2001	64.22	780.88
B-207	Ss <sub>1</sub>	845.10	6/20/2001	64.66	780.44
B-207	Ss <sub>1</sub>	845.10	9/20/2001	64.22	780.88
B-207	Ss <sub>1</sub>	845.10	12/6/2001	65.10	780.00
B-207	Ss <sub>1</sub>	845.10	3/11/2002	64.90	780.20
B-207	Ss <sub>1</sub>	845.10	5/2/2002	64.80	780.30
B-207	Ss <sub>1</sub>	845.10	9/23/2002	64.83	780.27
B-207	Ss <sub>1</sub>	845.10	12/11/2002	65.13	779.97
B-207	Ss <sub>1</sub>	845.10	1/20/2003	64.93	780.17
B-207	Ss <sub>1</sub>	845.10	4/14/2003	64.87	780.23
B-207	Ss <sub>1</sub>	845.10	8/25/2003	65.10	780.00
B-207	Ss <sub>1</sub>	845.10	10/22/2003	65.20	779.90
B-207	Ss <sub>1</sub>	845.10	1/20/2004	65.14	779.96



**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
B-207	Ss <sub>1</sub>	845.10	4/1/2004	65.20	779.90
B-207	Ss <sub>1</sub>	845.10	7/1/2004	65.30	779.80
B-207	Ss <sub>1</sub>	845.10	10/13/2004	65.47	779.63
B-207	Ss <sub>1</sub>	845.10	3/8/2005	65.61	779.49
B-207	Ss <sub>1</sub>	845.10	5/3/2005	65.56	779.54
B-207	Ss <sub>1</sub>	845.10	8/23/2005	65.54	779.56
B-207	Ss <sub>1</sub>	845.10	11/1/2005	65.74	779.36
B-207	Ss <sub>1</sub>	845.10	1/24/2006	65.62	779.48
B-207 <sup>3</sup>	Ss <sub>1</sub>	849.52	5/9/2006	65.72	783.80
B-207	Ss <sub>1</sub>	849.52	8/1/2006	65.83	783.69
B-207	Ss <sub>1</sub>	849.52	10/10/2006	65.82	783.70
B-207	Ss <sub>1</sub>	849.52	2/5/2007	65.91	783.61
E-1A	Ss <sub>1</sub>	858.48	7/14/1986	104.85	753.63
E-1A	Ss <sub>1</sub>	858.48	8/26/1987	107.31	751.17
E-1A	Ss <sub>1</sub>	858.48	12/23/1987	107.28	751.20
E-1A	Ss <sub>1</sub>	858.48	3/30/1988	105.07	753.41
E-1A	Ss <sub>1</sub>	858.48	6/29/1988	109.27	749.21
E-1A	Ss <sub>1</sub>	858.48	9/28/1988	108.56	749.92
E-1A	Ss <sub>1</sub>	858.48	1/5/1989	107.00	751.48
E-1A	Ss <sub>1</sub>	858.48	1/19/1990	102.53	755.95
E-1A	Ss <sub>1</sub>	858.48	4/4/1990	101.64	756.84
E-1A	Ss <sub>1</sub>	858.48	8/27/1990	99.66	758.82
E-1A	Ss <sub>1</sub>	858.48	11/1/1990	99.02	759.46
E-1A	Ss <sub>1</sub>	858.48	1/24/1991	98.51	759.97
E-1A	Ss <sub>1</sub>	858.48	4/17/1991	98.76	759.72
E-1A	Ss <sub>1</sub>	858.48	7/17/1991	98.18	760.30
E-1A	Ss <sub>1</sub>	858.48	10/23/1991	97.52	760.96
E-1A	Ss <sub>1</sub>	858.48	1/20/1992	97.05	761.43
E-1A	Ss <sub>1</sub>	858.48	4/13/1992	96.85	761.63
E-1A	Ss <sub>1</sub>	858.48	7/16/1992	96.74	761.74
E-1A	Ss <sub>1</sub>	858.48	3/9/1993	96.03	762.45
E-1A	Ss <sub>1</sub>	858.48	5/23/1994	94.70	763.78
E-1A	Ss <sub>1</sub>	858.48	8/18/1994	94.41	764.07
E-1A	Ss <sub>1</sub>	858.48	11/21/1994	94.12	764.36
E-1A	Ss <sub>1</sub>	858.48	2/22/1995	94.23	764.25
E-1A	Ss <sub>1</sub>	858.48	5/22/1995	94.06	764.42
E-1A	Ss <sub>1</sub>	858.48	8/28/1995	94.88	763.60
E-1A	Ss <sub>1</sub>	858.48	12/5/1995	93.72	764.76
E-1A	Ss <sub>1</sub>	858.48	3/20/1996	93.64	764.84
E-1A	Ss <sub>1</sub>	858.48	6/24/1996	NM <sup>2</sup>	NM <sup>2</sup>
E-1A	Ss <sub>1</sub>	858.48	9/24/1996	93.35	765.13
E-1A	Ss <sub>1</sub>	858.48	12/12/1996	93.55	764.93
E-1A	Ss <sub>1</sub>	858.48	3/17/1997	93.43	765.05
E-1A	Ss <sub>1</sub>	858.48	5/13/1997	93.65	764.83
E-1A	Ss <sub>1</sub>	858.48	10/13/1997	93.41	765.07
E-1A	Ss <sub>1</sub>	858.48	12/29/1997	93.33	765.15
E-1A	Ss <sub>1</sub>	858.48	3/31/1998	93.32	765.16

## ATTACHMENT A

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-1A	Ss <sub>1</sub>	858.48	4/30/1998	93.23	765.25
E-1A	Ss <sub>1</sub>	858.48	11/30/1998	93.04	765.44
E-1A	Ss <sub>1</sub>	858.48	12/28/1998	93.06	765.42
E-1A	Ss <sub>1</sub>	858.48	3/24/1999	93.03	765.45
E-1A	Ss <sub>1</sub>	858.48	5/19/1999	93.05	765.43
E-1A	Ss <sub>1</sub>	858.48	9/8/1999	97.90	760.58
E-1A	Ss <sub>1</sub>	858.48	12/28/1999	92.85	765.63
E-1A	Ss <sub>1</sub>	858.48	3/16/2000	93.60	764.88
E-1A	Ss <sub>1</sub>	858.48	6/27/2000	92.82	765.66
E-1A	Ss <sub>1</sub>	858.48	9/27/2000	92.72	765.76
E-1A	Ss <sub>1</sub>	858.48	12/5/2000	NM <sup>2</sup>	NM <sup>2</sup>
E-1A	Ss <sub>1</sub>	858.48	3/21/2001	92.98	765.50
E-1A	Ss <sub>1</sub>	858.48	6/20/2001	97.64	760.84
E-1A	Ss <sub>1</sub>	858.48	9/20/2001	97.86	760.62
E-1A	Ss <sub>1</sub>	858.48	12/6/2001	92.70	765.78
E-1A	Ss <sub>1</sub>	858.48	3/11/2002	92.80	765.68
E-1A	Ss <sub>1</sub>	858.48	5/2/2002	92.80	765.68
E-1A	Ss <sub>1</sub>	858.48	9/23/2002	92.62	765.86
E-1A	Ss <sub>1</sub>	858.48	12/11/2002	92.60	765.88
E-1A	Ss <sub>1</sub>	858.48	1/20/2003	92.75	765.73
E-1A	Ss <sub>1</sub>	858.48	4/14/2003	92.70	765.78
E-1A	Ss <sub>1</sub>	858.48	8/25/2003	92.65	765.83
E-1A	Ss <sub>1</sub>	858.48	10/22/2003	92.60	765.88
E-1A	Ss <sub>1</sub>	858.48	1/20/2004	92.68	765.80
E-1A	Ss <sub>1</sub>	858.48	4/1/2004	92.65	765.83
E-1A	Ss <sub>1</sub>	858.48	7/1/2004	92.80	765.68
E-1A	Ss <sub>1</sub>	858.48	10/13/2004	92.70	765.78
E-1A	Ss <sub>1</sub>	858.48	3/8/2005	92.73	765.75
E-1A	Ss <sub>1</sub>	858.48	5/3/2005	92.02	766.46
E-1A	Ss <sub>1</sub>	858.48	8/23/2005	92.64	765.84
E-1A	Ss <sub>1</sub>	858.48	11/1/2005	Dry	NA
E-1A	Ss <sub>1</sub>	858.48	1/24/2006	NA	NA
E-1A	Ss <sub>1</sub>	858.48	5/9/2006	NA	NA
E-1A	Ss <sub>1</sub>	858.48	8/1/2006	NA	NA
E-1A	Ss <sub>1</sub>	858.48	10/10/2006	NA	NA
E-1A	Ss <sub>1</sub>	858.48	2/5/2007	NA	NA
E-2	Ss <sub>1</sub>	857.71	6/12/1986	107.02	750.69
E-2	Ss <sub>1</sub>	857.71	7/14/1986	105.63	752.08
E-2	Ss <sub>1</sub>	857.71	8/26/1987	105.82	751.89
E-2	Ss <sub>1</sub>	857.71	12/23/1987	105.81	751.90
E-2	Ss <sub>1</sub>	857.71	3/30/1988	106.30	751.41
E-2	Ss <sub>1</sub>	857.71	6/29/1988	107.24	750.47
E-2	Ss <sub>1</sub>	857.71	9/28/1988	108.46	749.25
E-2	Ss <sub>1</sub>	857.71	1/5/1989	108.47	749.24
E-2	Ss <sub>1</sub>	857.71	6/28/1989	109.46	748.25
E-2	Ss <sub>1</sub>	857.71	1/19/1990	110.72	746.99
E-2	Ss <sub>1</sub>	857.71	4/4/1990	111.01	746.70

**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-2	Ss <sub>1</sub>	857.71	8/27/1990	111.82	745.89
E-2	Ss <sub>1</sub>	857.71	11/1/1990	112.17	745.54
E-2	Ss <sub>1</sub>	857.71	1/24/1991	112.39	745.32
E-2	Ss <sub>1</sub>	857.71	4/17/1991	112.50	745.21
E-2	Ss <sub>1</sub>	857.71	7/17/1991	112.79	744.92
E-2	Ss <sub>1</sub>	857.71	10/23/1991	112.94	744.77
E-2	Ss <sub>1</sub>	857.71	1/20/1992	113.50	744.21
E-2	Ss <sub>1</sub>	857.71	4/13/1992	112.96	744.75
E-2	Ss <sub>1</sub>	857.71	7/16/1992	107.29	750.42
E-2	Ss <sub>1</sub>	857.71	3/9/1993	105.92	751.79
E-2	Ss <sub>1</sub>	857.71	5/23/1994	105.65	752.06
E-2	Ss <sub>1</sub>	857.71	8/18/1994	107.52	750.19
E-2	Ss <sub>1</sub>	857.71	11/21/1994	108.64	749.07
E-2	Ss <sub>1</sub>	857.71	2/22/1995	108.70	749.01
E-2	Ss <sub>1</sub>	857.71	5/22/1995	108.02	749.69
E-2	Ss <sub>1</sub>	857.71	8/28/1995	108.05	749.66
E-2	Ss <sub>1</sub>	857.71	12/5/1995	108.34	749.37
E-2	Ss <sub>1</sub>	857.71	3/20/1996	108.51	749.20
E-2	Ss <sub>1</sub>	857.71	6/24/1996	108.69	749.02
E-2	Ss <sub>1</sub>	857.71	9/24/1996	109.58	748.13
E-2	Ss <sub>1</sub>	857.71	12/12/1996	110.07	747.64
E-2	Ss <sub>1</sub>	857.71	3/17/1997	105.61	752.10
E-2	Ss <sub>1</sub>	857.71	5/13/1997	103.60	754.11
E-2	Ss <sub>1</sub>	857.71	10/13/1997	105.14	752.57
E-2	Ss <sub>1</sub>	857.71	12/29/1997	106.13	751.58
E-2	Ss <sub>1</sub>	857.71	3/31/1998	97.65	760.06
E-2	Ss <sub>1</sub>	857.71	4/30/1998	96.90	760.81
E-2	Ss <sub>1</sub>	857.71	11/1/1998	94.59	763.12
E-2	Ss <sub>1</sub>	857.71	12/28/1998	95.28	762.43
E-2	Ss <sub>1</sub>	857.71	3/24/1999	95.30	762.41
E-2	Ss <sub>1</sub>	857.71	5/19/1999	95.99	761.72
E-2	Ss <sub>1</sub>	857.71	9/8/1999	96.50	761.21
E-2	Ss <sub>1</sub>	857.71	12/28/1999	98.37	759.34
E-2	Ss <sub>1</sub>	857.71	3/16/2000	98.24	759.47
E-2	Ss <sub>1</sub>	857.71	6/27/2000	98.63	759.08
E-2	Ss <sub>1</sub>	857.71	9/27/2000	NM <sup>3</sup>	NM <sup>3</sup>
E-2	Ss <sub>1</sub>	857.71	12/5/2000	100.77	756.94
E-2	Ss <sub>1</sub>	857.71	3/21/2001	100.93	756.78
E-2	Ss <sub>1</sub>	857.71	6/20/2001	97.14	760.57
E-2	Ss <sub>1</sub>	857.71	9/20/2001	96.86	760.85
E-2	Ss <sub>1</sub>	857.71	12/6/2001	97.70	760.01
E-2	Ss <sub>1</sub>	857.71	3/11/2002	97.40	760.31
E-2	Ss <sub>1</sub>	857.71	5/2/2002	97.15	760.56
E-2	Ss <sub>1</sub>	857.71	9/23/2002	97.91	759.80
E-2	Ss <sub>1</sub>	857.71	12/11/2002	99.05	758.66
E-2	Ss <sub>1</sub>	857.71	1/20/2003	99.10	758.61

**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-2	Ss <sub>1</sub>	857.71	4/14/2003	99.00	758.71
E-2	Ss <sub>1</sub>	857.71	8/25/2003	100.50	757.21
E-2	Ss <sub>1</sub>	857.71	10/22/2003	100.80	756.91
E-2	Ss <sub>1</sub>	857.71	1/20/2004	101.35	756.36
E-2	Ss <sub>1</sub>	857.71	4/1/2004	101.54	756.17
E-2	Ss <sub>1</sub>	857.71	7/1/2004	102.15	755.56
E-2	Ss <sub>1</sub>	857.71	10/13/2004	102.98	754.73
E-2	Ss <sub>1</sub>	857.71	3/8/2005	103.71	754.00
E-2	Ss <sub>1</sub>	857.71	5/3/2005	100.47	757.24
E-2	Ss <sub>1</sub>	857.71	8/23/2005	98.50	759.21
E-2	Ss <sub>1</sub>	857.71	11/1/2005	98.59	759.12
E-2	Ss <sub>1</sub>	857.71	1/24/2006	98.07	759.64
E-2 <sup>3</sup>	Ss <sub>1</sub>	860.83	5/9/2006	97.66	763.17
E-2	Ss <sub>1</sub>	860.83	8/1/2006	97.07	763.76
E-2	Ss <sub>1</sub>	860.83	10/10/2006	96.66	764.17
E-2	Ss <sub>1</sub>	860.83	2/5/2007	90.46	770.37
<hr/>					
E-3	Ss <sub>1</sub>	848.77	6/12/1986	84.74	764.03
E-3	Ss <sub>1</sub>	848.77	7/14/1986	83.82	764.95
E-3	Ss <sub>1</sub>	848.77	8/26/1987	85.00	763.77
E-3	Ss <sub>1</sub>	848.77	12/23/1987	84.97	763.80
E-3	Ss <sub>1</sub>	848.77	3/30/1988	84.47	764.30
E-3	Ss <sub>1</sub>	848.77	6/29/1988	84.92	763.85
E-3	Ss <sub>1</sub>	848.77	8/11/1988	84.87	763.90
E-3	Ss <sub>1</sub>	848.77	9/28/1988	85.25	763.52
E-3	Ss <sub>1</sub>	848.77	1/5/1989	85.33	763.44
E-3	Ss <sub>1</sub>	848.77	6/28/1989	85.57	763.20
E-3	Ss <sub>1</sub>	848.77	1/19/1990	86.00	762.77
E-3	Ss <sub>1</sub>	848.77	4/4/1990	85.94	762.83
E-3	Ss <sub>1</sub>	848.77	8/27/1990	86.51	762.26
E-3	Ss <sub>1</sub>	848.77	11/1/1990	86.62	762.15
E-3	Ss <sub>1</sub>	848.77	1/24/1991	86.87	761.90
E-3	Ss <sub>1</sub>	848.77	4/17/1991	86.87	761.90
E-3	Ss <sub>1</sub>	848.77	7/17/1991	87.09	761.68
E-3	Ss <sub>1</sub>	848.77	10/23/1991	87.08	761.69
E-3	Ss <sub>1</sub>	848.77	1/20/1992	87.37	761.40
E-3	Ss <sub>1</sub>	848.77	4/13/1992	86.83	761.94
E-3	Ss <sub>1</sub>	848.77	7/16/1992	83.13	765.64
E-3	Ss <sub>1</sub>	848.77	3/9/1993	82.40	766.37
E-3	Ss <sub>1</sub>	848.77	5/23/1994	83.30	765.47
E-3	Ss <sub>1</sub>	848.77	8/18/1994	83.47	765.30
E-3	Ss <sub>1</sub>	848.77	11/21/1994	84.07	764.70
E-3	Ss <sub>1</sub>	848.77	2/22/1995	83.96	764.81
E-3	Ss <sub>1</sub>	848.77	5/22/1995	84.08	764.69
E-3	Ss <sub>1</sub>	848.77	8/28/1995	85.25	763.52
E-3	Ss <sub>1</sub>	848.77	12/5/1995	84.60	764.17
E-3	Ss <sub>1</sub>	848.77	3/20/1996	84.70	764.07

## ATTACHMENT A

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-3	Ss <sub>1</sub>	848.77	6/24/1996	84.89	763.88
E-3	Ss <sub>1</sub>	848.77	9/24/1996	85.07	763.70
E-3	Ss <sub>1</sub>	848.77	12/12/1996	85.35	763.42
E-3	Ss <sub>1</sub>	848.77	3/17/1997	85.63	763.14
E-3	Ss <sub>1</sub>	848.77	5/13/1997	85.57	763.20
E-3	Ss <sub>1</sub>	848.77	10/13/1997	86.03	762.74
E-3	Ss <sub>1</sub>	848.77	12/29/1997	86.15	762.62
E-3	Ss <sub>1</sub>	848.77	3/31/1998	83.78	764.99
E-3	Ss <sub>1</sub>	848.77	4/30/1998	84.96	763.81
E-3	Ss <sub>1</sub>	848.77	11/30/1998	85.80	762.97
E-3	Ss <sub>1</sub>	848.77	12/28/1998	86.47	762.30
E-3	Ss <sub>1</sub>	848.77	3/24/1999	85.93	762.84
E-3	Ss <sub>1</sub>	848.77	5/19/1999	86.11	762.66
E-3	Ss <sub>1</sub>	848.77	9/8/1999	86.10	762.67
E-3	Ss <sub>1</sub>	848.77	12/28/1999	86.50	762.27
E-3	Ss <sub>1</sub>	848.77	3/16/2000	86.40	762.37
E-3	Ss <sub>1</sub>	848.77	6/27/2000	86.42	762.35
E-3	Ss <sub>1</sub>	848.77	9/27/2000	86.50	762.27
E-3	Ss <sub>1</sub>	848.77	12/5/2000	86.91	761.86
E-3	Ss <sub>1</sub>	848.77	3/21/2001	86.73	762.04
E-3	Ss <sub>1</sub>	848.77	6/20/2001	86.76	762.01
E-3	Ss <sub>1</sub>	848.77	9/20/2001	86.81	761.96
E-3	Ss <sub>1</sub>	848.77	12/6/2001	87.40	761.37
E-3	Ss <sub>1</sub>	848.77	3/11/2002	88.00	760.77
E-3	Ss <sub>1</sub>	848.77	5/2/2002	87.30	761.47
E-3	Ss <sub>1</sub>	848.77	9/23/2002	87.15	761.62
E-3	Ss <sub>1</sub>	848.77	12/11/2002	87.70	761.07
E-3	Ss <sub>1</sub>	848.77	1/20/2003	87.81	760.96
E-3	Ss <sub>1</sub>	848.77	4/14/2003	87.43	761.34
E-3	Ss <sub>1</sub>	848.77	8/25/2003	87.65	761.12
E-3	Ss <sub>1</sub>	848.77	10/22/2003	87.93	760.84
E-3	Ss <sub>1</sub>	848.77	1/20/2004	87.92	760.85
E-3	Ss <sub>1</sub>	848.77	4/1/2004	88.05	760.72
E-3	Ss <sub>1</sub>	848.77	7/1/2004	88.10	760.67
E-3	Ss <sub>1</sub>	848.77	10/13/2004	88.30	760.47
E-3	Ss <sub>1</sub>	848.77	3/8/2005	88.69	760.08
E-3	Ss <sub>1</sub>	848.77	5/3/2005	88.87	759.90
E-3	Ss <sub>1</sub>	848.77	8/23/2005	88.59	760.18
E-3	Ss <sub>1</sub>	848.77	11/1/2005	89.03	759.74
E-3	Ss <sub>1</sub>	848.77	1/24/2006	88.96	759.81
E-3 <sup>3</sup>	Ss <sub>1</sub>	851.87	5/9/2006	88.87	763.00
E-3	Ss <sub>1</sub>	851.87	8/1/2006	88.87	763.00
E-3	Ss <sub>1</sub>	851.87	10/10/2006	89.00	762.87
E-3	Ss <sub>1</sub>	851.87	2/5/2007	89.28	762.59
E-6	Ss <sub>1</sub>	894.43	8/26/1987	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/23/1987	Dry	Dry

**ATTACHMENT A**

**Table 3  
Water Level Elevations  
Active Monitoring Wells  
Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-6	Ss <sub>1</sub>	894.43	3/30/1988	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	6/29/1988	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	9/28/1988	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	1/5/1989	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	6/28/1989	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	1/19/1990	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	4/4/1990	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	8/27/1990	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	11/1/1990	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	1/24/1991	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	4/17/1991	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	7/17/1991	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	10/23/1991	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	1/20/1992	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	4/13/1992	201.25	693.18
E-6	Ss <sub>1</sub>	894.43	7/16/1992	201.41	693.02
E-6	Ss <sub>1</sub>	894.43	3/9/1993	201.41	693.02
E-6	Ss <sub>1</sub>	894.43	5/23/1994	201.22	693.21
E-6	Ss <sub>1</sub>	894.43	8/18/1994	201.20	693.23
E-6	Ss <sub>1</sub>	894.43	11/21/1994	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	2/22/1995	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	5/22/1995	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	8/28/1995	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/5/1995	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/20/1996	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	6/24/1996	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	9/24/1996	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/12/1996	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/17/1997	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	5/13/1997	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	10/13/1997	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/29/1997	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/31/1998	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	4/30/1998	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	11/30/1998	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/24/1999	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	5/19/1999	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	9/8/1999	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/28/1999	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/16/2000	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	6/27/2000	183.63	710.80
E-6	Ss <sub>1</sub>	894.43	9/27/2000	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	12/5/2000	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/21/2001	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	6/20/2001	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	9/20/2001	Dry	Dry

**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-6	Ss <sub>1</sub>	894.43	12/6/2001	Dry	Dry
E-6	Ss <sub>1</sub>	894.43	3/11/2002	179.95	714.48
E-6	Ss <sub>1</sub>	894.43	5/2/2002	179.75	714.68
E-6	Ss <sub>1</sub>	894.43	9/23/2002	179.30	715.13
E-6	Ss <sub>1</sub>	894.43	12/11/2002	179.55	714.88
E-6	Ss <sub>1</sub>	894.43	1/20/2003	179.45	714.98
E-6	Ss <sub>1</sub>	894.43	4/124/03	179.20	715.23
E-6	Ss <sub>1</sub>	894.43	8/25/2003	179.57	714.86
E-6	Ss <sub>1</sub>	894.43	10/22/2003	179.83	714.60
E-6	Ss <sub>1</sub>	894.43	1/20/2004	180.20	714.23
E-6	Ss <sub>1</sub>	894.43	4/1/2004	180.35	714.08
E-6	Ss <sub>1</sub>	894.43	7/1/2004	180.67	713.76
E-6	Ss <sub>1</sub>	894.43	10/13/2004	181.00	713.43
E-6	Ss <sub>1</sub>	894.43	3/8/2005	181.31	713.12
E-6	Ss <sub>1</sub>	894.43	5/3/2005	181.50	712.93
E-6	Ss <sub>1</sub>	894.43	8/23/2005	181.50	712.93
E-6	Ss <sub>1</sub>	894.43	11/1/2005	182.57	711.86
E-6	Ss <sub>1</sub>	894.43	1/24/2006	182.02	712.41
E-6 <sup>3</sup>	Ss <sub>1</sub>	897.66	5/9/2006	181.94	715.72
E-6	Ss <sub>1</sub>	897.66	8/1/2006	182.17	715.49
E-6	Ss <sub>1</sub>	897.66	10/10/2006	NA	NA
E-6	Ss <sub>1</sub>	897.66	2/5/2007	NA	NA
E-7	Ss <sub>2</sub>	843.27	8/26/1987	148.41	694.86
E-7	Ss <sub>2</sub>	843.27	12/23/1987	148.37	694.90
E-7	Ss <sub>2</sub>	843.27	3/30/1988	148.30	694.97
E-7	Ss <sub>2</sub>	843.27	6/29/1988	148.84	694.43
E-7	Ss <sub>2</sub>	843.27	9/28/1988	148.92	694.35
E-7	Ss <sub>2</sub>	843.27	1/5/1989	148.50	694.77
E-7	Ss <sub>2</sub>	843.27	6/28/1989	149.23	694.04
E-7	Ss <sub>2</sub>	843.27	1/19/1990	149.11	694.16
E-7	Ss <sub>2</sub>	843.27	4/4/1990	149.39	693.88
E-7	Ss <sub>2</sub>	843.27	8/27/1990	149.78	693.49
E-7	Ss <sub>2</sub>	843.27	11/1/1990	149.66	693.61
E-7	Ss <sub>2</sub>	843.27	1/24/1991	149.77	693.50
E-7	Ss <sub>2</sub>	843.27	4/17/1991	149.73	693.54
E-7	Ss <sub>2</sub>	843.27	7/17/1991	149.91	693.36
E-7	Ss <sub>2</sub>	843.27	10/23/1991	149.94	693.33
E-7	Ss <sub>2</sub>	843.27	1/20/1992	150.08	693.19
E-7	Ss <sub>2</sub>	843.27	4/13/1992	149.95	693.32
E-7	Ss <sub>2</sub>	843.27	7/16/1992	150.05	693.22
E-7	Ss <sub>2</sub>	843.27	3/9/1993	150.10	693.17
E-7	Ss <sub>2</sub>	843.27	5/23/1994	150.20	693.07
E-7	Ss <sub>2</sub>	843.27	8/18/1994	146.42	696.85
E-7	Ss <sub>2</sub>	843.27	11/21/1994	150.51	692.76
E-7	Ss <sub>2</sub>	843.27	2/22/1995	150.22	693.05
E-7	Ss <sub>2</sub>	843.27	5/22/1995	150.21	693.06

**ATTACHMENT A**

**Table 3  
Water Level Elevations  
Active Monitoring Wells  
Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-7	Ss <sub>2</sub>	843.27	8/28/1995	150.21	693.06
E-7	Ss <sub>2</sub>	843.27	12/5/1995	152.57	690.70
E-7	Ss <sub>2</sub>	843.27	3/20/1996	150.32	692.95
E-7	Ss <sub>2</sub>	843.27	6/24/1996	150.34	692.93
E-7	Ss <sub>2</sub>	843.27	9/24/1996	149.80	693.47
E-7	Ss <sub>2</sub>	843.27	12/12/1996	150.53	692.74
E-7	Ss <sub>2</sub>	843.27	3/17/1997	150.60	692.67
E-7	Ss <sub>2</sub>	843.27	5/13/1997	150.34	692.93
E-7	Ss <sub>2</sub>	843.27	10/13/1997	150.80	692.47
E-7	Ss <sub>2</sub>	843.27	12/29/1997	150.46	692.81
E-7	Ss <sub>2</sub>	843.27	3/31/1998	150.47	692.80
E-7	Ss <sub>2</sub>	843.27	4/30/1998	150.58	692.69
E-7	Ss <sub>2</sub>	843.27	11/30/1998	150.57	692.70
E-7	Ss <sub>2</sub>	843.27	12/28/1998	150.70	692.57
E-7	Ss <sub>2</sub>	843.27	3/24/1999	150.52	692.75
E-7	Ss <sub>2</sub>	843.27	5/19/1999	150.72	692.55
E-7	Ss <sub>2</sub>	843.27	9/8/1999	150.61	692.66
E-7	Ss <sub>2</sub>	843.27	12/28/1999	150.79	692.48
E-7	Ss <sub>2</sub>	843.27	3/16/2000	150.45	692.82
E-7	Ss <sub>2</sub>	843.27	6/27/2000	149.90	693.37
E-7	Ss <sub>2</sub>	843.27	9/27/2000	151.19	692.08
E-7	Ss <sub>2</sub>	843.27	12/5/2000	150.41	692.86
E-7	Ss <sub>2</sub>	843.27	3/21/2001	151.10	692.17
E-7	Ss <sub>2</sub>	843.27	6/20/2001	151.40	691.87
E-7	Ss <sub>2</sub>	843.27	9/20/2001	151.42	691.85
E-7	Ss <sub>2</sub>	843.27	12/6/2001	151.80	691.47
E-7	Ss <sub>2</sub>	843.27	3/11/2002	150.80	692.47
E-7	Ss <sub>2</sub>	843.27	5/2/2002	150.50	692.77
E-7	Ss <sub>2</sub>	843.27	9/23/2002	150.58	692.69
E-7	Ss <sub>2</sub>	843.27	12/11/2002	150.26	693.01
E-7	Ss <sub>2</sub>	843.27	1/20/2003	150.70	692.57
E-7	Ss <sub>2</sub>	843.27	4/14/2003	150.65	692.62
E-7	Ss <sub>2</sub>	843.27	8/25/2003	150.65	692.62
E-7	Ss <sub>2</sub>	843.27	10/22/2003	150.85	692.42
E-7	Ss <sub>2</sub>	843.27	1/20/2004	150.90	692.37
E-7	Ss <sub>2</sub>	843.27	4/1/2004	150.75	692.52
E-7	Ss <sub>2</sub>	843.27	7/1/2004	151.00	692.27
E-7	Ss <sub>2</sub>	843.27	10/13/2004	151.00	692.27
E-7	Ss <sub>2</sub>	843.27	3/8/2005	151.00	692.27
E-7	Ss <sub>2</sub>	843.27	5/3/2005	151.03	692.24
E-7	Ss <sub>2</sub>	843.27	8/23/2005	150.90	692.37
E-7	Ss <sub>2</sub>	843.27	11/1/2005	151.09	692.18
E-7	Ss <sub>2</sub>	843.27	1/24/2006	150.95	692.32
E-7 <sup>3</sup>	Ss <sub>2</sub>	846.33	5/9/2006	151.01	695.32
E-7	Ss <sub>2</sub>	846.33	8/1/2006	151.00	695.33
E-7	Ss <sub>2</sub>	846.33	10/12/2006	150.90	695.43



**ATTACHMENT A**

**Table 3**  
**Water Level Elevations**  
**Active Monitoring Wells**  
**Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-7	Ss <sub>2</sub>	846.33	2/5/2007	151.13	695.20
E-9	Ss <sub>1</sub>	834.83	5/22/1995	117.53	717.30
E-9	Ss <sub>1</sub>	834.83	8/28/1995	119.93	714.90
E-9	Ss <sub>1</sub>	834.83	12/5/1995	118.08	716.75
E-9	Ss <sub>1</sub>	834.83	3/20/1996	117.90	716.93
E-9	Ss <sub>1</sub>	834.83	6/24/1996	117.90	716.93
E-9	Ss <sub>1</sub>	834.83	9/24/1996	117.81	717.02
E-9	Ss <sub>1</sub>	834.83	12/12/1996	117.91	716.92
E-9	Ss <sub>1</sub>	834.83	3/17/1997	118.01	716.82
E-9	Ss <sub>1</sub>	834.83	5/13/1997	117.73	717.1
E-9	Ss <sub>1</sub>	834.83	10/13/1997	118.05	716.78
E-9	Ss <sub>1</sub>	834.83	12/29/1997	117.99	716.84
E-9	Ss <sub>1</sub>	834.83	3/31/1998	117.69	717.14
E-9	Ss <sub>1</sub>	834.83	4/30/1998	117.87	716.96
E-9	Ss <sub>1</sub>	834.83	11/30/1998	117.84	716.99
E-9	Ss <sub>1</sub>	834.83	12/28/1998	118.21	716.62
E-9	Ss <sub>1</sub>	834.83	3/24/1999	117.70	717.13
E-9	Ss <sub>1</sub>	834.83	5/19/1999	117.86	716.97
E-9	Ss <sub>1</sub>	834.83	9/8/1999	117.72	717.11
E-9	Ss <sub>1</sub>	834.83	12/28/1999	118.15	716.68
E-9	Ss <sub>1</sub>	834.83	3/16/2000	117.90	716.93
E-9	Ss <sub>1</sub>	834.83	6/27/2000	117.66	717.17
E-9	Ss <sub>1</sub>	834.83	9/27/2000	117.76	717.07
E-9	Ss <sub>1</sub>	834.83	12/5/2000	117.97	716.86
E-9	Ss <sub>1</sub>	834.83	3/21/2001	117.68	717.15
E-9	Ss <sub>1</sub>	834.83	6/20/2001	117.69	717.14
E-9	Ss <sub>1</sub>	834.83	9/20/2001	117.69	717.14
E-9	Ss <sub>1</sub>	834.83	12/6/2001	118.60	716.23
E-9	Ss <sub>1</sub>	834.83	3/11/2002	117.98	716.85
E-9	Ss <sub>1</sub>	834.83	5/2/2002	117.75	717.08
E-9	Ss <sub>1</sub>	834.83	9/23/2002	116.63	718.20
E-9	Ss <sub>1</sub>	834.83	12/11/2002	118.10	716.73
E-9	Ss <sub>1</sub>	834.83	1/20/2003	118.10	716.73
E-9	Ss <sub>1</sub>	834.83	4/14/2003	117.78	717.05
E-9	Ss <sub>1</sub>	834.83	8/25/2003	117.85	716.98
E-9	Ss <sub>1</sub>	834.83	10/22/2003	118.00	716.83
E-9	Ss <sub>1</sub>	834.83	1/20/2004	117.95	716.88
E-9	Ss <sub>1</sub>	834.83	4/1/2004	117.90	716.93
E-9	Ss <sub>1</sub>	834.83	7/1/2004	118.00	716.83
E-9	Ss <sub>1</sub>	834.83	10/13/2004	117.95	716.88
E-9	Ss <sub>1</sub>	834.83	3/8/2005	118.20	716.63
E-9	Ss <sub>1</sub>	834.83	5/3/2005	117.99	716.84
E-9	Ss <sub>1</sub>	834.83	8/23/2005	117.79	717.04
E-9	Ss <sub>1</sub>	834.83	11/1/2005	118.07	716.76
E-9	Ss <sub>1</sub>	834.83	1/24/2006	118.06	716.77
E-9 <sup>3</sup>	Ss <sub>1</sub>	838.02	5/9/2006	117.91	720.11

**ATTACHMENT A**

**Table 3  
Water Level Elevations  
Active Monitoring Wells  
Blue Hills Disposal Facility**

Well	Geologic Unit Monitored	Top of Casing Elev. (ft., MSL) <sup>1</sup>	Date	Depth to Water	GW Elev. (ft., MSL) <sup>1</sup>
E-9	Ss <sub>1</sub>	838.02	8/1/2006	117.98	720.04
E-9	Ss <sub>1</sub>	838.02	10/10/2006	117.94	720.08
E-9	Ss <sub>1</sub>	838.02	2/5/2007	118.12	719.90
<b>E-10</b>	Ss <sub>2</sub>	837.79	7/1/2004	174.22	663.57
E-10	Ss <sub>2</sub>	837.79	10/13/2004	174.80	662.99
E-10	Ss <sub>2</sub>	837.79	3/8/2005	175.03	662.76
E-10	Ss <sub>2</sub>	837.79	5/8/2005	174.93	662.86
E-10	Ss <sub>2</sub>	837.79	8/23/2005	174.83	662.96
E-10	Ss <sub>2</sub>	837.79	11/1/2005	175.07	662.72
E-10	Ss <sub>2</sub>	837.79	1/24/2006	174.97	662.82
E-10 <sup>3</sup>	Ss <sub>2</sub>	841.04	5/9/2006	174.94	666.10
E-10	Ss <sub>2</sub>	841.04	8/1/2006	175.00	666.04
E-10	Ss <sub>2</sub>	841.04	10/10/2006	175.03	666.01
E-10	Ss <sub>2</sub>	841.04	2/5/2007	175.13	665.91

Notes:

<sup>1</sup> ft., MSL = feet measured relative to mean sea level

<sup>2</sup> NM = Groundwater level was not measured due to naturally occurring oil in well.

<sup>3</sup> Because of the creation of the State Geotracker database, the wells were resurveyed. The revised surveyed top of casing elevation will be used from this point forward to determine groundwater elevation.

# ATTACHMENT A

**Table 4**  
**Corrective Action Program Monitoring Parameters**  
**Blue Hills Disposal Facility**

Constituent	Units	USEPA Method	Sampling and Analysis Interval
<b>FIELD PARAMETERS (SEMIANNUALLY ALL WELLS)</b>			
Groundwater Elevation	Feet	Field Analysis	Semiannually
pH	pH Units	Field Analysis	Semiannually
Electrical Conductivity (EC)	mS/cm	Field Analysis	Semiannually
Temperature	Degrees °C	Field Analysis	Semiannually
Dissolved Oxygen (DO)	mg/L	Field Analysis	Semiannually
Oxidation Reduction Potential (ORP)	mV	Field Analysis	Semiannually
Turbidity	NTU	Field Analysis	Semiannually
<b>MONITORING PARAMETERS (SEMIANNUALLY ALL WELLS)</b>			
Total Dissolved Solids (TDS)	mg/L	160.1	Semiannually
Total Organic Carbon (TOC)	mg/L	415.1	Semiannually
<b>Chlorophenoxy Herbicides (Semiannually All Wells)</b>			
Dalapon	µg/L	8151A	Semiannually
Dicamba	µg/L	8151A	Semiannually
Dichloroprop	µg/L	8151A	Semiannually
2,4-D (2,4-Dichlorophenoxyacetic acid)	µg/L	8151A	Semiannually
2,4-DB (2,4-Dichlorophenoxybutyric acid)	µg/L	8151A	Semiannually
Dinoseb (DNBP: 2-sec-Butyl-4,6-dinitrophenol)	µg/L	8151A	Semiannually
Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)	µg/L	8151A	Semiannually
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	µg/L	8151A	Semiannually
MCPA	µg/L	8151A	Semiannually
MCPP	µg/L	8151A	Semiannually
<b>Volatile Organic Compounds, Extended List (Semiannually All Wells)</b>			
Acetone	µg/L	8260B	Semiannually
Acetonitrile (Methyl cyanide)	µg/L	8260B	Semiannually
Acrolein	µg/L	8260B	Semiannually
Acrylonitrile	µg/L	8260B	Semiannually
Allyl chloride (3-chloropropene)	µg/L	8260B	Semiannually
Benzene	µg/L	8260B	Semiannually
Bromochloromethane (Chlorobromomethane)	µg/L	8260B	Semiannually
Bromodichloromethane (Dibromochloromethane)	µg/L	8260B	Semiannually
Bromoform (Tribromomethane)	µg/L	8260B	Semiannually
n-Butylbenzene	µg/L	8260B	Semiannually
Carbon disulfide	µg/L	8260B	Semiannually
Carbon tetrachloride	µg/L	8260B	Semiannually
Chlorobenzene	µg/L	8260B	Semiannually
Chloroethane (Ethyl chloride)	µg/L	8260B	Semiannually
Chloroform (Trichloromethane)	µg/L	8260B	Semiannually
Chloroprene	µg/L	8260B	Semiannually
Dibromochloromethane (Chlorodibromomethane)	µg/L	8260B	Semiannually
1,2-Dibromo-3-Chloropropane (DBCP)	µg/L	8260B	Semiannually
1,2-Dibromoethane (Ethylene dibromide: EDB)	µg/L	8260B	Semiannually
o-Dichlorobenzene (1,2-Dichlorobenzene)	µg/L	8260B	Semiannually
m-Dichlorobenzene (1,3-Dichlorobenzene)	µg/L	8260B	Semiannually
p-Dichlorobenzene (1,4-Dichlorobenzene)	µg/L	8260B	Semiannually
trans-1,4-Dichloro-2-butene	µg/L	8260B	Semiannually
Dichlorodifluoromethane (CFC 12)	µg/L	8260B	Semiannually
1,1-Dichloroethane (Ethylidene chloride)	µg/L	8260B	Semiannually
1,2-Dichloroethane (Ethylene dichloride)	µg/L	8260B	Semiannually
1,1-Dichloroethylene (1,1-Dichloroethene; Vinylidene chloride)	µg/L	8260B	Semiannually
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene)	µg/L	8260B	Semiannually
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)	µg/L	8260B	Semiannually
1,2-Dichloropropane (Propylene dichloride)	µg/L	8260B	Semiannually
1,3-Dichloropropane (Trimethylene dichloride)	µg/L	8260B	Semiannually
2,2-Dichloropropane (Isopropylidene chloride)	µg/L	8260B	Semiannually
1,1-Dichloropropene	µg/L	8260B	Semiannually
cis-1,3-Dichloropropene	µg/L	8260B	Semiannually
trans-1,3-Dichloropropene	µg/L	8260B	Semiannually
1,4-Dioxane	µg/L	8260B	5 Years
Ethylbenzene	µg/L	8260B	Semiannually
Ethyl methacrylate	µg/L	8260B	Semiannually

# ATTACHMENT A

**Table 4**  
**Corrective Action Program Monitoring Parameters**  
**Blue Hills Disposal Facility**

Constituent	Units	USEPA Method	Sampling and Analysis Interval
Hexachlorobutadiene	µg/L	8260B	Semiannually
2-Hexanone (Methyl butyl ketone)	µg/L	8260B	Semiannually
Isobutyl alcohol	µg/L	8260B	Semiannually
Methacrylonitrile	µg/L	8260B	Semiannually
Methyl bromide (Bromomethane)	µg/L	8260B	Semiannually
Methyl chloride (Chloromethane)	µg/L	8260B	Semiannually
Methyl ethyl ketone (MEK; 2-Butanone)	µg/L	8260B	Semiannually
Methyl iodide (Iodomethane)	µg/L	8260B	Semiannually
Methyl methacrylate	µg/L	8260B	Semiannually
4-Methyl-2-pentanone (Methyl isobutyl ketone)	µg/L	8260B	Semiannually
Methylene bromide (Dibromomethane)	µg/L	8260B	Semiannually
Methylene chloride (Dichloromethane)	µg/L	8260B	Semiannually
Naphthalene	µg/L	8260B	Semiannually
Propionitrile (Ethyl cyanide)	µg/L	8260B	Semiannually
Styrene	µg/L	8260B	Semiannually
1,1,1,2-Tetrachloroethane	µg/L	8260B	Semiannually
1,1,2,2-Tetrachloroethane	µg/L	8260B	Semiannually
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)	µg/L	8260B	Semiannually
Toluene (1,2,4-Trichlorobenzene)	µg/L	8260B	Semiannually
1,1,1-Trichloroethane (Methylchloroform; TCA)	µg/L	8260B	Semiannually
1,1,2-Trichloroethane	µg/L	8260B	Semiannually
Trichloroethylene (Trichloroethene; TCE)	µg/L	8260B	Semiannually
Trichlorofluoromethane (CFC-11)	µg/L	8260B	Semiannually
1,2,3-Trichloropropane	µg/L	8260B	Semiannually
Vinyl acetate	µg/L	8260B	Semiannually
Vinyl chloride (Chloroethene)	µg/L	8260B	Semiannually
Xylene (Total)	µg/L	8260B	Semiannually
<b>MONITORING PARAMETERS - ANNUALLY ALL WELLS</b>			
Chloride	mg/L	300.0	Annually
Nitrate as Nitrogen	mg/L	353.2	Annually
<b>Standard Minerals</b>			
Calcium	mg/L	200.7	Annually
Magnesium	mg/L	200.7	Annually
Sodium	mg/L	200.7	Annually
Potassium (K)	mg/L	200.7	Annually
Sulfate	mg/L	300	Annually
<b>CONSTITUENTS OF CONCERN (EVERY 5 YEARS ALL WELLS IN ADDITION TO SEMIANNUAL AND ANNUAL CONSTITUENTS)</b>			
<b>Metals (Every 5 Years All Wells)</b>			
Arsenic (total)	mg/L	200.7	5 Years
Copper (total)	mg/L	200.7	5 Years
Lead (total)	mg/L	200.7	5 Years
Mercury (total)	mg/L	200.7	5 Years
Zinc (total)	mg/L	200.7	5 Years
<b>Appendix IX Metals and Minerals (Every 5 Years All Wells)</b>			
Antimony (total)	mg/L	6010	5 Years
Barium (total)	mg/L	6010	5 Years
Beryllium (total)	mg/L	6010	5 Years
Cadmium (total)	mg/L	6010	5 Years
Chromium (total)	mg/L	6010	5 Years
Cobalt (total)	mg/L	6010	5 Years
Cyanide (total)	mg/L	6010	5 Years
Nickel (total)	mg/L	7520	5 Years
Selenium (total)	mg/L	7741	5 Years
Silver (total)	mg/L	6010	5 Years
Sulfide	mg/L	200.7	5 Years
Thallium (total)	mg/L	7841	5 Years
Tin (total)	mg/L	6010	5 Years
Vanadium (total)	mg/L	6010	5 Years

# ATTACHMENT A

**Table 4**  
**Corrective Action Program Monitoring Parameters**  
**Blue Hills Disposal Facility**

Constituent	Units	USEPA Method	Sampling and Analysis Interval
<b>Organo-Chlorine Pesticides (Every 5 Years All Wells)</b>			
alpha-BHC	µg/L	8081/8080	5 Years
beta-BHC	µg/L	8081/8080	5 Years
delta-BHC	µg/L	8081/8080	5 Years
gamma-BHC (Lindane)	µg/L	8081/8080	5 Years
Aldrin	µg/L	8081/8080	5 Years
Chlordane (Technical)	µg/L	8081/8080	5 Years
4,4'-DDD	µg/L	8081/8080	5 Years
4,4'-DDE	µg/L	8081/8080	5 Years
4,4'-DDT	µg/L	8081/8080	5 Years
Dieldrin	µg/L	8081/8080	5 Years
Endosulfan I	µg/L	8081/8080	5 Years
Endosulfan II	µg/L	8081/8080	5 Years
Endosulfan sulfate	µg/L	8081/8080	5 Years
Endrin	µg/L	8081/8080	5 Years
Endrin aldehyde	µg/L	8081/8080	5 Years
Heptachlor	µg/L	8081/8080	5 Years
Heptachlor epoxide	µg/L	8081/8080	5 Years
Methoxychlor	µg/L	8081/8080	5 Years
Toxaphene	µg/L	8081/8080	5 Years
<b>Polychlorinated Biphenyls (Every 5 Years All Wells)</b>			
Aroclor 1016	µg/L	8082/8080	5 Years
Aroclor 1221	µg/L	8082/8080	5 Years
Aroclor 1232	µg/L	8082/8080	5 Years
Aroclor 1242	µg/L	8082/8080	5 Years
Aroclor 1248	µg/L	8082/8080	5 Years
Aroclor 1254	µg/L	8082/8080	5 Years
Aroclor 1260	µg/L	8082/8080	5 Years
<b>Organo-Phosphorus Compounds (Every 5 Years All Wells)</b>			
0,0-Diethyl 0-2-pyrazinyl phosphorothioate	µg/L	8141	5 Years
Azinphos methyl	µg/L	8141	5 Years
Bolstar	µg/L	8141	5 Years
Chlorpyrifos	µg/L	8141	5 Years
Coumaphos	µg/L	8141	5 Years
Demeton-O,S	µg/L	8141	5 Years
Diazinon	µg/L	8141	5 Years
Dichlorvos	µg/L	8141	5 Years
Dimethoate	µg/L	8141	5 Years
Disulfoton	µg/L	8141	5 Years
Ethoprop	µg/L	8141	5 Years
Fensulfothion	µg/L	8141	5 Years
Fenthion	µg/L	8141	5 Years
Malathion	µg/L	8141	5 Years
Merphos	µg/L	8141	5 Years
Methyl parathion	µg/L	8141	5 Years
Mevinphos	µg/L	8141	5 Years
Naled	µg/L	8141	5 Years
Parathion	µg/L	8141	5 Years
Phorate	µg/L	8141	5 Years
Ronnel	µg/L	8141	5 Years
Stirophos	µg/L	8141	5 Years
Tokuthion	µg/L	8141	5 Years
Trichloronate	µg/L	8141	5 Years
<b>Appendix IX Dioxins and Furans (Every 5 Years All Wells)</b>			
	ng/L	8280A	5 Years
<b>Appendix IX Phenols (Every 5 Years All Wells)</b>			
	µg/L	420.2	5 Years
<b>Appendix IX Base Neutral and Acid Extractables (Every 5 Years All Wells)</b>			
Acenaphthene	µg/L	8270C	5 Years
Acenaphthylene	µg/L	8270C	5 Years
Acetophenone	µg/L	8270C	5 Years

# ATTACHMENT A

Table 4  
Corrective Action Program Monitoring Parameters  
Blue Hills Disposal Facility

Constituent	Units	USEPA Method	Sampling and Analysis Interval
2-Acetylaminoflourene	µg/L	8270C	5 Years
4-Aminobiphenyl	µg/L	8270C	5 Years
Aniline	µg/L	8270C	5 Years
Anthracene	µg/L	8270C	5 Years
Benzo(a)anthracene	µg/L	8270C	5 Years
Benzo(a)pyrene	µg/L	8270C	5 Years
Benzo(b)fluoranthene	µg/L	8270C	5 Years
Benzo(g,h,i)perylene	µg/L	8270C	5 Years
Benzo(k)fluoranthene	µg/L	8270C	5 Years
Benzyl alcohol	µg/L	8270C	5 Years
bis(2-chloroethoxy) methane	µg/L	8270C	5 Years
bis(2-chloroethyl) ether	µg/L	8270C	5 Years
bis(2-chloroisopropyl) ether	µg/L	8270C	5 Years
4-Bromophenyl phenyl ether	µg/L	8270C	5 Years
Butylbenzyl phthalate	µg/L	8270C	5 Years
cis-Chlordane	µg/L	8270C	5 Years
p-Chloroaniline	µg/L	8270C	5 Years
Chlorobenzilate	µg/L	8270C	5 Years
p-Chloro-m-cresol (4-Cresol-3-methylphenol)	µg/L	8270C	5 Years
2-Chloronaphthalene	µg/L	8270C	5 Years
2-Chlorophenol	µg/L	8270C	5 Years
4-Chlorophenyl phenyl ether	µg/L	8270C	5 Years
Chrysene	µg/L	8270C	5 Years
Diallate	µg/L	8270C	5 Years
Dibenz(a,h)anthracene	µg/L	8270C	5 Years
Dibenzofuran	µg/L	8270C	5 Years
Di-n-butyl phthalate	µg/L	8270C	5 Years
1,2-Dichlorobenzene	µg/L	8270C	5 Years
1,3-Dichlorobenzene	µg/L	8270C	5 Years
1,4-Dichlorobenzene	µg/L	8270C	5 Years
3,3'-Dichlorobenzidine	µg/L	8270C	5 Years
2,4-Dichlorophenol	µg/L	8270C	5 Years
2,6-Dichlorophenol	µg/L	8270C	5 Years
Diethyl phthalate	µg/L	8270C	5 Years
p-[Dimethylamino] azobenzene	µg/L	8270C	5 Years
7,12-Dimethylbenz[a]anthracene	µg/L	8270C	5 Years
3,3'-Dimethylbenzidine	µg/L	8270C	5 Years
2,4-Dimethylphenol	µg/L	8270C	5 Years
Dimethyl phthalate	µg/L	8270C	5 Years
m-Dinitrobenzene	µg/L	8270C	5 Years
4,6-Dinitro-o-cresol	µg/L	8270C	5 Years
2,4-Dinitrophenol	µg/L	8270C	5 Years
2,4-Dinitrotoluene	µg/L	8270C	5 Years
2,6-Dinitrotoluene	µg/L	8270C	5 Years
Di-n-octyl phthalate	µg/L	8270C	5 Years
Diphenylamine	µg/L	8270C	5 Years
Ethyl methanesulfonate	µg/L	8270C	5 Years
Famphur	µg/L	8270C	5 Years
Fluoranthene	µg/L	8270C	5 Years
Fluorene	µg/L	8270C	5 Years
Hexachlorobenzene	µg/L	8270C	5 Years
Hexachlorocyclopentadiene	µg/L	8270C	5 Years
Hexachloroethane	µg/L	8270C	5 Years
Hexachloropropene	µg/L	8270C	5 Years
Indeno(1,2,3-c,d)pyrene	µg/L	8270C	5 Years
Isophorone	µg/L	8270C	5 Years
Isosafrole	µg/L	8270C	5 Years
Kepone	µg/L	8270C	5 Years
Methapyrilene	µg/L	8270C	5 Years
Methoxychlor	µg/L	8270C	5 Years
3-Methylchloranthrene	µg/L	8270C	5 Years
Methyl methanesulfonate	µg/L	8270C	5 Years
2-Methylnaphthalene	µg/L	8270C	5 Years
2-Methylphenol (o-Cresol)	µg/L	8270C	5 Years

# ATTACHMENT A

**Table 4**  
**Corrective Action Program Monitoring Parameters**  
**Blue Hills Disposal Facility**

Constituent	Units	USEPA Method	Sampling and Analysis Interval
3-Methylphenol (m-Cresol)	µg/L	8270C	5 Years
4-Methylphenol (p-Cresol)	µg/L	8270C	5 Years
1,4-Naphthoquinone	µg/L	8270C	5 Years
1-Naphthylamine	µg/L	8270C	5 Years
2-Naphthylamine	µg/L	8270C	5 Years
2-Nitroaniline	µg/L	8270C	5 Years
3-Nitroaniline	µg/L	8270C	5 Years
4-Nitroaniline	µg/L	8270C	5 Years
Nitrobenzene	µg/L	8270C	5 Years
2-Nitrophenol	µg/L	8270C	5 Years
4-Nitrophenol	µg/L	8270C	5 Years
N-Nitrosodi-n-butylamine	µg/L	8270C	5 Years
N-Nitrosodiethylamine	µg/L	8270C	5 Years
N-Nitrosodimethylamine	µg/L	8270C	5 Years
N-Nitrosodiphenylamine	µg/L	8270C	5 Years
N-Nitrosodipropylamine	µg/L	8270C	5 Years
N-Nitrosomethylethylamine	µg/L	8270C	5 Years
N-nitrosopiperidine	µg/L	8270C	5 Years
N-Nitrosopyrrolidine	µg/L	8270C	5 Years
5-Nitro-o-toluidine	µg/L	8270C	5 Years
Pentachlorobenzene	µg/L	8270C	5 Years
Pentachloronitrobenzene (PCNB)	µg/L	8270C	5 Years
Pentachlorophenol	µg/L	8270C	5 Years
Phenacetin	µg/L	8270C	5 Years
Phenanthrene	µg/L	8270C	5 Years
p-Phenylenediamine	µg/L	8270C	5 Years
Pronamide	µg/L	8270C	5 Years
Pyrene	µg/L	8270C	5 Years
Safrole	µg/L	8270C	5 Years
1,2,4,5-Tetrachlorobenzene	µg/L	8270C	5 Years
2,3,4,6-Tetrachlorophenol	µg/L	8270C	5 Years
o-Toluidine	µg/L	8270C	5 Years
1,2,4-Trichlorobenzene	µg/L	8270C	5 Years
2,4,5-Trichlorophenol	µg/L	8270C	5 Years
2,4,6-Trichlorophenol	µg/L	8270C	5 Years
0,0,0-Triethyl phosphorothioate	µg/L	8270C	5 Years
sym-Trinitrobenzene	µg/L	8270C	5 Years

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
B-204B	08/10/83	--	--	--	--	2490	--	--	--	300	160	156	162	0.49	--	269	--	--	--	--	--
B-204B	06/12/86	--	7.10	3,900	--	5700	--	--	--	900	150	150	520	<0.1	14.0	260	2,900	--	--	--	--
B-204B	08/11/88	21.0	7.70	4,050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204B	09/29/88	24.0	7.05	5,400	--	5300	33	--	--	1,000	450	220	690	2.30	34.0	380	3,600	1.80	3.00	--	--
B-204B	010/5/89	19.0	7.00	5,200	--	5600	42	--	--	880	360	180	640	1.80	13.0	340	2,200	1.40	0.94	--	--
B-204B	06/29/89	--	7.08	7,000	--	5700	41	--	--	890	442	160	645	0.30	30.2	339	2,700	1.46	3.09	--	--
B-204B	01/18/90	14.0	7.14	4,830	--	--	--	--	--	--	400	180	--	--	--	--	--	--	--	--	--
B-204B	04/04/90	26.0	6.95	4,970	--	--	--	--	--	--	340	180	--	--	--	--	--	--	--	--	--
B-204B	08/27/90	21.0	6.90	5,260	--	--	--	--	--	--	600	170	--	--	--	--	--	--	--	--	--
B-204B	11/1/90	21.0	7.00	5,480	--	6,300	36.3	--	--	820	308	170	579	1.90	13	341	3,400	1.36	1.16	--	--
B-204B	1/24/91	18.0	7.34	5,150	--	5,700	--	--	--	--	510	170	--	--	--	--	--	--	--	--	--
B-204B	04/17/91	18.0	7.01	6,050	--	5,500	--	--	--	--	300	190	--	--	--	--	--	--	--	--	--
B-204B	07/17/91	22.0	7.09	5,840	--	5,800	37.9	--	--	--	380	180	--	--	--	--	--	--	--	--	--
B-204B	10/23/91	20.0	6.96	6,410	--	5,700	33.9	--	--	780	366	190	659	0.30	212	342	3,000	1.69	1.92	--	--
B-204B	01/20/92	--	6.13	7,170	--	5,700	46	--	--	--	330	190	--	--	--	--	--	--	--	--	--
B-204B	04/13/92	23.9	7.22	5,610	--	6,000	33.5	--	--	--	380	190	--	--	--	--	--	--	--	--	--
B-204B	07/16/92	21.0	6.99	4,950	--	6,000	27.6	--	--	--	590	170	--	--	--	--	--	--	--	--	--
B-204B	03/09/93	--	6.96	5,440	--	6,100	90	--	--	690	478	200	737	0.10	40	367	3,200	1.74	4.46	--	--
B-204B	5/24/94	--	--	--	--	6,200	38	--	--	890	360	190	670	128	22.9	374	4,100	1.6	2.00	--	--
B-204B	8/18/94	23.6	6.88	6,790	--	6,400	120	--	--	890	427	190	707	ND	31	355	3,200	1.72	2.93	--	--
B-204B	11/21/94	21.0	7.07	5,370	--	5,680	53.1	--	--	926	352	190	637	<0.5	12.9	339	3,200	1.68	1.24	--	--
B-204B	2/22/95	19.8	7.01	5,150	--	5,800	130	--	--	--	451	190	--	--	--	--	--	--	--	--	--
B-204B	5/22/95	23.3	6.96	6,060	--	5,700	60	--	--	--	405	200	--	--	--	--	--	--	--	--	--
B-204B	8/28/95	25.7	6.94	5,760	--	5,800	82	--	--	--	378	180	--	--	--	--	--	--	--	--	--
B-204B	12/6/95	22.1	6.88	5,440	--	5,900	50.0	--	--	870	370	200	680	0.50	16	390	2,600	1.30	1.20	--	--
B-204B	3/21/96	23.0	7.05	5,670	--	5,900	65	--	--	--	327	190	--	--	--	--	--	--	--	--	--
B-204B	6/24/96	22.9	7.32	4,560	--	5,800	42	--	--	--	330	170	--	--	--	--	--	--	--	--	--
B-204B	9/24/96	22.8	7.55	4,550	--	5,900	50	--	--	--	330	180	--	--	--	--	--	--	--	--	--
B-204B	12/12/96	23.1	7.75	4,650	--	5,800	36	--	--	940	190	190	600	ND	14	440	3,300	2.00	1.10	--	--
B-204B	3/17/97	26.1	7.55	5,750	--	5,800	28	--	--	--	380	180	--	--	--	--	--	--	--	--	--
B-204B	5/13/97	23.4	7.59	5,710	--	2,600	45	--	--	--	330	190	--	--	--	--	--	--	--	--	--
B-204B	10/14/97	24.7	6.91	4,100	--	6,000	54	--	--	--	160	190	--	--	--	--	--	--	--	--	--
B-204B	12/30/97	22.5	7.77	4,550	--	5,200	55	--	--	840	340	210	700	ND	13	390	3,300	2.10	0.98	--	--
B-204B	4/1/98	21.6	7.55	7,690	--	5,800	41	--	--	--	370	210	--	--	--	--	--	--	--	--	--
B-204B	5/1/98	24.6	7.51	6,080	--	5,500	43	--	--	--	370	190	--	--	--	--	--	--	--	--	--
B-204B	12/1/98	21.4	7.05	6,105	--	5,500	69	--	--	--	--	210	--	ND	--	--	--	--	--	--	--
B-204B	12/29/98	20.7	7.05	6,150	--	5,200	83	--	--	840	340	210	680	ND	18	370	4,000	--	--	--	--
B-204B	3/25/99	21.5	6.90	4,580	--	5,200	55	--	--	--	--	250	--	ND	--	--	--	--	--	--	--
B-204B	05/19/99	25.0	7.10	5,790	--	5,800	39	--	--	--	--	160	--	ND	--	--	--	--	--	--	--
B-204B	09/08/99	27.4	6.88	5,716	--	5,100	34	--	--	--	--	240	--	ND	--	--	3,400	--	--	--	--
B-204B	12/28/99	19.4	6.79	6,094	--	5,900	42	--	--	--	--	200	--	ND	--	--	--	--	--	--	--
B-204B	03/16/00	22.5	7.44	5,880	4.17	5,600	36	--	--	890	341	230	644	ND	13	390	3,300	--	--	--	--
B-204B	06/28/00	22.5	6.95	5,619	78.2	5,200	42	--	--	--	--	250	--	0.2	--	--	--	--	--	--	--
B-204B	09/27/00	23.4	6.90	5,671	206	5,220	15.8	--	--	--	362	196	--	--	--	--	--	--	--	--	--
B-204B	12/05/00	22.1	6.94	5,935	84.4	6,200	47.1	--	--	840	--	210	620	ND	17	390	3,100	--	--	--	--
B-204B	03/21/01	29.1	6.82	5,801	119	6,000	28	--	--	--	--	220	--	0.04	--	--	--	--	--	--	--
B-204B	06/20/01	26.0	6.84	5,648	--	5,700	33	--	--	--	--	210	--	ND	--	--	--	--	--	--	--
B-204B	09/20/01	26.4	6.84	5,734	323	5,900	37	--	--	--	--	220	--	ND	--	--	--	--	--	--	--
B-204B	12/06/01	20.2	6.92	5,680	165	5,700	42	--	--	830	320	200	590	0.79	13	330	3,300	--	--	--	--
B-204B	03/11/02	22.2	6.82	7,960	>200	6,020	50	--	--	--	--	190	--	ND	--	--	--	--	--	--	--
B-204B	05/08/02	22.4	6.88	5,370	>200	5,820	39	--	--	--	--	210	--	ND	--	--	--	--	--	--	--



# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
B-204B	09/23/02	23.5	6.98	4,510	29.5	5,800	33	--	--	870	370	190	700	0.22	14	390	3,090	--	--	<0.0063	--
B-204B	10/02/02	23.9	6.95	4,870	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.050
B-204B	12/12/02	21.0	7.09	5,210	32.5	5,960	36	--	--	890	360	190	720	<0.05	14	390	3,210	--	--	--	--
B-204B	01/20/03	20.9	6.97	6,100	12.6	5,840	44	--	--	--	--	170	--	0.05	--	--	--	--	--	--	--
B-204B	04/15/03	21.2	6.94	6,000	42.17	5,840	45	--	--	--	--	180	--	<0.5	--	--	--	--	--	--	--
B-204B	08/25/03	21.7	6.74	5,560	16.9	5,900	53	--	--	--	--	200	--	0.1	--	--	--	--	--	--	--
B-204B	10/23/03	22.7	6.89	6,430	16.5	5,560	50	--	--	870	370	200	670	0.46	14	370	3,290	--	--	<0.0063	<0.050
B-204B	01/20/04	20.4	6.98	5,820	12.5	5,760	44	--	--	--	--	230	--	0.38	--	--	--	--	--	--	--
B-204B	01/21/04	20.6	7.01	5,500	13.8	5,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204B	04/01/04	21.8	7.06	5,750	38	5,700	41	--	--	--	--	220	--	<0.05	--	--	--	--	--	--	--
B-204B	07/01/04	23.2	7.27	6,010	60	5,820	40	--	--	--	--	220	--	<0.05	--	--	--	--	--	--	--
B-204B	10/13/04	22.5	6.85	6,060	18.6	5,240	37	<10	810	810	350	210	690	<0.05	14	390	3,190	--	--	<0.0063	<0.050
B-204B	12/01/04	20.7	6.76	5,810	20.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204B	03/09/05	23.08	6.59	11	18.5	5,900	38	--	--	--	--	210	--	<0.10	--	--	--	--	--	--	--
B-204B	05/04/05	22.66	6.75	5,840	19	5,700	40	--	--	--	--	100	--	<0.090	--	--	--	--	--	--	--
B-204B	08/23/05	22.85	6.92	6,110	7.4	5,800	41	--	--	--	--	210	--	<0.050	--	--	--	--	--	<0.0063	--
B-204B	11/01/05	22.59	6.89	6,040	--	5,900	39	--	--	830	360	220	680	<0.060	14	370	3,100	--	--	<0.0063	<0.050
B-204B	01/24/06	20.46	6.82	5,890	2.03	5,600	37	--	--	--	--	200	--	<0.12	--	--	--	--	--	--	--
B-204B	05/10/06	23.56	6.69	6,130	3.68	5,800	39	--	--	--	--	220	--	0.16	--	--	--	--	--	--	--
B-204B	08/01/06	23.08	--	5,360	9.18	6,100	38	--	--	--	--	230	--	<0.090	--	--	--	--	--	--	--
B-204B	10/10/06	22.65	6.78	9,859	17	5,900	45	--	--	790	370	220	690	0.42	14	380	3,200	--	--	<0.0063	<0.050
B-204B	02/07/07	22.16	6.85	5,571	5.17	5,600	43	--	--	--	--	210	--	<0.050	--	--	--	--	--	--	--
B-204C	8/10/83	--	--	--	--	6,360	--	--	--	550	483	276	449	1,500	--	377	--	--	--	--	--
B-204C	6/12/86	--	7.00	5,200	--	7,100	--	--	--	460	520	220	370	0.61	18	280	2,900	--	--	--	--
B-204C	8/11/88	21.0	6.94	5,520	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204C	9/29/88	23.0	6.79	6,600	--	5,800	21.0	--	--	670	700	270	480	0.59	19	400	3,700	1.90	0.50	--	--
B-204C	1/6/89	17.0	6.61	6,400	--	6,900	22.0	--	--	580	780	220	560	0.50	22	380	2,100	1.90	1.10	--	--
B-204C	6/29/89	--	7.04	8,100	--	6,900	20.0	--	--	500	664	210	482	--	15.3	396	2,900	1.78	0.31	--	--
B-204C	1/19/90	15.0	6.92	5,190	--	--	--	--	--	--	470	200	--	--	--	--	--	--	--	--	--
B-204C	4/4/90	29.0	6.62	5,660	--	--	--	--	--	--	540	200	--	--	--	--	--	--	--	--	--
B-204C	8/27/90	22.0	6.67	6,490	--	--	--	--	--	--	530	220	--	--	--	--	--	--	--	--	--
B-204C	11/1/90	18.0	6.68	6,190	--	7,800	23.3	--	--	480	678	200	540	0.60	16	412	3,700	1.820	0.455	--	--
B-204C	1/24/91	18.0	6.23	6,440	--	6,700	--	--	--	--	650	190	--	--	--	--	--	--	--	--	--
B-204C	4/17/91	19.0	6.97	6,960	--	7,700	--	--	--	--	680	200	--	--	--	--	--	--	--	--	--
B-204C	7/18/91	23.0	6.86	6,780	--	7,200	34.7	--	--	--	570	200	--	--	--	--	--	--	--	--	--
B-204C	10/23/91	20.0	6.93	7,380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204C	01/21/92	--	6.51	8,280	--	--	46.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204C	4/13/92	24.4	6.71	6,510	--	--	--	--	--	--	--	220	--	--	--	--	--	--	--	--	--
B-204C	7/17/92	20.0	6.78	6,420	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204C	3/10/93	--	6.93	6,100	--	6,800	33	--	--	470	628	200	498	210	16	400	3,000	2.020	0.401	--	--
B-204C	8/18/94	25.3	6.71	6,620	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-204C	11/21/94	16.3	6.77	6,060	--	6,600	140	--	--	622	633	200	512	210	17.4	--	3,400	2.00	0.672	--	--
B-204C	2/22/95	21	6.91	6,110	--	6,600	37	--	--	--	621	190	--	--	--	--	--	--	--	--	--
B-204C	5/22/95	22.4	6.88	6,780	--	6,300	52	--	--	--	606	410	--	--	--	--	--	--	--	--	--
B-204C	8/28/95	24.1	6.93	6,270	--	6,900	49	--	--	--	629	160	--	--	--	--	--	--	--	--	--
B-204C	12/6-7/95	20.4	6.75	5,670	--	6,700	25	--	--	510	700	190	490	170	33	420	3,200	1.50	1.4	--	--
B-204C	3/21/96	22.8	7.09	6,070	--	6,600	32	--	--	--	605	180	--	--	--	--	--	--	--	--	--
B-204C	6/25/96	25.1	7.22	5,280	--	6,400	34	--	--	--	550	170	--	--	--	--	--	--	--	--	--
B-204C	9/24/96	22.5	6.90	5,700	--	6,100	23	--	--	--	710	180	--	--	--	--	--	--	--	--	--
B-204C	12/12/96	21.8	7.10	5,890	--	--	29	--	--	--	--	--	--	25	--	--	--	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
B-206	8/10/83	--	--	--	--	7,090	--	--	--	410	673	412	372	1,600	--	363	--	--	--	--	--
B-207	6/12/86	--	6.90	4,800	--	6,200	--	--	--	370	480	310	260	0.60	11.0	250	2300	--	--	--	--
B-207	9/29/88	22.0	6.85	2,790	--	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	1/6/89	16.0	6.56	5,680	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	6/29/89	--	--	--	--	--	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	1/19/90	13.0	6.93	4,650	--	--	--	--	--	--	420	290	--	--	--	--	--	--	--	--	--
B-207	4/4/90	23.0	6.71	5,380	--	--	--	--	--	--	510	280	--	--	--	--	--	--	--	--	--
B-207	8/27/90	21.0	7.04	6,140	--	--	--	--	--	--	490	290	--	--	--	--	--	--	--	--	--
B-207	11/1/90	11.0	7.58	5,790	--	6,300	33.9	--	--	330	611	280	373	0.80	11.0	375	2400	1.600	0.831	--	--
B-207	1/24/91	18.0	7.94	4,380	--	5,800	--	--	--	--	590	260	--	--	--	--	--	--	--	--	--
B-207	4/17/91	17.0	7.91	5,920	--	6,400	--	--	--	--	630	270	--	--	--	--	--	--	--	--	--
B-207	7/17/91	25.0	7.39	7,120	--	5,900	29.0	--	--	--	470	270	--	--	--	--	--	--	--	--	--
B-207	10/23/91	20.0	7.61	7,130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	01/21/92	--	6.89	6,800	--	--	32.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	4/13/92	23.9	7.39	5,880	--	5,800	--	--	--	--	--	300	--	--	--	--	--	--	--	--	--
B-207	7/17/92	20.0	7.37	6,270	--	5,800	--	--	--	--	--	290	--	--	--	--	--	--	--	--	--
B-207	5/24/94	--	--	--	--	6,500	22.0	--	--	410	612	380	563	168	18.3	466	2900	1.700	2.390	--	--
B-207	8/18/94	23.8	6.90	6,140	--	6,800	190.0	--	--	410	739	370	597	240	20.0	442	2700	1.81	2.74	--	--
B-207	11/21/94	20.4	6.88	5,350	--	6,610	44.3	--	--	397	570	340	486	230	12.9	--	2400	1.55	1.87	--	--
B-207	2/22/95	21.1	7.00	5,600	--	--	54	--	--	--	451	350	--	--	--	--	--	--	--	--	--
B-207	5/22/95	21.9	6.71	6,110	--	5,900	58	--	--	--	623	190	--	--	--	--	--	--	--	--	--
B-207	8/28/95	25	6.78	6,090	--	6,300	40	--	--	--	602	290	--	--	--	--	--	--	--	--	--
B-207	12/6/95	20.8	5.54	7,430	--	6,200	23.0	--	--	380	630	320	--	330	11.0	480	2900	1.40	1.30	--	--
B-207	3/21/96	23.0	6.83	6,260	--	6,200	21	--	--	--	553	310	--	--	--	--	--	--	--	--	--
B-207	6/25/96	21.1	6.94	4,800	--	6,000	19	--	--	--	550	300	--	--	--	--	--	--	--	--	--
B-207	9/24/96	23.2	7.28	5,070	--	6,100	23	--	--	--	700	310	--	--	--	--	--	--	--	--	--
B-207	12/12/96	23.8	7.29	5,970	--	5,400	20	--	--	400	850	311	470	210	11	550	2600	2.10	1.0	--	--
B-207	3/17/97	24.4	7.33	6,220	--	6,300	13	--	--	--	600	320	--	--	--	--	--	--	--	--	--
B-207	5/13/97	23.8	7.31	6,070	--	5,700	19	--	--	--	610	310	--	--	--	--	--	--	--	--	--
B-207	10/14/97	24.7	6.79	4,620	--	5,100	20	--	--	--	470	340	--	--	--	--	--	--	--	--	--
B-207	12/30/97	21.9	7.31	4,990	--	5,300	25	--	--	370	640	350	400	200	9.6	440	2600	2.20	1.7	--	--
B-207	3/31/98	23.7	7.51	6,300	--	5,900	19	--	--	--	700	340	--	--	--	--	--	--	--	--	--
B-207	5/1/98	22.5	7.45	6,740	--	5,800	23	--	--	--	690	310	--	--	--	--	--	--	--	--	--
B-207	12/1/98	21.9	9.93	6,754	--	5,600	31	--	--	--	--	330	--	190	--	--	--	--	--	--	--
B-207	12/29/98	20.5	7.48	6,310	--	5,700	34	--	--	380	670	350	500	180	12.0	500	4,000	--	--	--	--
B-207	3/25/99	20.9	6.70	5,060	--	5,600	23	--	--	--	--	370	--	220	--	--	--	--	--	--	--
B-207	05/19/99	25.6	7.00	7,150	--	4,900	20	--	--	--	--	260	--	200	--	--	--	--	--	--	--
B-207	09/08/99	28.2	6.74	6,221	--	5,000	15	--	--	--	--	320	--	220	--	--	2,500	--	--	--	--
B-207	12/28/99	21.1	6.64	6,518	--	6,300	19	--	--	--	--	460	--	240	--	--	--	--	--	--	--
B-207	03/16/00	22.0	6.69	6,561	5.26	5,900	33	--	--	410	540	360	479	220	9.1	497	2,700	--	--	--	--
B-207	06/27/00	22.0	6.65	6,254	733	5,600	16	--	--	--	--	370	--	160	--	--	--	--	--	--	--
B-207	09/27/00	24.1	6.68	6,185	458	5,900	35.6	--	--	--	640	313	--	--	--	--	--	--	--	--	--
B-207	12/05/00	22.0	6.76	6,750	108	6,600	23.2	--	--	420	--	330	450	230	11	470	2,800	--	--	--	--
B-207	03/21/01	24.6	6.57	6,571	207	6,200	24.6	--	--	--	--	330	--	253	--	--	--	--	--	--	--
B-207	06/20/01	26.9	6.64	6,198	--	6,400	15	--	--	--	--	320	--	254	--	--	--	--	--	--	--
B-207	09/20/01	27.8	6.64	6,676	62.8	6,500	17.2	--	--	--	--	340	--	208	--	--	--	--	--	--	--
B-207	12/06/01	20.3	6.70	6,350	140	5,900	15.2	--	--	400	580	300	450	227	10	460	2,700	--	--	--	--
B-207	03/11/02	22.3	6.74	8,400	>200	6,460	20	--	--	--	--	300	--	300	--	--	--	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
B-207	05/08/02	22.7	6.75	6,270	7.9	6,660	18	--	--	--	--	330	--	230	--	--	--	--	--	--	--
B-207	09/24/02	23.1	6.77	6,450	8	6,100	17	--	--	450	650	300	540	130	11	510	2,780	--	--	<0.0063	<0.050
B-207	12/12/02	19.5	6.45	5,630	10	6,120	19	--	--	480	640	320	570	250	12	530	2,820	--	--	--	--
B-207	01/20/03	20.9	6.85	6,710	4.9	6,320	18	--	--	--	--	300	--	190	--	--	--	--	--	--	--
B-207	04/15/03	22.3	6.65	7,060	8.0	6,480	20	--	--	--	--	300	--	240	--	--	--	--	--	--	--
B-207	08/25/03	23.6	6.69	6,030	0.1	5,820	21	--	--	--	--	310	--	240	--	--	--	--	--	--	--
B-207	10/23/03	20.9	6.80	7,480	3.1	6,040	24	--	--	460	640	330	520	250	10	440	2,900	--	--	<0.0063	<0.050
B-207	01/20/04	20.1	6.77	6,420	7.5	6,080	20	--	--	--	--	360	--	260	--	--	--	--	--	--	--
B-207	01/21/04	21.1	6.87	6,530	9.5	6,530	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	04/01/04	20.4	6.72	6,820	1.82	6,500	18	--	--	--	--	340	--	250	--	--	--	--	--	--	--
B-207	07/01/04	24.5	6.69	6,830	10.89	3,220	16	--	--	--	--	300	--	270	--	--	--	--	--	--	--
B-207	10/13/04	23.0	6.80	6,780	2.91	6,460	16	--	430	430	630	320	500	250	11	470	2,940	--	--	0.012	<0.050
B-207	12/01/04	22.1	6.68	5,860	7.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	03/10/05	22.45	6.54	2	1.77	6,600	16	--	--	--	--	310	--	250	--	--	--	--	--	--	--
B-207	05/06/05	22.18	6.67	6,020	1.4	6,600	16	--	--	--	--	340	--	260	--	--	--	--	--	--	--
B-207	08/24/05	22.42	6.77	7,110	2.1	8,400	18	--	--	--	--	320	--	270	--	--	--	--	--	0.010 (tr)	--
B-207	11/03/05	22.00	6.66	6,850	1.97	6,300	17	--	--	440	580	310	500	250	10	450	2,900	--	--	0.012	<0.050
B-207	01/26/06	21.61	6.67	6,730	0.52	6,500	16	--	--	--	--	320	--	250	--	--	--	--	--	--	--
B-207	05/10/06	22.81	6.65	5,960	1.27	6,300	16	--	--	--	--	330	--	230	--	--	--	--	--	--	--
B-207	08/03/06	24.28	6.75	6,920	1.06	6,500	19	--	--	--	--	300	--	260	--	--	--	--	--	--	--
B-207	10/12/06	22.67	6.69	13,429	2.6	6,200	2.1	--	--	480	690	300	580	280	12	510	3,200	--	--	<0.0063	<0.050
B-207	02/07/07	21.84	6.73	6,608	1.02	6,400	20	--	--	--	--	320	--	250	--	--	--	--	--	--	--
E-1A	7/14/86	--	--	--	--	8,300	68	--	--	600	97	81	880	8.00	30.0	700	8,800	--	--	--	--
E-1A	8/26/87	27.0	7.13	7290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-2	6/12/86	--	7.30	7400	--	11,000	--	--	--	690	210	96	1200	1.40	23.0	500	9000	--	--	--	--
E-2	8/26/87	27.0	7.20	8600	--	8,400	45.0	--	--	650	400	160	1200	1.10	24.0	800	6800	--	--	--	--
E-2	3/30/88	--	7.19	8200	--	7,700	46.0	--	--	620	400	120	1400	1.20	19.0	610	6500	1.20	0.210	--	--
E-2	6/29/88	22.0	7.36	8200	--	11,000	46.0	--	--	600	370	88	1260	1.70	18.0	683	5900	1.30	0.089	--	--
E-2	9/29/88	23.0	7.15	7840	--	9,800	47.0	--	--	770	350	110	1200	0.45	18.0	630	6900	1.30	0.220	--	--
E-2	1/6/89	17.0	6.98	8090	--	9,700	41.0	--	--	1,400	360	120	1200	1.40	18.0	570	5500	1.30	0.140	--	--
E-2	6/29/89	--	6.84	9300	--	9,300	37.0	--	--	650	313	100	999	0.50	16.7	543	4800	1.27	0.160	--	--
E-2	1/19/90	14.0	7.15	6140	--	--	--	--	--	--	220	100	--	--	--	--	--	--	--	--	--
E-2	4/4/90	22.0	7.03	6600	--	--	--	--	--	--	270	100	--	--	--	--	--	--	--	--	--
E-2	8/27/90	25.0	6.97	6240	--	--	--	--	--	--	270	100	--	--	--	--	--	--	--	--	--
E-2	11/2/90	14.0	7.23	6930	--	8,700	32.4	--	--	650	274	90	907	<0.1	16.0	526	3800	1.28	0.280	--	--
E-2	1/25/91	16.0	7.03	6500	--	7,600	--	--	--	--	300	85	--	--	--	--	--	--	--	--	--
E-2	4/18/91	20.0	7.22	6870	--	8,400	--	--	--	--	280	91	--	--	--	--	--	--	--	--	--
E-2	7/17/91	26.0	6.79	7430	--	7,800	31.8	--	--	--	240	85	--	--	--	--	--	--	--	--	--
E-2	10/24/91	21.0	6.92	8810	--	8,100	33.0	--	--	640	285	89	887	<0.1	16.4	540	4600	1.49	0.247	--	--
E-2	1/21/92	--	6.90	7420	--	7,500	32.2	--	--	--	300	81	--	--	--	--	--	--	--	--	--
E-2	4/14/92	22.2	6.82	7130	--	7,500	28.8	--	--	--	420	86	--	--	--	--	--	--	--	--	--
E-2	7/17/92	18.9	7.07	1500	--	7,500	29.6	--	--	--	300	66	--	--	--	--	--	--	--	--	--
E-2	3/10/93	20.6	7.31	8330	--	10,000	41.4	--	--	670	274	110	1330	0.20	16.0	567	6400	1.47	0.105	--	--
E-2	5/24/94	--	--	--	--	9,000	34.1	--	--	640	260	120	1187	<0.4	16.0	560	7800	1.50	0.050	--	--
E-2	8/18/94	26.3	7.91	7,260	--	8,800	31.0	--	--	640	253	120	1070	ND	16.0	526	4800	1.44	0.1	--	--
E-2	11/21/94	18.1	6.83	2,170	--	8,490	29.8	--	--	642	259	120	--	<0.5	16.9	--	5200	1.39	0.095	--	--
E-2	2/22/95	17.3	6.95	8,130	--	8,100	30	--	--	--	248	130	--	--	--	--	--	--	--	--	--
E-2	5/22/95	23.6	6.94	8,730	--	9,700	38.8	--	--	--	285	110	--	--	--	--	--	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-2	8/28/95	27.6	6.96	8,530	--	13,000	55	--	--	--	354	64	--	--	--	--	--	--	--	--	--
E-2	12/6/95	23.1	6.89	7,530	--	11,000	71.0	--	--	560	380	96	1500.0	250	25.0	700.0	6900	1.20	0.030	--	--
E-2	3/21/96	23.5	7.08	9,020	--	9,300	47	--	--	--	310	90	--	--	--	--	--	--	--	--	--
E-2	6/25/96	24.1	7.12	6,910	--	9,600	43	--	--	--	300	150	--	--	--	--	--	--	--	--	--
E-2	9/24/96	23.9	7.23	6,300	--	8,900	23	--	--	--	290	110	--	--	--	--	--	--	--	--	--
E-2	12/12/96	23.9	7.29	6,410	--	8,300	25	--	--	690	360	100	1400	16	17	700	5000	1.60	0.11	--	--
E-2	3/18/97	22.7	7.68	9,490	--	12,000	70	--	--	--	380	80	--	--	--	--	--	--	--	--	--
E-2	5/13/97	22.9	7.62	9,600	--	28,000	64	--	--	--	410	73	--	--	--	--	--	--	--	--	--
E-2	10/13/97	23.6	7.07	10,150	--	13,500	63	--	--	--	390	80	--	--	--	--	--	--	--	--	--
E-2	12/29/97	20.6	7.25	6,420	--	11,000	68	--	--	560	410	81	1,600	300	20	880	7700	2.10	0.03	--	--
E-2	4/1/98	21.2	7.73	11,070	--	14,000	83	--	--	--	460	75	--	--	--	--	--	--	--	--	--
E-2	5/1/98	22.3	7.75	11,410	--	12,000	66	--	--	--	450	79	--	--	--	--	--	--	--	--	--
E-2	12/1/98	20.6	7.08	11,050	--	11,000	87	--	--	--	--	88	--	350	--	--	--	--	--	--	--
E-2	12/29/98	20.7	7.05	11,110	--	10,000	93	--	--	560	440	88	1,500	260	20	840	7,400	--	--	--	--
E-2	3/25/99	21.9	6.80	8,600	--	12,000	79	--	--	--	--	90	--	470	--	--	--	--	--	--	--
E-2	05/19/99	23.7	7.00	9,060	--	13,000	76	--	--	--	--	61	--	340	--	--	--	--	--	--	--
E-2	09/08/99	28.2	6.92	10,760	--	10,000	53	--	--	--	--	69	--	430	--	--	7,500	--	--	--	--
E-2	12/28/99	17.9	6.98	11,920	--	12,000	72	--	--	--	--	95	--	440	--	--	--	--	--	--	--
E-2	03/16/00	23.0	7.01	11,310	2.9	13,000	110	--	--	560	415	79	1,490	460	19	841	7,800	--	--	--	--
E-2	06/28/00	23.0	6.81	10,930	18.3	12,000	68	--	--	--	--	<4	--	450	--	--	--	--	--	--	--
E-2	12/06/00	20.0	7.03	11,170	28.7	14,000	57.7	--	--	600	--	75	1,400	400	21	830	6,900	--	--	--	--
E-2	03/22/01	22.4	6.93	11,030	55.8	13,000	58.8	--	--	--	--	83	--	--	--	--	--	--	--	--	--
E-2	06/21/01	27.7	6.93	10,380	--	13,000	62	--	--	--	--	96	--	439	--	--	--	--	--	--	--
E-2	09/21/01	23.3	6.81	11,150	127	13,000	67.5	--	--	640	460	97	1,500	47	25	870	6,700	--	--	--	--
E-2	12/06/01	20.2	7.15	10,530	53	13,000	72	--	--	630	450	99	1,600	449	24	710	6,500	--	--	--	--
E-2	03/11/02	21.6	6.88	14,100	>200	13,400	77	--	--	--	--	77	--	430	--	--	--	--	--	--	--
E-2	05/08/02	22.1	6.80	10,270	6	13,400	95	--	--	--	--	80	--	410	--	--	--	--	--	--	--
E-2	09/25/02	23.7	6.82	10,120	7	13,000	75	--	--	--	--	83	--	160	--	--	--	--	--	--	--
E-2	12/12/02	21.9	6.83	11,590	2	12,600	76	--	--	680	520	88	1,800	390	23	870	7,020	--	--	--	--
E-2	01/21/03	22.0	6.80	11,610	1.5	13,300	80	--	--	--	--	83	--	460	--	--	--	--	--	--	--
E-2	04/15/03	21.3	6.97	11,780	0	13,400	79	--	--	--	--	92	--	330	--	--	--	--	--	--	--
E-2	08/26/03	23.2	6.86	11,780	1.8	13,500	84	--	--	--	--	98	--	480	--	--	--	--	--	--	--
E-2	10/22/03	23.4	6.96	11,160	3	12,400	82	--	--	660	480	97	1,600	470	24	830	7,330	--	--	0.020	<0.050
E-2	10/23/03	23.4	6.88	11,190	3.4	--	--	--	--	--	--	--	--	480	--	--	--	--	--	--	--
E-2	01/20/04	20.6	7.01	11,860	1	12,800	76	--	--	--	--	130	--	460	--	--	--	--	--	--	--
E-2	01/21/04	21.3	6.88	11,300	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-2	02/10/04	21.0	6.85	11,410	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.031	--
E-2	03/04/04	20.7	6.90	11,530	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-2	04/01/04	21.8	6.87	12,120	0.29	13,000	64	--	--	--	--	120	--	470	--	--	--	--	--	<0.0063	--
E-2	07/01/04	24.2	7.05	12,210	3.5	13,200	67	--	--	--	--	110	--	490	--	--	--	--	--	0.052	--
E-2	10/14/04	23.8	6.93	11,570	3.31	12,200	67	<20	690	690	530	120	1,700	400	23	870	7630	--	--	<0.0063	<0.050
E-2	11/30/04	21.7	6.65	12,080	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-2	03/10/05	22.75	6.73	756	2.2	13,000	68	--	--	--	--	110	--	390	--	--	--	--	--	--	--
E-2	05/06/05	22.81	6.92	11,550	2.1	13,000	65	--	--	--	--	130	--	450	--	--	--	--	--	--	--
E-2	08/25/05	24.11	6.91	11,700	2.54	12,000	66	--	--	--	--	110	--	420	--	--	--	--	--	0.010 (tr)	--
E-2	11/03/05	22.78	6.99	11,430	0.89	13,000	67	--	--	670	400	110	1,300	450	17	650	6,500	--	--	0.038	--
E-2	01/26/06	19.48	6.93	11,610	0.75	12,000	75	--	--	--	--	110	--	460	--	--	--	--	--	--	--
E-2	5/12/2006 <sup>4</sup>	23.50	6.81	10,550	0.44	12,000	68	--	--	--	--	110	--	470	--	--	--	--	--	--	--
E-2	8/3/06, 8/4/06	25.00	6.97	12,030	36.5	13,000	81	--	--	--	--	100	--	480	--	--	--	--	--	--	--
E-2	10/12/06	23.18	6.94	23,364	1.7	12,000	83	--	--	730	500	130	1,500	480	21	760	7,000	--	--	0.035	<0.050

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-2	02/06/07	22.96	6.94	11,064	1.92	12,000	86	--	--	--	--	130	--	540	--	--	--	--	--	--	--
E-3	6/12/86	--	7.20	5700	--	8,500	--	--	--	500	310	230	760	0.69	13.0	260	4800	--	--	--	--
E-3	8/26/87	29.0	7.31	6400	--	6,600	24.0	--	--	460	500	290	610	0.55	24.0	370	3900	--	--	--	--
E-3	3/30/88	--	7.36	6500	--	5,800	23.0	--	--	440	540	260	830	0.76	11.0	300	3800	0.98	0.130	--	--
E-3	6/29/88	20.0	7.06	6800	--	7,400	26.0	--	--	460	512	44	742	0.61	10.0	322	3900	1.20	0.094	--	--
E-3	8/11/88	21.0	7.24	5710	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3	9/28/88	22.0	7.24	6140	--	7,300	28.0	--	--	510	520	270	780	0.30	11.0	320	4200	1.30	0.150	--	--
E-3	1/6/89	18.0	6.99	6920	--	7,500	27.0	--	--	700	560	270	850	0.50	11.0	310	2800	1.400	0.100	--	--
E-3	6/29/89	--	6.96	7400	--	7,400	24.0	--	--	450	481	270	699	0.10	8.2	302	4500	1.280	0.090	--	--
E-3	1/19/90	14.0	7.23	5680	--	--	--	--	--	--	350	270	--	--	--	--	--	--	--	--	--
E-3	4/4/90	23.0	6.93	6260	--	--	--	--	--	--	420	260	--	--	--	--	--	--	--	--	--
E-3	8/27/90	26.0	7.22	7080	--	--	--	--	--	--	440	290	--	--	--	--	--	--	--	--	--
E-3	11/1/90	17.0	7.08	6310	--	7,900	24.1	--	--	430	473	260	741	0.90	8.0	306	3700	1.340	0.146	--	--
E-3	1/24/91	19.0	6.30	5690	--	7,000	--	--	--	--	510	260	--	--	--	--	--	--	--	--	--
E-3	4/17/91	20.0	7.33	7090	--	7,800	--	--	--	--	480	270	--	--	--	--	--	--	--	--	--
E-3	7/17/91	24.0	6.84	6810	--	7,500	23.0	--	--	--	380	270	--	--	--	--	--	--	--	--	--
E-3	10/23/91	22.0	7.10	5890	--	7,300	22.3	--	--	440	497	290	752	120	10.2	297	3400	1.540	0.127	--	--
E-3	1/20/92	--	6.86	6710	--	7,400	21.7	--	--	--	510	280	--	--	--	--	--	--	--	--	--
E-3	4/14/92	21.1	6.90	7140	--	7,200	22.9	--	--	--	280	280	--	--	--	--	--	--	--	--	--
E-3	7/17/92	18.0	6.82	1473	--	7,000	23.6	--	--	--	460	260	--	--	--	--	--	--	--	--	--
E-3	3/10/93	21.1	7.46	6640	--	7,100	22.0	--	--	420	483	270	722	130	9.6	300	3500	1.530	0.164	--	--
E-3	5/24/94	--	--	--	--	7,200	23.5	--	--	520	478	280	728	22	8.5	311	3200	1.510	0.111	--	--
E-3	8/18/94	26.1	6.84	5,680	--	7,500	22.8	--	--	410	558	290	755	120	24.0	296	3700	1.51	0.1	--	--
E-3	11/21/94	17.9	6.77	2,310	--	7,230	22.8	--	--	423	500	280	716	130	9.3	280	3,800	1.52	0.075	--	--
E-3	2/22/95	18.4	7.05	6,200	--	6,900	21	--	--	--	494	300	--	--	--	--	--	--	--	--	--
E-3	5/22/95	22.3	7.07	6,380	--	6,700	21.7	--	--	--	490	300	--	--	--	--	--	--	--	--	--
E-3	8/28/95	28.4	7.04	5,500	--	6,900	22.3	--	--	--	489	260	--	--	--	--	--	--	--	--	--
E-3	12/6/95	22.6	6.95	4,950	--	7,200	24.0	--	--	420	550	290	760	150	11.0	300	3,400	1.20	0.200	--	--
E-3	3/21/96	22.7	7.20	6,460	--	6,900	28	--	--	--	486	280	--	--	--	--	--	--	--	--	--
E-3	6/25/96	25.2	7.27	5,290	--	6,600	24	--	--	--	450	270	--	--	--	--	--	--	--	--	--
E-3	9/24/96	23.6	7.28	5,250	--	6,800	25	--	--	--	490	270	--	--	--	--	--	--	--	--	--
E-3	12/12/96	22.2	8.28	5,230	--	6,500	25	--	--	480	700	290	900	120	9.5	350	3,400	1.80	0.06	--	--
E-3	3/18/97	23.4	7.75	6,080	--	6,700	19	--	--	--	500	270	--	--	--	--	--	--	--	--	--
E-3	5/14/97	23.7	7.72	6,080	--	6,500	23	--	--	--	490	280	--	--	--	--	--	--	--	--	--
E-3	10/13/97	22.5	7.09	4,350	--	6,700	28	--	--	--	420	290	--	--	--	--	--	--	--	--	--
E-3	12/29/97	21.0	8.25	5,250	--	6,300	35	--	--	410	480	310	710	120	8.9	280	3,600	1.70	0.13	--	--
E-3	4/1/98	21.8	7.54	6,645	--	6,700	21	--	--	--	500	260	--	--	--	--	--	--	--	--	--
E-3	5/1/98	22.7	7.51	6,590	--	6,200	17	--	--	--	620	260	--	--	--	--	--	--	--	--	--
E-3	12/1/98	20.0	7.21	6,908	--	6,500	26	--	--	--	--	310	--	110	--	--	--	--	--	--	--
E-3	12/29/98	20.1	7.24	6,912	--	6,000	27	--	--	400	450	320	710	110	9.1	290	5,000	--	--	--	--
E-3	3/24/99	21.4	6.90	5,180	--	6,300	24	--	--	--	--	330	--	110	--	--	--	--	--	--	--
E-3	05/19/99	24.5	7.30	6,410	--	6,700	23	--	--	--	--	1100	--	100	--	--	--	--	--	--	--
E-3	09/08/99	31.4	6.97	5,997	--	5,700	17	--	--	--	--	300	--	110	--	--	3,500	--	--	--	--
E-3	12/28/99	20.0	6.93	6,822	--	6,400	22	--	--	--	--	300	--	110	--	--	--	--	--	--	--
E-3	03/16/00	19.8	7.07	6,734	3.15	6,600	31	--	--	420	471	320	697	92	10	299	3,900	--	--	--	--
E-3	06/28/00	19.8	6.97	6,477	101	6,300	16	--	--	--	--	320	--	100	--	--	--	--	--	--	--
E-3	09/29/00	22.2	6.86	6,495	16.8	6,430	21.7	--	--	--	536	267	--	--	--	--	--	--	--	--	--
E-3	12/06/00	19.3	6.84	6,620	19.1	7,100	74.0	--	--	440	--	290	660	100	11	290	3,600	--	--	--	--
E-3	03/22/01	21.4	6.70	6,553	324	6,700	20.1	--	--	--	--	310	--	--	--	--	--	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-3	06/21/01	28.8	6.98	5,709	--	6,400	19.8	--	--	--	--	290	--	91	--	--	--	--	--	--	--
E-3	09/21/01	26.5	7.04	6,047	71.5	6,700	21.6	--	--	--	--	310	--	84.6	--	--	--	--	--	--	--
E-3	12/06/01	20.5	7.52	7,670	45	5,900	15	--	--	380	460	240	690	104	10	280	3,200	--	--	--	--
E-3	03/12/02	21.8	6.95	7,980	49	6,960	21	--	--	--	--	290	--	100	--	--	--	--	--	--	--
E-3	05/09/02	22.8	7.00	8,230	24.7	6,540	24	--	--	--	--	270	--	120	--	--	--	--	--	--	--
E-3	09/25/02	23.7	6.96	5,950	7	6,640	21	--	--	--	--	280	--	45	--	--	--	--	--	--	--
E-3	12/12/02	21.8	6.85	6,210	2.5	6,820	20	--	--	450	560	270	830	110	12	300	3,570	--	--	--	--
E-3	01/21/03	21.9	6.87	6,480	2.8	6,640	21	--	--	--	--	250	--	110	--	--	--	--	--	--	--
E-3	04/15/03	22.3	6.98	6,610	10.93	6,740	21	--	--	--	--	250	--	110	--	--	--	--	--	--	--
E-3	08/26/03	23.1	6.89	6,320	0.81	6,880	26	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-3	10/22/03	23.6	6.80	6,300	2	5,740	24	--	--	460	540	280	730	110	11	290	3,640	--	--	<0.0063	<0.050
E-3	01/20/04	20.7	6.97	6,520	0.6	6,400	21	--	--	--	--	280	--	120	--	--	--	--	--	--	--
E-3	01/21/04	21.2	7.10	6,270	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3	04/01/04	23.9	7.02	6,550	4.08	6,700	19	--	--	--	--	300	--	110	--	--	--	--	--	--	--
E-3	07/02/04	23.6	6.75	6,520	7.61	6,800	18	--	--	--	--	290	--	120	--	--	--	--	--	--	--
E-3	10/14/04	22.9	6.67	6,700	2.8	6,940	18	<20	470	470	560	280	740	120	11	290	3,630	--	--	<0.0063	<0.050
E-3	11/30/04	21.5	6.81	6,550	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3	03/10/05	24.38	6.92	0	2.1	6,800	19	--	--	--	--	270	--	120	--	--	--	--	--	--	--
E-3	05/06/05	22.03	6.91	6,590	6.10	6,900	20	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-3	08/25/05	23.54	7.02	6,790	5.18	6,700	20	--	--	--	--	270	--	110	--	--	--	--	--	0.010 (tr)	--
E-3	11/03/05	23.06	6.96	6,620	6.40	6,900	19	--	--	470	530	270	750	110	11	290	3,500	--	--	--	--
E-3	01/26/06	21.92	6.96	6,610	0.95	6,700	20	--	--	--	--	270	--	110	--	--	--	--	--	--	--
E-3	05/12/06	23.14	6.88	6,010	1.00	6,400	19	--	--	--	--	260	--	120	--	--	--	--	--	--	--
E-3	08/04/06	23.06	6.99	6,450	3.57	6,800	20	--	--	--	--	250	--	120	--	--	--	--	--	--	--
E-3	10/12/06	23.22	6.98	12,796	2.5	6,100	21	--	--	470	530	280	720	130	11	280	3,700	--	--	<0.0063	<0.050
E-3	02/07/07	22.50	6.93	6,295	3.81	6,500	21	--	--	--	--	270	--	120	--	--	--	--	--	--	--
E-6	03/13/02	20.3	6.93	3,270	30.9	2,950	39	--	--	--	--	23	--	0.5	--	--	--	--	--	--	--
E-6	05/08/02	20.6	6.95	3,664	5.6	4,140	49	--	--	--	--	21	--	<0.1	--	--	--	--	--	--	--
E-6	09/24/02	23.5	6.90	3,450	2.18	2,730	34	--	--	--	--	20	--	<0.05	--	--	--	--	--	--	--
E-6	12/11/02	20.1	7.66	3,360	2.2	2,940	36	--	--	1,300	150	20	440	<0.05	16	190	1,150	--	--	--	--
E-6	01/21/03	21.8	6.87	3,320	2.5	2,930	25	--	--	--	--	20	--	<0.05	--	--	--	--	--	--	--
E-6	04/16/03	22.5	6.90	3,510	16.2	2,630	36	--	--	--	--	22	--	<0.5	--	--	--	--	--	--	--
E-6	08/25/03	22.9	6.67	3,300	1.9	2,420	52	--	--	--	--	23	--	<0.05	--	--	--	--	--	--	--
E-6	10/23/03	22.7	7.60	3,340	0	2,250	37	--	--	1,300	120	23	330	<0.05	13	160	788	--	--	<0.0063	<0.050
E-6	01/21/04	17.6	7.19	3,250	11.6	2,640	40	--	--	--	--	26	--	<0.05	--	--	--	--	--	--	--
E-6	04/01/04	23.9	7.02	3,280	1.5	2,510	32	--	--	--	--	26	--	<0.05	--	--	--	--	--	--	--
E-6	07/02/04	23.1	6.65	2,910	3.2	2,750	21	--	--	--	--	30	--	<0.05	--	--	--	--	--	--	--
E-6	10/14/04	22.3	6.95	2,950	3.8	2,400	23	<20	1,300	1,300	130	25	360	<0.05	14	180	929	--	--	<0.0063	<0.050
E-6	12/01/04	20.4	7.09	2,800	5.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-6	03/09/05	22.6	7.08	1,220	0.72	2,500	33	--	--	--	--	26	--	<0.10	--	--	--	--	--	--	--
E-6	05/05/05	22.52	6.97	3,190	1.3	2,300	30	--	--	--	--	26	--	<0.036	--	--	--	--	--	--	--
E-6 <sup>3</sup>	08/24/05	24.45	7.14	3,390	1.41	2,500	26	--	--	--	--	27	--	<0.10	--	--	--	--	--	<0.0063	--
E-6	11/02/05	22.15	6.90	3,170	0.40	2,500	23	--	--	1,200	120	24	330	<0.060	12	160	960	--	--	<0.0063	--
E-6	01/25/06	20.99	6.96	3,250	0.89	2,500	26	--	--	--	--	24	--	<0.060	--	--	--	--	--	--	--
E-6	05/12/06	24.01	6.92	3,080	0.57	2,700	32	--	--	--	--	26	--	0.72	--	--	--	--	--	--	--
E-6	8/3/06, 8/4/06	23.22	6.93	3,100	0.64	3,000	29	--	--	--	--	21	--	2.9	--	--	--	--	--	--	--
E-6	10/12/06	25.96	7.03	7,142	1.8	3,000	33	--	--	1,100	170	25	430	1.2	15	190	1400	--	--	<0.0063	<0.050
E-6	02/06/07	20.91	7.31	3,450	13.1	3,200	39	--	--	--	--	26	--	<0.050	--	--	--	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-7	8/26/87	27.0	7.19	4900	--	5000	21.0	--	--	580	500	190	460	1.20	13.0	340	2400	--	--	--	--
E-7	3/30/88	--	7.08	4500	--	3500	22.0	--	--	570	570	200	470	1.10	23.0	280	2400	0.560	0.150	--	--
E-7	6/29/88	20.0	7.44	4,800	--	4,900	23.0	--	--	590	540	190	388	0.30	22.0	280	2600	0.900	0.340	--	--
E-7	9/28/88	25.0	7.06	5,300	--	5,400	26.0	--	--	700	530	200	410	<0.1	21.0	300	2800	1.000	0.260	--	--
E-7	1/6/89	20.0	6.83	5,000	--	5,200	25.0	--	--	630	550	180	460	0.80	23.0	290	1800	1.000	0.250	--	--
E-7	6/29/89	--	6.90	6,400	--	5,400	22.0	--	--	600	506	180	391	0.10	21.2	285	3,600	0.990	0.250	--	--
E-7	1/19/90	17.0	7.02	3,960	--	--	--	--	--	--	360	190	--	--	--	--	--	--	--	--	--
E-7	4/4/90	19.0	6.17	5,420	--	--	--	--	--	--	400	180	--	--	--	--	--	--	--	--	--
E-7	8/27/90	23.0	6.93	5,240	--	--	--	--	--	--	430	200	--	--	--	--	--	--	--	--	--
E-7	11/2/90	16.0	6.90	3,450	--	5,700	21.8	--	--	580	497	170	417	3.80	22.0	292	2,800	1.030	0.342	--	--
E-7	1/25/91	15.0	6.47	5,230	--	5,000	--	--	--	--	510	160	--	--	--	--	--	--	--	--	--
E-7	4/17/91	19.0	6.97	5,430	--	5,400	--	--	--	--	500	170	--	--	--	--	--	--	--	--	--
E-7	7/17/91	25.0	6.98	5,520	--	5,300	22.2	--	--	--	380	170	--	--	--	--	--	--	--	--	--
E-7	10/23/91	21.0	7.12	5,260	--	5,100	22.5	--	--	570	506	180	433	88	23.1	292	2,500	1.210	0.279	--	--
E-7	1/20/92	--	6.36	6,650	--	5,400	21.7	--	--	--	510	180	--	--	--	--	--	--	--	--	--
E-7	4/14/92	32.2	6.77	5,490	--	5,400	19.7	--	--	--	390	180	--	--	--	--	--	--	--	--	--
E-7	7/17/92	18.0	6.69	1,283	--	5,500	18.5	--	--	--	500	170	--	--	--	--	--	--	--	--	--
E-7	3/10/93	22.2	6.77	5,160	--	5,500	21.7	--	--	580	506	170	422	34	24.0	300	2,700	1.200	0.269	--	--
E-7	5/24/94	--	--	--	--	5,600	23.3	--	--	570	529	79	469	21	25.0	342	2,000	1.270	0.282	--	--
E-7	8/18/94	26.6	7.01	5,200	--	5,600	22.3	--	--	590	541	170	421	28	24.0	286	2,800	1.27	0.272	--	--
E-7	11/21/94	17.1	6.92	2,120	--	5,530	22.2	--	--	596	494	170	429	21	23.3	292	3,000	1.20	0.319	--	--
E-7	2/22/95	17.4	6.83	5,110	--	5,100	22	--	--	--	522	180	--	--	--	--	--	--	--	--	--
E-7	5/22/95	20.7	6.54	5,240	--	5,800	22.0	--	--	--	504	180	--	--	--	--	--	--	--	--	--
E-7	8/28/95	27.4	7.03	4,430	--	5,400	22.9	--	--	--	506	150	--	--	--	--	--	--	--	--	--
E-7	12/6/95	22.5	8.90	6,610	--	5,400	28.0	--	--	600.0	510	170	450.0	9.9	24.0	310.0	1,500	1.00	0.36	--	--
E-7	3/21/96	23.2	6.99	5,210	--	6,400	26	--	--	--	507	160	--	--	--	--	--	--	--	--	--
E-7	6/25/96	22.3	8.92	4,430	--	5,300	25	--	--	--	490	140	--	--	--	--	--	--	--	--	--
E-7	9/24/96	23.6	7.37	4,240	--	5,200	40	--	--	--	580	140	--	--	--	--	--	--	--	--	--
E-7	12/12/96	23.3	7.62	4,280	--	5,400	32	--	--	680	670	160	470	11	23	360	3,000	1.50	0.26	--	--
E-7	3/17/97	22.4	7.54	4,980	--	5,200	22	--	--	--	570	160	--	--	--	--	--	--	--	--	--
E-7	5/14/97	22.7	7.32	4,860	--	5,300	26	--	--	--	530	160	--	--	--	--	--	--	--	--	--
E-7	10/13/97	24.0	7.02	5,050	--	5,100	35	--	--	--	410	150	--	--	--	--	--	--	--	--	--
E-7	12/29/97	20.7	7.29	4,250	--	4,700	31	--	--	610	590	170	440	12	21	340	3,600	1.90	0.28	--	--
E-7	4/1/98	20.7	7.29	4,850	--	5,200	12	--	--	--	510	170	--	--	--	--	--	--	--	--	--
E-7	5/1/98	21.8	7.31	4,850	--	5,000	43	--	--	--	570	150	--	--	--	--	--	--	--	--	--
E-7	12/1/98	19.7	7.02	5,639	--	5,000	48	--	--	--	--	170	--	8	--	--	--	--	--	--	--
E-7	12/29/98	20.1	7.03	5,640	--	4,500	33	--	--	550	550	180	450	6	24	320	3,800	--	--	--	--
E-7	3/25/99	21.6	6.80	4,260	--	5,000	33	--	--	--	--	220	--	5.7	--	--	--	--	--	--	--
E-7	05/19/99	22.1	6.90	4,420	--	5,300	25	--	--	--	--	130	--	5.9	--	--	--	--	--	--	--
E-7	09/08/99	22.0	6.83	5,747	--	4,800	20	--	--	--	--	200	--	6.3	--	--	3,000	--	--	--	--
E-7	12/28/99	20.8	6.84	5,485	--	5,500	28	--	--	--	--	160	--	5.6	--	--	--	--	--	--	--
E-7	03/16/00	21.4	6.93	5,580	6.22	5,200	27	--	--	630	507	180	457	6.7	22	334	3,200	--	--	--	--
E-7	09/27/00	23.8	6.89	5,294	51.1	5,840	23.5	--	--	--	540	163	--	--	--	--	--	--	--	--	--
E-7	06/20/01	25.4	6.56	5,115	--	5,300	22.2	--	--	--	--	170	--	7.9	--	--	--	--	--	--	--
E-7	09/20/01	27.7	6.68	5,196	90.6	5,400	20.7	--	--	--	--	170	--	13.4	--	--	--	--	--	--	--
E-7	12/06/01	20.5	6.73	5,280	85	5,400	26.6	--	--	660	530	140	510	13.8	24	310	3,200	--	--	--	--
E-7	03/12/02	21.0	6.86	3,090	10.5	5,520	30	--	--	--	--	160	--	8.2	--	--	--	--	--	--	--
E-7	05/09/02	21.9	6.82	6,320	1.4	5,400	28	--	--	--	--	150	--	13	--	--	--	--	--	--	--
E-7	09/23/02	24.9	7.01	4,120	2.7	5,280	23	--	--	670	520	140	490	4.2	25	360	3,040	--	--	<0.0063	--
E-7	10/02/02	24.7	6.96	4,250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.050
E-7	12/11/02	20.2	6.68	5,640	2.0	5,520	23	--	--	650	540	150	550	11	26	360	3,040	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-7	01/20/03	20.8	6.85	5,570	1.7	5,400	21	--	--	--	--	140	--	6.6	--	--	--	--	--	--	--
E-7	04/16/03	22.0	6.75	5,600	2.6	5,460	27	--	--	--	--	150	--	7.9	--	--	--	--	--	--	--
E-7	08/25/03	23.0	6.64	5,010	2.9	5,440	28	--	--	--	--	140	--	14	--	--	--	--	--	--	--
E-7	10/22/03	22.6	6.76	5,640	2.5	5,040	30	--	--	670	540	140	460	5.5	25	320	3,100	--	--	<0.0063	<0.050
E-7	01/20/04	19.7	6.90	5,330	3.1	5,280	26	--	--	--	--	140	--	13	--	--	--	--	--	--	--
E-7	01/21/04	19.9	7.04	5,270	5.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-7	04/01/04	20.8	6.88	5,420	2.5	5,360	25	--	--	--	--	150	--	5.6	--	--	--	--	--	--	--
E-7	07/01/04	22.9	6.90	5,610	0.8	5,560	21	--	--	--	--	160	--	5.7	--	--	--	--	--	--	--
E-7	10/13/04	21.4	6.79	5,590	0.6	5,500	21	<20	680	680	580	150	500	1.9	25	350	3140	--	--	<0.0063	<0.050
E-7	11/30/04	21.8	6.84	5,260	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-7	03/08/05	22.1	6.89	1	0.21	5,500	24	--	--	--	--	150	--	6.9	--	--	--	--	--	--	--
E-7	05/04/05	23.53	6.70	5,420	1.3	5,500	21	--	--	--	--	74	--	5.0	--	--	--	--	--	--	--
E-7	08/23/05	27.27	6.81	5,580	1.1	5,300	21	--	--	--	--	150	--	4.2	--	--	--	--	--	<0.0063	--
E-7	11/01/05	23.87	6.75	5,530	--	5,300	23	--	--	650	600	150	550	6.5	27	370	3,000	--	--	<0.0063	<0.050
E-7	01/24/06	21.45	6.74	5,480	0.10	4,900	23	--	--	--	--	140	--	5.1	--	--	--	--	--	--	--
E-7	05/09/06	24.32	6.59	5,700	0.19	5,300	26	--	--	--	--	150	--	6.5	--	--	--	--	--	--	--
E-7	08/02/06	26.33	6.71	6,720	0.16	5,400	23	--	--	--	--	170	--	5.3	--	--	--	--	--	--	--
E-7	10/12/06	24.45	6.43	10,727	0.30	5,500	27	--	--	680	560	170	520	8.9	26	360	3,100	--	--	<0.0063	<0.050
E-7	02/07/07	21.57	6.72	5,063	0.48	5,300	24	--	--	--	--	140	--	8.3	--	--	--	--	--	--	--
E-9	5/22/95	23.4	7.44	5,260	--	3,900	50	--	--	--	37	64	--	--	--	--	--	--	--	--	--
E-9	8/28/95	25.3	7.32	4,670	--	4,300	47	--	--	--	274	67	--	--	--	--	--	--	--	--	--
E-9	12/6/95	22.5	7.23	4,780	--	3,900	81.0	--	--	1,900	22	72	590	0.40	15.0	430	1,500	1.60	0.200	--	--
E-9	3/21/96	23.9	7.36	5,000	--	3,900	66.0	--	--	--	17	68	--	--	--	--	--	--	--	--	--
E-9	6/25/96	24.8	7.47	4,000	--	4,000	62	--	--	--	19	62	--	--	--	--	--	--	--	--	--
E-9	9/24/96	23.8	7.28	4,020	--	8,300	57	--	--	--	17	68	--	--	--	--	--	--	--	--	--
E-9	12/12/96	22.2	7.28	5,430	--	4,100	75	--	--	2,000	30	66	930	ND	13	670	1,300	2.60	0.11	--	--
E-9	3/17/97	24.3	7.91	4,690	--	3,900	63	--	--	--	18	62	--	--	--	--	--	--	--	--	--
E-9	5/13/97	23.4	7.83	4,630	--	3,800	61	--	--	--	18	64	--	--	--	--	--	--	--	--	--
E-9	10/14/97	23.9	7.22	3,430	--	4,000	79	--	--	--	23	65	--	--	--	--	--	--	--	--	--
E-9	12/30/97	22.1	7.29	5,520	--	3,700	75	--	--	1,900	16	61	640	ND	12	440	1,600	2.00	0.08	--	--
E-9	4/1/98	21.8	7.71	4,690	--	4,100	72	--	--	--	18	67	--	--	--	--	--	--	--	--	--
E-9	5/1/98	23.0	7.67	5,060	--	3,800	82	--	--	--	21	66	--	--	--	--	--	--	--	--	--
E-9	12/1/98	18.4	7.34	5,260	--	3,700	99	--	--	--	--	56	--	ND	--	--	--	--	--	--	--
E-9	12/29/98	19.9	7.35	5,243	--	3,500	110	--	--	1,800	15	68	620	ND	13	440	1,700	--	--	--	--
E-9	3/24/99	22.5	7.30	3,970	--	3,800	56	--	--	--	--	78	--	ND	--	--	--	--	--	--	--
E-9	05/19/99	24.7	7.40	4,280	--	4,100	56	--	--	--	--	48	--	ND	--	--	--	--	--	--	--
E-9	09/08/99	28.9	7.25	4,926	--	3,200	40	--	--	--	--	70	--	0.3	--	--	1,900	--	--	--	--
E-9	12/28/99	19.9	7.20	5,193	--	4,000	70	--	--	--	--	75	--	0.2	--	--	--	--	--	--	--
E-9	03/16/00	23.1	7.78	5,049	15.5	3,900	56	--	--	1,800	14.7	73	601	ND	12	440	1,700	--	--	--	--
E-9	06/27/00	23.1	7.17	4,865	570	3,700	38	--	--	--	--	<200	--	0.1	--	--	--	--	--	--	--
E-9	09/27/00	24.7	7.42	4,740	458	4,110	52.7	--	--	--	15.5	62.4	--	--	--	--	--	--	--	--	--
E-9	12/05/00	22.2	7.24	5,102	68.3	4,100	23.0	--	--	1,900	--	65	580	ND	16	430	1,600	--	--	--	--
E-9	03/21/01	23.9	7.15	5,152	142	4,000	51.7	--	--	--	--	68	--	--	--	--	--	--	--	--	--
E-9	06/20/01	26.0	7.17	5,000	--	4,000	47.9	--	--	--	--	68	--	0.2	--	--	--	--	--	--	--
E-9	09/20/01	24.6	7.16	5,059	8.27	4,200	47	--	--	--	--	70	--	ND	--	--	--	--	--	--	--
E-9	12/06/01	20.5	7.62	4,710	9	4,000	48	--	--	2,300	26	76	580	0.25	13	380	1,600	--	--	--	--
E-9	03/12/02	20.5	6.92	5,810	18.5	4,420	89	--	--	--	--	60	--	0.28	--	--	--	--	--	--	--
E-9	05/09/02	22.5	7.20	6,440	2.3	4,240	51	--	--	--	--	61	--	ND	--	--	--	--	--	--	--
E-9	09/24/02	23.7	7.26	4,930	3.1	4,020	78	--	--	2,000	16	58	700	<0.05	13	450	1,620	--	--	<0.0063	<0.050



# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-9	10/10/02	23.6	7.35	4,910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-9	12/11/02	20.1	7.60	5,370	2.3	4,320	54	--	--	2,000	19	59	780	<0.05	15	480	1,650	--	--	--	--
E-9	01/20/03	21.8	7.29	5,210	1.4	4,200	77	--	--	--	--	58	--	<0.05	--	--	--	--	--	--	--
E-9	04/16/03	22.9	7.22	5,200	2.23	4,040	68	--	--	--	--	60	--	<0.5	--	--	--	--	--	--	--
E-9	08/25/03	22.9	7.08	4,800	2.57	4,100	100	--	--	--	--	60	--	<0.05	--	--	--	--	--	--	--
E-9	10/23/03	23.0	7.16	5,690	2	2,560	93	--	--	1,900	16	60	640	0.06	14	410	1,700	--	--	<0.0063	<0.050
E-9	01/20/04	21.0	7.27	5,170	2	4,060	83	--	--	--	--	67	--	<0.05	--	--	--	--	--	--	--
E-9	01/21/04	20.9	7.24	5,160	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-9	04/02/04	20.2	7.66	5,090	1.5	4,180	85	--	--	--	--	66	--	<0.05	--	--	--	--	--	--	--
E-9	07/02/04	23.8	6.98	4,740	0	4,160	39	--	--	--	--	65	--	<0.05	--	--	--	--	--	--	--
E-9	10/13/04	22.9	7.21	5,030	2.69	4,300	56	<20	1,900	1,900	16	67	670	<0.05	14	470	1,710	--	--	<0.0063	0.85
E-9	12/01/04	21.6	7.02	5,120	3.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-9	03/09/05	22.7	7.24	2,220	1.42	4,300	50	--	--	--	--	66	--	<0.10	--	--	--	--	--	--	--
E-9	05/05/05	21.29	7.19	4,640	1.3	3,900	51	--	--	--	--	69	--	<0.090	--	--	--	--	--	--	--
E-9	08/24/05	22.83	7.35	5,270	1.5	4,100	68	--	--	--	--	68	--	0.39	--	--	--	--	--	0.0075 (tr)	--
E-9	11/02/05	22.42	7.14	5,190	0.37	4,100	63	--	--	1,900	15	66	660	<0.060	13	440	1,700	--	--	<0.0063	--
E-9	01/25/06	22.05	7.14	5,170	1.03	3,800	73	--	--	--	--	67	--	<0.12	--	--	--	--	--	--	--
E-9	05/10/06	22.78	7.18	4,700	0.46	4,100	64	--	--	--	--	71	--	0.39	--	--	--	--	--	--	--
E-9	08/02/06	25.06	6.82	5,360	0.86	4,200	57	--	--	--	--	79	--	0.080	--	--	--	--	--	--	--
E-9	10/11/06	22.67	7.26	10,392	0.60	4,300	68	--	--	1,900	17	71	690	<0.090	14	470	1,800	--	--	<0.0063	0.91
E-9	02/06/07	22.36	7.24	4,869	0.88	4,200	54	--	--	--	--	70	--	<0.050	--	--	--	--	--	--	--
E-10	07/01/04	25.9	6.99	5,460	6.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-10	10/13/04	21.9	6.78	5,230	8.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-10	05/03/05	23.49	6.84	5,330	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-10	08/24/05	27.07	6.85	5,510	3.13	5,000	27	--	--	--	--	130	--	<0.10	--	--	--	--	--	<0.0063	--
E-10	11/02/05	24.05	6.79	5,400	--	5,000	28	--	--	760	360	130	530	0.10	54	400	2,900	--	--	--	--
E-10	01/25/06	21.70	6.77	5,370	1.2	5,100	28	--	--	--	--	180	--	<0.12	--	--	--	--	--	--	--
E-10 <sup>5</sup>	05/10/06	23.96	6.62	5,530	1.65	4,900	20	--	--	--	--	130	--	0.22	--	--	--	--	--	--	--
E-10	8/1/06, 8/2/06	25.65	--	4,850	2.80	5,100	25	--	--	--	--	150	--	0.27	--	--	--	--	--	--	--
E-10	10/11/06	23.40	6.71	9,371	1.4	5,200	29	--	--	740	400	130	540	<0.18	22	360	3,000	--	--	<0.0063	<0.050
E-10	02/07/07	22.70	6.77	5,048	1.9	5,000	24	--	--	--	--	120	--	1.4	--	--	--	--	--	--	--
E-3A <sup>®</sup>	12/06/01	20.5	7.52	7,670	45	6,200	15.2	--	--	--	--	260	--	109	--	--	--	--	--	--	--
E-3A	03/12/02	21.8	6.95	7,980	49	7,220	23	--	--	--	--	280	--	100	--	--	--	--	--	--	--
E-3A	05/09/02	22.8	7.00	8,230	24.7	6,780	21	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-3A	09/25/02	23.7	6.96	5,950	7	6,560	21	--	--	--	--	270	--	48	--	--	--	--	--	--	--
E-3A	12/12/02	21.8	6.85	6,210	2.5	6,560	20	--	--	--	--	270	--	110	--	--	--	--	--	--	--
E-3A	01/21/03	21.9	6.87	6,480	2.8	6,860	19	--	--	--	--	250	--	100	--	--	--	--	--	--	--
E-3A	04/15/03	22.3	6.98	6,610	10.93	6,580	21	--	--	--	--	250	--	91	--	--	--	--	--	--	--
E-28 <sup>®</sup>	08/26/03	23.1	6.89	6,320	0.81	6,400	25	--	--	--	--	270	--	110	--	--	--	--	--	--	--
E-28	10/22/03	23.6	6.8	6,300	2	6,500	27	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-28	01/20/04	20.7	6.97	6,520	0.6	6,360	20	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-28	04/01/04	23.9	7.02	6,550	4.08	6,560	20	--	--	--	--	300	--	110	--	--	--	--	--	--	--
E-28	07/02/04	23.6	6.75	6,520	7.61	6,580	18	--	--	--	--	290	--	120	--	--	--	--	--	--	--
E-28	10/14/04	22.9	6.67	6,700	2.8	6,920	18	--	--	--	--	280	--	120	--	--	--	--	--	0.0075 (tr)	--
E-28	03/10/05	24.4	6.92	0	2.1	6,600	19	--	--	--	--	270	--	110	--	--	--	--	--	0.0075 (tr)	--
E-28	05/06/05	22.03	6.91	6,590	6.10	6,500	18	--	--	--	--	280	--	110	--	--	--	--	--	--	--
E-28	08/25/05	23.54	7.02	6,790	5.18	6,700	20	--	--	--	--	270	--	120	--	--	--	--	--	0.010 (tr)	--
E-28	11/03/05	23.06	6.96	6,620	6.40	6,600	20	--	--	460	560	270	790	110	11	310	3,500	--	--	--	--

# ATTACHMENT A

Table 5  
General Minerals Analytical Results  
Blue Hills Disposal Facility

Well	Date Sample Collected	Temp (°C)	pH	EC <sup>1</sup> (umhos/cm)	Turb <sup>2</sup> (NTU)	TDS	TOC	Carbonate (C <sub>a</sub> CO <sub>3</sub> )	Bicarbonate (C <sub>a</sub> CO <sub>3</sub> )	Total Alkalinity (C <sub>a</sub> CO <sub>3</sub> )	Ca	Cl	Mg	Nitrate as Nitrogen	K	Na	SO <sub>4</sub>	B	Mn	Total Cyanide	Total Sulfide
E-28	01/26/06	21.92	6.96	6,610	0.95	6,800	18	--	--	--	--	270	--	110	--	--	--	--	--	--	--
E-28	05/12/06	23.14	6.88	6,010	1.00	6,700	19	--	--	--	--	260	--	120	--	--	--	--	--	--	--
E-28	08/04/06	23.06	6.99	6,450	3.57	6,900	21	--	--	--	--	250	--	120	--	--	--	--	--	--	--
E-28	10/12/06	23.22	6.98	12,796	2.5	6,500	27	--	--	490	560	280	770	130	11	290	3,600	--	--	<0.0063	<0.050
E-28	02/07/07	22.50	6.93	6,295	3.8	6,700	20	--	--	--	--	270	--	120	--	--	--	--	--	--	--

## Notes:

Except as noted results are in milligrams per liter (mg/L).

Water Analysis (General Minerals) and (Metals) analyzed by USEPA Methods 200.7, 300.0, 310.1, and 335.3

Cyanide analyzed by USEPA Method 335.5

Sulfide analyzed by USEPA Method 376.2

< or ND = Not detected at or above the method detection limit.

tr = trace

-- Not reported or analyzed for this analyte.

Φ = E-3A and E-28 are blind duplicate samples collected from monitoring well E-3.

<sup>1</sup> Unusual EC readings taken in March 2005 are due to a defective meter

<sup>2</sup> Nephelometric turbidity units

<sup>3</sup> Cl, nitrate/nitrate as N, TDS, total cyanide, non-volatile OC sampled on 8/25/05.

<sup>4</sup> Temperature, pH, EC, and turbidity measured on 5/11/06

<sup>5</sup> Temperature, pH, EC, and turbidity measured on 5/9/06

# ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
B-204B	06/12/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	08/11/88	ND	<1.0	n/a	<10	<15	n/a	<1.0	<2.0	n/a	ND
B-204B	09/29/88	ND	<0.1	n/a	0.1	<0.2	n/a	<0.05	0.06	n/a	ND
B-204B	01/05/89	ND	<0.02	n/a	<0.04	<0.08	n/a	<0.01	<0.01	n/a	ND
B-204B	06/29/89	ND	<0.04	n/a	<0.2	<0.2	n/a	<0.04	<0.04	n/a	ND
B-204B	01/18/90	ND	<0.04	n/a	<0.3	<0.8	n/a	<0.04	<0.08	n/a	ND
B-204B	04/04/90	ND	<0.05	n/a	<0.4	<4.0	n/a	<0.2	<0.4	n/a	ND
B-204B	08/27/90	ND	<0.04	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
B-204B	11/01/90	ND	<0.04	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
B-204B	10/23/91	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
B-204B	01/20/92	ND	180	n/a	n/a	n/a	n/a	0.4	n/a	n/a	ND
B-204B	07/16/92	ND	<0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-204B	8/18/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-204B	11/21/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-204B	2/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-204B	5/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-204B	8/28/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-204B	12/06/95	n/a	n/a	n/a	ND	ND	n/a	ND	ND	n/a	n/a
B-204B	3/21/96	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-204B	6/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-204B	9/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-204B	12/12/96	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	3/17/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	5/13/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	10/14/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	12/30/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	4/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	5/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-204B	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	3/25/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	09/08/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	12/28/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	03/16/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	06/28/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	09/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	12/05/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	03/21/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	06/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	12/06/01	ND	0.072	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	03/11/02	ND	0.12	ND	ND	ND	ND	ND	ND	n/a	ND
B-204B	05/08/02	ND	0.24	ND	ND	ND	ND	ND	ND	n/a	220
B-204B	09/23/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-204B	12/12/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	200
B-204B	01/20/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	370
B-204B	04/15/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	150
B-204B	08/25/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-204B	10/23/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-204B	01/20/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	400

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
B-204B	04/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-204B	07/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	380
B-204B	10/13/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	250
B-204B	03/09/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	110
B-204B	05/04/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	230
B-204B	08/23/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	98
B-204B	11/01/05	<0.58	0.073J	<0.030	<0.033	<0.20	<0.20	<0.043	<0.029	<3.6	170
B-204B	01/24/06	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	1,200
B-204B	05/10/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	300
B-204B	08/01/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	51
B-204B	10/10/06	<1.2	0.21	<0.060	<0.066	<0.40	<0.062	<0.086	<0.058	<7.2	<12
B-204B	02/07/07	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	<60
B-207	09/29/88	ND	<0.1	n/a	<0.1	<0.2	n/a	0.19	0.16	n/a	ND
B-207	01/05/89	ND	<0.02	n/a	<0.1	n/a	n/a	<0.01	<0.01	n/a	ND
B-207	06/29/89	ND	<0.04	n/a	0.6	<0.2	n/a	<0.04	<0.04	n/a	ND
B-207	01/18/90	ND	<0.04	n/a	<0.6	9.5	n/a	<0.04	<0.08	n/a	ND
B-207	04/04/90	ND	<0.05	n/a	<0.4	<4.0	n/a	<0.04	<0.4	n/a	ND
B-207	08/27/90	ND	<0.04	n/a	<0.16	<1.6	n/a	<0.16	<0.16	n/a	ND
B-207	11/01/90	ND	<0.4	n/a	<1.6	<4.0	n/a	<0.4	<0.4	n/a	ND
B-207	10/23/91	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
B-207	01/20/92	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
B-207	8/18/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-207	11/21/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
B-207	2/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	5/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	8/28/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	12/06/95	n/a	n/a	n/a	ND	ND	n/a	ND	ND	n/a	n/a
B-207	3/21/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	6/25/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	9/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
B-207	12/12/96	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	3/17/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	5/13/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	10/14/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	12/30/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	3/31/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	5/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
B-207	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	3/25/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	09/08/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	12/28/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	03/16/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	06/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	09/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	12/05/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	03/21/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	06/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCPP <sup>7</sup>
B-207	12/06/01	ND	0.072	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	03/11/02	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
B-207	05/08/02	ND	0.20	ND	ND	ND	ND	ND	ND	n/a	26
B-207	09/24/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	12/12/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	01/20/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	04/15/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	08/25/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	10/23/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	01/20/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	04/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	07/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	10/13/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
B-207	03/10/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	05/06/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	08/24/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	11/03/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.070	<0.029	<3.6	<6.0
B-207	01/26/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	05/10/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	08/03/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
B-207	10/12/06	<0.58	0.10	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	3,300
B-207	02/07/07	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	<60
E-2	03/30/88	ND	<0.04	n/a	<0.2	n/a	n/a	<0.2	<0.2	n/a	ND
E-2	06/29/88	ND	<0.05	n/a	<0.4	<0.8	n/a	<0.05	<0.1	n/a	ND
E-2	09/29/88	ND	<0.1	n/a	<0.1	<0.2	n/a	<0.05	<0.05	n/a	ND
E-2	01/05/89	ND	<0.02	n/a	<0.04	<0.08	n/a	<0.01	<0.01	n/a	ND
E-2	06/29/89	ND	<0.04	n/a	<0.2	<0.2	n/a	<0.04	<0.04	n/a	ND
E-2	01/18/90	ND	<0.04	n/a	<0.3	<0.8	n/a	<0.04	<0.08	n/a	ND
E-2	04/04/90	ND	<0.05	n/a	<0.4	<4.0	n/a	<0.2	<0.4	n/a	ND
E-2	08/27/90	ND	<0.04	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
E-2	11/01/90	ND	<0.4	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
E-2	10/23/91	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
E-2	01/20/92	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
E-2	07/16/92	ND	<0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-2	8/18/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-2	11/21/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-2	2/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	5/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	8/28/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	12/06/95	n/a	n/a	n/a	ND	ND	n/a	ND	ND	n/a	n/a
E-2	3/21/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	6/25/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	9/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-2	12/12/96	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	3/18/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	5/14/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	10/13/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	12/29/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	4/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-2	5/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCPP <sup>7</sup>
E-2	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	3/25/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	09/08/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	12/28/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	03/16/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	06/28/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	12/06/00	0.73	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	03/22/01	1.73	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	06/21/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	09/21/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	12/06/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	03/11/02	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	05/08/02	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-2	09/25/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	12/12/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	01/21/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	04/15/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	08/26/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	10/22/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	01/20/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	04/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	07/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	10/14/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-2	03/10/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	05/06/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	08/26/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	11/03/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	01/26/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	05/12/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	08/04/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	10/12/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-2	02/06/07	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	<60
E-3	03/30/88	ND	3.2	n/a	<0.08	n/a	n/a	<0.02	<0.02	n/a	ND
E-3	06/29/88	ND	10	n/a	<0.4	<0.8	n/a	<0.08	<0.2	n/a	ND
E-3	08/11/88	ND	<1.0	n/a	<10	<15	n/a	<1.0	<2.0	n/a	ND
E-3	09/29/88	ND	10	n/a	<0.1	<0.2	n/a	0.08	<0.06	n/a	ND
E-3	01/05/89	ND	16	n/a	<0.08	<0.08	n/a	<0.01	<0.01	n/a	ND
E-3	06/29/89	ND	30	n/a	<0.2	<0.2	n/a	<0.04	<0.04	n/a	ND
E-3	01/18/90	ND	52	n/a	<0.3	<0.8	n/a	<0.04	<0.08	n/a	ND
E-3	04/04/90	ND	65	n/a	<2.0	<5.0	n/a	<0.5	<0.5	n/a	ND
E-3	08/27/90	ND	<40	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
E-3	11/01/90	ND	120	n/a	<0.64	<1.6	n/a	<0.16	<0.16	n/a	ND
E-3	01/24/91	ND	200	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	04/17/91	ND	280	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	07/17/91	ND	260	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	10/23/91	ND	338	n/a	n/a	n/a	n/a	0.2	n/a	n/a	ND
E-3	01/20/92	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
E-3	04/13/92	ND	140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
E-3	07/16/92	ND	190	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	03/09/93	ND	240	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	05/24/94	ND	180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	8/18/94	ND	150 <sup>8</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	11/21/94	ND	299	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-3	2/22/95	ND	270 <sup>8</sup>	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	5/22/95	ND	250 <sup>8</sup>	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	8/28/95	ND	260 <sup>8</sup>	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	12/06/95	ND	n/a	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	3/21/96	ND	230	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	6/25/96	ND	110	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-3	9/24/96	ND	160	0.9	ND	ND	n/a	ND	ND	n/a	ND
E-3	12/12/96	ND	230	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	3/18/97	ND	110	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	5/14/97	ND	600	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	10/13/97	ND	660	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	12/29/97	ND	460	ND	2.71	ND	n/a	ND	ND	n/a	ND
E-3	4/1/98	ND	110	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	5/1/98	ND	150	ND	ND	ND	n/a	ND	ND	n/a	ND
E-3	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	3/25/99	ND	280	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	05/19/99	ND	280	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	09/08/99	ND	170	ND	ND	ND	ND	ND	ND	n/a	120,000
E-3	12/28/99	ND	320	ND	ND	ND	ND	ND	ND	n/a	20,000
E-3	03/16/00	ND	240	ND	ND	ND	ND	ND	ND	n/a	7,100
E-3	06/28/00	ND	170	ND	ND	ND	ND	ND	ND	n/a	<25000
E-3	09/29/00	0.64	180	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	12/06/00	0.68	270	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	03/22/01	ND	330	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	06/21/01	ND	280	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	09/21/01	ND	240	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	12/06/01	ND	290	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	03/12/02	ND	160	ND	ND	ND	ND	ND	ND	n/a	ND
E-3	05/09/02	ND	250	ND	ND	ND	ND	ND	ND	n/a	44,000
E-3	09/25/02	<1.0	5.8 <sup>9</sup>	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	2,100
E-3	12/12/02	<1.0	140	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	27,000
E-3	01/21/03	<1.0	220	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	44,000
E-3	04/15/03	<1.0	180	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	23,000
E-3	08/26/03	<1.0	170	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	35,000
E-3	10/22/03	<1.0	160	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	16,000
E-3	01/20/04	<1.0	170	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	17,000
E-3	04/01/04	<1.0	200	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	25,000
E-3	07/02/04	<1.0	220	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	54,000
E-3	10/14/04	<1.0	190	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	22,000
E-3	03/10/05	<5.8	28	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	4,600
E-3	05/06/05	<0.58	100	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	28,000
E-3	08/25/05	<0.58	100	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	7,500
E-3	11/03/05	<0.58	76	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	11,000
E-3	01/26/06	<5.8	110	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	24,000

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
E-3	05/12/06	<0.58	120	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	39,000
E-3	08/04/06	<0.58	100	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	47,000
E-3	10/12/06	<0.58	250	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	2,000
E-3	02/07/07	<58	120	<3.0	<3.3	<20	<3.1	<4.3	<2.9	<360	8,500
E-6	12/11/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	01/21/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	04/16/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	08/25/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	10/23/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	01/21/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	04/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	07/02/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	10/14/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-6	03/09/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	05/05/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	08/24/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	11/02/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	01/25/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	05/12/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	08/04/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	10/12/06	<0.58	0.19	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-6	02/07/07	--	<0.74	--	--	--	--	--	--	--	--
E-7	03/30/88	ND	<0.04	n/a	<0.2	<0.4	n/a	<0.04	<0.04	n/a	ND
E-7	06/29/88	ND	<0.04	n/a	<0.2	<0.4	n/a	<0.04	<0.04	n/a	ND
E-7	09/29/88	ND	<0.1	n/a	<0.1	<0.2	n/a	<0.05	<0.05	n/a	ND
E-7	01/05/89	ND	<0.06	n/a	<0.04	<0.08	n/a	<0.01	<0.01	n/a	ND
E-7	06/29/89	ND	<0.04	n/a	<0.2	<0.2	n/a	<0.04	<0.04	n/a	ND
E-7	01/18/90	ND	<0.04	n/a	0.5	<2.0	n/a	0.14	<0.08	n/a	ND
E-7	04/04/90	ND	<0.05	n/a	<0.4	<4.0	n/a	<0.2	<0.4	n/a	ND
E-7	08/27/90	ND	<0.04	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
E-7	11/01/90	ND	<0.04	n/a	<0.16	<0.4	n/a	<0.04	<0.04	n/a	ND
E-7	10/23/91	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
E-7	01/20/92	ND	<0.5	n/a	n/a	n/a	n/a	<0.2	n/a	n/a	ND
E-7	07/16/92	ND	<0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-7	05/24/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	8/18/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-7	11/21/94	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND
E-7	2/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-7	5/22/95	ND	ND	n/a	ND	ND	n/a	ND	0.3	n/a	ND
E-7	8/28/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-7	12/06/95	n/a	n/a	n/a	ND	ND	n/a	ND	ND	n/a	n/a
E-7	3/21/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-7	6/25/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-7	9/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-7	12/12/96	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	3/17/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	5/14/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	10/13/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND



## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
E-7	12/29/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	4/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	5/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-7	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	3/25/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	09/08/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	12/28/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	03/16/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	09/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	06/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	12/06/01	ND	0.16	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	03/12/02	ND	0.087	ND	ND	ND	ND	ND	ND	n/a	ND
E-7	05/09/02	ND	0.20	ND	ND	ND	ND	ND	ND	n/a	18
E-7	09/23/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	12/11/02	<1.0	0.08	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	01/20/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	04/16/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	08/25/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	10/22/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	01/20/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	04/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	07/01/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	10/14/04	<1.0	0.06 (tr)	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-7	03/08/05	<0.58	0.075 (tr)	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	12
E-7	05/04/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	08/23/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	11/01/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	01/24/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	05/09/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	08/02/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	10/12/06	<0.58	0.092	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-7	02/07/07	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	<60
E-9	5/22/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-9	8/28/95	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-9	12/06/95	n/a	n/a	n/a	ND	ND	n/a	ND	ND	n/a	n/a
E-9	3/21/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-9	6/25/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-9	9/24/96	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
E-9	12/12/96	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	3/17/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	10/14/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	12/30/97	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	4/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	5/1/98	ND	ND	ND	ND	ND	n/a	ND	ND	n/a	ND
E-9	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	12/29/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	3/25/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND

## ATTACHMENT A

Table 6  
Chlorophenoxy Herbicides Analytical Results  
(USEPA Method 8151)  
Blue Hills Disposal Facility

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCP <sup>7</sup>
E-9	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	09/08/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	12/28/99	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	03/16/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	06/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	09/27/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	12/05/00	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	03/21/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	06/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	09/20/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	12/06/01	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	03/12/02	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND
E-9	05/09/02	ND	0.57	ND	ND	ND	ND	ND	ND	n/a	81
E-9	09/24/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	10.2
E-9	12/11/02	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	01/20/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	04/14/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	08/25/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	10/23/03	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	01/20/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	04/02/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	07/02/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	10/14/04	<1.0	<0.020	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	<3.3
E-9	03/09/05	<0.58	0.68	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	130
E-9	05/05/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	08/24/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	11/02/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	01/25/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	05/10/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	08/02/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-9	10/11/06	<1.2	<0.088	<0.060	<0.066	<0.40	<0.062	<0.086	<0.058	<7.2	<12
E-9	02/06/07	<58	<4.4	<3.0	<3.3	<20	<3.1	<4.3	<2.9	<360	<600
E-10	08/24/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	11/02/05	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	01/25/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	05/10/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	08/02/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	10/11/06	<0.58	<0.044	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	<6.0
E-10	02/07/07	<5.8	<0.44	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	<60
X-DUP <sup>8</sup>	9/24/96	ND	160	0.8	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	12/12/96	ND	200	ND	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	3/18/97	ND	89	ND	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	5/14/97	ND	590	ND	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	10/13/97	ND	990	ND	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	12/29/97	ND	456	n/a	2.56	ND	n/a	ND	ND	n/a	ND
X-DUP	4/1/98	ND	120	n/a	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	5/1/98	ND	130	n/a	ND	ND	n/a	ND	ND	n/a	ND
X-DUP	12/1/98	ND	ND	ND	ND	ND	ND	ND	ND	n/a	ND

# ATTACHMENT A

**Table 6**  
**Chlorophenoxy Herbicides Analytical Results**  
**(USEPA Method 8151)**  
**Blue Hills Disposal Facility**

Well	Date	Dalapon	Dicamba	Dichloroprop	2,4-D <sup>1</sup>	2,4-DB <sup>2</sup>	Dinoseb <sup>3</sup>	Silvex <sup>4</sup>	2,4,5-T <sup>5</sup>	MCPA <sup>6</sup>	MCPP <sup>7</sup>
X-DUP	3/25/99	ND	290	ND	ND	ND	ND	ND	ND	n/a	ND
X-DUP	05/19/99	ND	290	ND	ND	ND	ND	ND	ND	n/a	ND
X-DUP	09/08/99	ND	170	ND	ND	ND	ND	ND	ND	n/a	120000
X-DUP	12/28/99	ND	310	ND	ND	ND	ND	ND	ND	n/a	19000
X-DUP	03/16/00	ND	220	ND	ND	ND	ND	ND	ND	n/a	5100
X-DUP	06/28/00	ND	190	ND	ND	ND	ND	ND	ND	n/a	<25000
X-DUP	09/29/00	0.58	200	ND	ND	ND	ND	ND	ND	n/a	ND
X-DUP	12/05/00	0.7	280	ND	ND	ND	ND	ND	ND	n/a	ND
X-DUP	03/22/01	ND	350	ND	ND	ND	ND	ND	ND	n/a	ND
X-DUP	06/21/01	ND	280	ND	ND	ND	ND	ND	ND	n/a	ND
E-3A <sup>Φ</sup>	09/21/01	ND	250	ND	ND	ND	ND	ND	ND	n/a	ND
E-3A	12/06/01	ND	330	ND	ND	ND	ND	ND	ND	n/a	ND
E-3A	03/12/02	ND	160	ND	ND	ND	ND	ND	ND	n/a	ND
E-3A	05/09/02	ND	190	ND	ND	ND	ND	ND	ND	n/a	30,000
E-3A	09/25/02	<1.0	6.2 <sup>Ψ</sup>	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	2,100
E-3A	12/12/02	<1.0	120	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	24,000
E-3A	01/21/03	<1.0	210	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	49,000
E-3A	04/15/03	<1.0	150	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	19,000
E-28 <sup>Φ</sup>	08/26/03	<1.0	150	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	33,000
E-28	10/22/03	<1.0	160	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	15,000
E-28	01/20/04	<1.0	280	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	34,000
E-28	04/01/04	<1.0	200	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	27,000
E-28	07/02/04	<1.0	200	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	54,000
E-28	10/14/04	<1.0	190	<0.12	<0.16	<0.23	<0.052	<0.024	<0.032	<2.8	23,000
E-28	03/10/05	<5.8	47	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	9,500
E-28	05/06/05	<0.58	91	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	17,000
E-28	08/25/25	<0.58	84	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	6,600
E-28	11/03/05	<0.58	86	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	15,000
E-28	01/26/06	<5.8	92	<0.30	<0.33	<2.0	<0.31	<0.43	<0.29	<36	20,000
E-28	05/12/06	<0.58	100	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	45,000
E-28	08/04/06	<0.58	150	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	78,000
E-28	10/12/06	<0.58	230	<0.030	<0.033	<0.20	<0.031	<0.043	<0.029	<3.6	5,200
E-28	02/07/07	<290	140	<15	<16	<100	<16	<22	<14	<1800	470

## Notes:

Results are in micrograms per liter (µg/L) unless otherwise noted

Analysis by USEPA Method 8151

<sup>1</sup>2,4-D (2,4-Dichlorophenoxy acid)

<sup>2</sup>2,4-DB (2,4-Dichlorophenoxybutyric acid)

<sup>3</sup>Dinoseb (DNBP; 2-sec-Butyl-4-6-dinitrophenol)

<sup>4</sup>Silvex (2,4,5-TP)

<sup>5</sup>2,4,5-T (2,4,-5-Trichlorophenoxyacetic acid)

<sup>6</sup>MCPA = 2(2-Methyl-4-Chlorophenoxy) Propionic Acid

<sup>7</sup>MCPA = 4-chloro-2-methylphenoxy) acetic acid

<sup>8</sup> Result is from analysis of a diluted sample. Dilution factor: 100 times.

<sup>Ψ</sup> Results are from an undiluted sample. The actual sample concentrations were above the high quantitation range of the analytical method. A diluted sample was not run because of holding time limitations.

Φ = X-DUP, E-3A and E-28 are blind duplicate samples collected from monitoring well E-3.

# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
B-204B	06/12/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	09/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/05/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	06/29/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/18/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	04/04/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	08/27/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	11/01/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/20/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	<0.04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	07/16/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	8/18/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	11/21/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	2/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	6/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	3/17/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	5/13/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	10/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/30/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	4/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	09/27/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	0.014	<0.0070	<0.0084	<0.013	<0.12
B-204B	09/23/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-204B	12/12/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-204B	10/23/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-204B	10/13/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-204B	11/01/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
B-204B	10/10/06	<0.0018	<0.0019	<0.0013	<0.0011	<0.0016	<0.76	<0.0011	<0.0013	<0.00094	<0.0014	<0.0017	<0.0016	<0.0020	<0.0013	<0.0017	<0.0016	<0.00040	<0.0048	<0.84
B-207	01/23/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	<0.05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	06/12/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	0.04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	09/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	06/29/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	01/18/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
B-207	04/04/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	08/27/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	10/23/91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	<0.04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	8/18/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	11/21/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	2/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	6/25/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	3/17/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	5/13/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	10/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/30/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	3/31/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	09/27/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
B-207	09/24/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-207	12/12/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-207	10/23/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-207	10/13/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
B-207	11/03/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
B-207	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-2	06/12/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	03/30/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	06/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	09/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	01/05/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	06/29/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	01/18/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	04/04/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	08/27/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	11/01/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	10/23/91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	—	<0.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	01/20/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
E-2	07/16/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	8/18/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	11/21/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	2/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	6/25/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	3/18/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	5/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	10/13/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	12/29/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	4/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	09/21/01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-2	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
E-2	12/12/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-2	10/22/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-2	10/14/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-2	11/03/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-2	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-3	06/12/86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	03/30/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	06/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	09/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/05/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	06/29/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/16/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	04/04/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	08/27/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/01/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	10/23/91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	<0.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/20/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	07/16/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	8/18/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/21/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
E-3	2/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	6/25/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	3/18/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	5/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	10/13/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	12/29/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	4/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	09/29/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
E-3	12/12/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-3	10/22/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-3	10/14/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-3	11/03/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-3	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-6	12/11/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-6	10/23/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-6	10/14/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-6	11/02/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-6	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-7	03/30/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	06/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	09/29/88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	01/05/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	06/29/89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	01/18/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	04/04/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	08/27/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	11/01/90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01	<0.01	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	10/23/91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	0.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	01/20/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	07/16/92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
E-7	8/18/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	11/21/94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	2/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	6/25/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	3/17/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	5/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	10/13/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	12/29/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	4/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	09/27/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-7	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
E-7	09/23/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-7	12/11/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-7	10/22/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-7	10/14/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-7	11/01/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-7	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-9	5/22/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	8/28/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	12/6-7/95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	6/25/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	9/24/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	12/12/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	3/17/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	10/14/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	12/30/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	4/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	5/1/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	12/29/98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-9	09/27/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a



# ATTACHMENT A

Table 7  
Organochlorine Pesticides Analytical Results  
(USEPA Method 8081)  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
E-9	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
E-9	09/24/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-9	12/11/02	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-9	10/23/03	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-9	10/14/04	<0.0015	<0.0008	<0.0011	<0.0008	<0.0009	<0.42	<0.0011	<0.0009	<0.0017	<0.0014	<0.0011	<0.0012	<0.0011	<0.0015	<0.0034	<0.0006	<0.0009	<0.0009	<0.36
E-9	11/02/05	<0.00092	<0.00094	0.20	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	0.060	<0.42
E-9	10/11/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-10	11/02/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-10	10/11/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
X-DUP <sup>Φ</sup>	3/21/96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
X-DUP	3/18/97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
X-DUP	03/16/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
X-DUP	09/29/00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ND	ND	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3A <sup>Φ</sup>	12/06/01	<0.0073	<0.011	<0.010	<0.0020	<0.0078	<0.0071	<0.0069	<0.0078	<0.0070	<0.0066	<0.027	<0.012	<0.014	<0.0061	<0.0055	<0.0070	<0.0084	<0.013	<0.12
E-28 <sup>Φ</sup>	11/03/05	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42
E-28 <sup>Φ</sup>	10/12/06	<0.00092	<0.00094	<0.00063	<0.00054	<0.00081	<0.38	<0.00057	<0.00063	<0.00047	<0.00068	<0.00085	<0.00082	<0.0010	<0.00067	<0.00087	<0.00079	<0.00020	<0.0024	<0.42

## Notes:

Results are from analysis of samples by USEPA Method 8081.

Units are reported in micrograms per liter (ug/L).

< and ND indicates that this analyte was not detected at or above the method detection limit.

Φ = X-DUP and E-3A and E-28 are blind duplicate samples collected from monitoring well E-3.

# ATTACHMENT A

**Table 8**  
**Polychlorinated Biphenyls,**  
**Dioxins, and Furans Analytical Results**  
**Blue Hills Disposal Facility**

Well	Date Sample Collected	PCBs <sup>1</sup>	Dioxins <sup>2</sup>	Furans <sup>2</sup>
B-204B	12/29/98	ND <sup>3</sup>	n/a	n/a
B-204B	03/16/00	ND	n/a	n/a
B-204B	09/27/00	ND	n/a	n/a
B-204B	09/23/02	<0.032	ND	ND
B-204B	12/12/02	<0.032	n/a	n/a
B-204B	10/23/03	<0.032	ND	ND
B-204B	10/13/04	<0.1	ND	ND
B-204B	11/01/05	<0.10	ND	ND
B-204B	10/10/06	<0.20	ND	ND
B-207	12/29/98	ND	n/a	n/a
B-207	03/16/00	ND	n/a	n/a
B-207	09/27/00	ND	n/a	n/a
B-207	09/24/02	<0.032	ND	ND
B-207	12/12/02	<0.032	n/a	n/a
B-207	10/23/03	<0.032	ND	ND
B-207	10/13/04	<0.1	ND	ND
B-207	11/03/05	<0.10	ND	ND
B-207	10/12/06	<0.10	0.0260 ng/L <sup>4</sup>	ND
E-2	12/29/98	ND	n/a	n/a
E-2	03/16/00	ND	n/a	n/a
E-2	09/21/01	ND	n/a	n/a
E-2	12/06/01	ND	n/a	n/a
E-2	12/12/02	<0.032	n/a	n/a
E-2	10/22/03	<0.032	2.3 ppt <sup>3</sup>	ND
E-2	01/20/04	n/a	ND	n/a
E-2	03/04/04	n/a	ND	n/a
E-2	10/14/04	<0.1	ND	ND
E-2	11/03/05	<0.10	ND	ND
E-2	10/12/06	<0.10	ND	ND
E-3	12/29/98	ND	n/a	n/a
E-3	03/16/00	ND	n/a	n/a
E-3	09/29/00	ND	n/a	n/a
E-3	12/12/02	<0.032	n/a	n/a
E-3	10/22/03	<0.032	ND	ND
E-3	10/14/04	<0.1	ND	ND
E-3	11/03/05	<0.10	n/a	n/a
E-3	10/12/06	<0.10	n/a	n/a
E-6	12/11/02	<0.032	n/a	n/a
E-6	10/23/03	<0.032	ND	ND
E-6	10/14/04	<0.1	ND	ND
E-6	11/02/05	<0.10	ND	ND
E-6	10/12/06	<0.10	ND	ND
E-7	12/29/98	ND	n/a	n/a
E-7	03/16/00	ND	n/a	n/a
E-7	09/27/00	ND	n/a	n/a
E-7	09/23/02	<0.032	ND	ND
E-7	12/11/02	<0.032	n/a	n/a
E-7	10/22/03	<0.032	ND	ND
E-7	10/14/04	<0.1	ND	ND
E-7	11/01/05	<0.10	ND	ND
E-7	10/12/06	<0.10	ND	ND
E-9	12/29/98	ND	n/a	n/a
E-9	03/16/00	ND	n/a	n/a
E-9	09/27/00	ND	n/a	n/a
E-9	09/24/02	<0.032	n/a	n/a
E-9	10/10/02	n/a	ND	ND
E-9	12/11/02	<0.032	n/a	n/a
E-9	10/23/03	<0.032	ND	ND
E-9	10/14/04	<0.1	ND	ND
E-9	11/02/05	<0.10	ND	ND
E-9	10/11/06	<0.10	ND	ND
E-10	11/02/05	<0.10	n/a	n/a
E-10	10/11/06	<0.10	n/a	n/a
X-DUP <sup>6</sup>	03/16/00	ND	n/a	n/a
X-DUP	09/29/00	ND	n/a	n/a
E-28 <sup>6</sup>	11/03/05	<0.10	n/a	n/a
E-28 <sup>6</sup>	10/12/06	<0.10	n/a	n/a

NOTES:

ATTACHMENT A

<sup>1</sup> PCBs analyzed by USEPA Method 8080/8082. Results in micrograms per liter.

<sup>2</sup>Dioxins and Furans are analyzed by USEPA Method 8280A. The results are in parts per trillion (ppt) or nano-grams per liter.

<sup>3</sup>The detected dioxin species is octa-chlorinated-dibenzo-para-dioxin. This particular dioxin species has an MDL of 0.5 ppt and a PQL of 50 ppt.

< or ND = not detected at or above the method detection limit.

n/a = not analyzed for this constituent.

Φ = X-DUP and E-28 are blind duplicate samples collected from monitoring well E-3.

## SAP Tables, revised Table 9 VOCs

Page 1 of 6

5/1/2007

## ATTACHMENT A

Table 9  
Volatile Organic Compounds Analytical Results  
Blue Hills Disposal Facility

Well	Date	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane (Methyl Bromide)	n-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane (Ethyl Chloride)	Chloroform (Trichloromethane)	Chloromethane (Methyl Chloride)	Dibromochloromethane	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)	Dibromomethane (Methylene Bromide)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane (Freon 12)	1,1-Dichloroethane (Ethylidene chloride)	1,2-Dichloroethane (Ethylene dichloride)	1,1-Dichloroethene (1,1-Dichloroethylene)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene
E-3	01/21/03	<0.059	<0.12	<0.057	<0.21	<0.16	-	<0.078	<0.085	<0.17	<0.074	<0.16	<0.090	<0.50	<0.13	<0.14	<0.23	<0.14	<0.13	<0.19	<0.064	<0.067	<0.11	<0.039	<0.087	<0.12	<0.12	<0.085	<0.042	<0.078
E-3	04/15/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	0.62	<0.11	<0.049	<0.058	<0.12	<0.46	<0.13	<0.28	<0.089	0.14	0.23	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-3	08/26/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	0.24	<0.11	<0.049	<0.056	<0.12	<0.46	<0.13	<0.28	<0.089	<0.081	<0.069	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-3	10/22/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	0.22	<0.11	<0.048	<0.056	<0.12	<0.46	<0.13	<0.28	<0.089	<0.081	<0.069	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-3	01/20/04	<0.039	<0.14	<0.062	<0.087	<0.060	-	<0.085	<0.059	<0.10	<0.042	<0.044	<0.13	<0.60	<0.076	<0.073	<0.061	<0.046	<0.080	<0.15	<0.077	<0.12	<0.067	<0.062	<0.083	<0.12	<0.083	<0.051	<0.064	<0.062
E-3	04/01/04	<0.12	<0.13	<0.12	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	<0.11	<0.683	<0.083	<0.14	<0.077	<0.14	<0.14	<0.20	<0.13	<0.25	<0.11	<0.19	<0.19	<0.16	<0.18	<0.14	<0.18	<0.13
E-3	07/02/04	<0.12	<0.13	<0.12	<0.33	<0.21	-	<0.15	0.38 (tr)	<0.17	<0.11	<0.17	<0.11	<0.683	<0.083	<0.14	<0.077	0.54	0.53	<0.20	<0.13	<0.25	<0.11	<0.19	<0.19	<0.16	<0.18	<0.14	<0.18	<0.13
E-3	10/14/04	<0.057	<0.14	<0.092	<0.050	<0.20	-	<0.094	0.43 (tr)	<0.14	<0.050	<0.098	<0.14	<0.39	<0.11	<0.065	<0.050	0.990 (tr)	0.16 (tr)	<0.11	<0.060	<0.080	<0.050	<0.070	<0.094	<0.14	<0.078	<0.099	<0.074	<0.056
E-3	03/10/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	0.55	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	0.16 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	05/05/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	0.54	<0.17	<0.11	<0.17	0.14 (tr)	<0.69	<0.16	<0.26	<0.16	<0.14	0.19 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	08/23/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	0.95	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	0.39 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	11/03/05	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	0.43 (tr)	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	01/26/06	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.13	<0.15	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	0.15 (tr)	0.45 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	05/12/06	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	0.36 (tr)	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	0.15 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	08/04/06	<0.14	<0.15	<0.11	<0.22	<0.31	<0.12	<0.14	0.21 (tr)	<0.12	<0.076	<0.14	<0.12	<0.37	<0.22	<0.36	<0.11	<0.073	0.19 (tr)	<0.17	<0.10	<0.15	<0.15	<0.20	<0.18	<0.069	<0.12	<0.11	<0.11	<0.075
E-3	10/12/06	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	0.59	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-3	02/07/07	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	0.46 (tr)	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	0.17 (tr)	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	12/11/02	<0.18	<0.17	<0.18	<0.18	<0.40	-	<0.21	<0.21	<0.17	<0.16	<0.19	<0.14	<0.43	<0.18	<0.18	<0.17	<0.16	<0.18	<0.19	<0.18	<0.17	<0.17	<0.18	<0.14	<0.18	<0.096	<0.021	<0.15	<0.15
E-6	01/21/03	<0.059	<0.12	<0.057	<0.21	<0.16	-	<0.078	<0.085	<0.17	<0.074	<0.16	<0.090	<0.50	<0.13	<0.14	<0.23	<0.14	<0.13	<0.19	<0.064	<0.067	<0.11	<0.039	<0.087	<0.12	<0.12	<0.085	<0.042	<0.078
E-6	04/16/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	<0.049	<0.11	<0.049	<0.058	<0.12	<0.46	<0.13	<0.28	<0.089	<0.081	<0.069	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-6	08/25/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	<0.049	<0.11	<0.049	<0.056	<0.12	<0.46	<0.13	<0.28	<0.089	<0.081	<0.069	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-6	10/23/03	<0.035	<0.21	<0.087	<0.13	<0.37	-	<0.057	<0.049	<0.11	<0.048	<0.056	<0.12	<0.46	<0.13	<0.28	<0.089	<0.081	<0.069	<0.042	<0.061	<0.12	<0.054	<0.070	<0.083	<0.13	<0.094	<0.14	<0.056	<0.12
E-6	01/21/04	<0.13	<0.14	<0.16	<0.16	<0.12	-	<0.11	<0.12	<0.16	<0.11	<0.13	<0.10	<0.30	<0.16	<0.26	<0.16	<0.096	<0.14	<0.098	<0.17	<0.13	<0.15	<0.15	<0.14	<0.11	<0.17	<0.17	<0.14	<0.16
E-6	04/01/04	<0.12	<0.13	<0.12	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	<0.11	<0.683	<0.083	<0.14	<0.077	<0.14	<0.14	<0.20	<0.13	<0.25	<0.11	<0.19	<0.19	<0.16	<0.18	<0.14	<0.18	<0.13
E-6	07/02/04	<0.12	<0.13	<0.12	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	<0.11	<0.683	<0.083	<0.14	<0.077	<0.14	<0.14	<0.20	<0.13	<0.25	<0.11	<0.19	<0.19	<0.16	<0.18	<0.14	<0.18	<0.13
E-6	10/14/04	<0.057	<0.14	<0.092	<0.050	<0.20	-	<0.094	<0.11	<0.14	<0.050	<0.098	<0.14	<0.39	<0.11	<0.065	<0.050	<0.087	<0.051	<0.11	<0.060	<0.080	<0.050	<0.070	<0.094	<0.14	<0.078	<0.099	<0.074	<0.056
E-6	03/09/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	05/05/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	0.22 (tr)	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	08/24/05	<0.13	<0.14	<0.16	<0.33	<0.21	-	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	11/02/05	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	01/25/06	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	05/12/06	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	08/04/06	<0.14	<0.15	<0.11	<0.22	<0.31	<0.12	<0.14	<0.12	<0.12	<0.076	<0.14	<0.12	<0.37	<0.22	<0.36	<0.11	<0.073	<0.099	<0.17	<0.10	<0.15	<0.15	<0.20	<0.18	<0.069	<0.12	<0.11	<0.11	<0.075
E-6	10/12/06	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15	<0.12	<0.17	<0.11	<0.17	<0.14	<0.69	<0.16	<0.26	<0.16	<0.14	<0.14	<0.20	<0.17	<0.25	<0.15	<0.19	<0.19	<0.16	<0.18	<0.17	<0.18	<0.16
E-6	02/06/07	<0.13	<0.14	<0.16	<0.33	<0.21	<0.13	<0.15																						

## SAP Tables, revised Table 9 VOCs

Page 3 of 6

6/1/2007

## ATTACHMENT A

Table 9  
Volatile Organic Compounds Analytical Results  
Blue Hills Disposal Facility

Well	Date	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	Methylene Chloride (Dichloromethane)	Naphthalene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (TCA)	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	1,2,3-Trichloropropene	Vinyl Chloride	Total Xylenes	Acetone	Acetonitrile	Acrolein	Acrylonitrile	Allyl Chloride (3-chloropropene)	Carbon Disulfide	Chloroprene	trans-1,4-Dichloro-2-butene	Ethyl methacrylate	2-Hexanone	Methacrylonitrile	Methyl Ethyl Ketone (2-Butanone)	Methyl Iodide	Methyl isobutyl ketone (4-Methyl-2-pentanone)	Methyl Methacrylate	Propionitrile	Vinyl Acetate	Phenols (USEPA 420.2)
B-204B	09/23/02	<0.058	0.28	<0.26	<0.19	<0.036	<0.049	<0.073	<0.061	1.8	0.48	0.27	<0.084	<0.34	<0.12	<0.18	<0.050	1.3	29	<2.4	<1.6	<0.54	<0.41	<0.40	<0.34	<0.087	n/a	<3.1	<0.50	3.1	<0.99	<1.5	<0.36	<3.0	<3.5	<5.0
B-204B	12/12/02	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.11	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<1.0	17	<3.8	<3.6	<0.25	<0.19	<0.11	<0.11	<1.1	n/a	<2.2	<1.0	6.0	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
B-204B	01/20/03	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.11	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<0.35	<4.7	<3.8	<3.6	<0.25	<0.19	<0.33	<0.11	<1.1	<0.72	<2.2	<1.0	<1.7	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
B-204B	04/15/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
B-204B	08/25/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
B-204B	10/23/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	12.00	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0
B-204B	01/20/04	<0.068	<0.063	<0.096	<0.13	<0.066	<0.049	<0.13	<0.11	<0.099	<0.048	<0.069	<0.15	<0.066	<0.061	<0.33	<0.11	<0.15	<1.5	<0.75	<2.4	<0.52	<0.21	<0.15	<0.27	<0.66	<0.40	<0.58	<1.1	<0.71	<0.21	<0.66	<0.68	<3.6	<1.6	n/a
B-204B	04/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-204B	07/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-204B	10/13/04	<0.14	<0.12	<0.23	2.1	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-204B	03/09/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
B-204B	05/04/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
B-204B	08/24/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
B-204B	11/01/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
B-204B	01/24/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
B-204B	05/10/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
B-204B	08/01/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
B-204B	10/10/06	<0.15	<0.094	<0.28	<0.16	<0.16	<0.089	<0.12	<0.14	<0.18	<0.12	<0.27	<0.14	<0.18	<0.13	<0.42	<0.16	<0.31	7.5(tr)	<2.2	<2.2	<1.5	<0.47	<0.44	<0.49	<0.80	<1.7	<3.3	<3.4	<0.53	<3.6	<1.6	<4.3	<4.7	<5.0	
B-204B	02/07/07	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
B-207	09/24/02	<0.058	0.12	<0.26	<0.19	<0.036	<0.049	<0.073	<0.061	0.69	0.18	<0.057	<0.084	<0.34	<0.12	<0.18	<0.050	0.45	3.4	<2.4	<1.6	<0.54	<0.41	<0.40	<0.34	<0.087	n/a	<3.1	<0.50	<0.63	<0.99	<1.5	<0.36	<3.0	<3.5	7.10
B-207	12/12/02	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.11	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<1.0	<4.7	<3.8	<3.6	<0.25	<0.19	<0.11	<0.11	<1.1	n/a	<2.2	<1.0	<1.7	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
B-207	01/20/03	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.11	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<0.35	<4.7	<3.8	<3.6	<0.25	<0.19	<0.11	<0.11	<1.1	<0.72	<2.2	<1.0	<1.7	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
B-207	04/15/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
B-207	08/25/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
B-207	10/23/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0
B-207	01/20/04	<0.068	<0.063	<0.096	<0.13	<0.066	<0.049	<0.13	<0.11	<0.099	<0.048	<0.069	<0.15	<0.066	<0.061	<0.33	<0.11	<0.15	<1.5	<0.75	<2.4	<0.52	<0.21	<0.15	<0.27	<0.66	<0.40	<0.58	<1.1	<0.71	<0.21	<0.66	<0.68	<3.6	<1.6	n/a
B-207	04/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-207	07/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-207	10/13/04	<0.14	<0.12	<0.23	2.0	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
B-207	03/10/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	&																	

## ATTACHMENT A

Table 9  
Volatile Organic Compounds Analytical Results  
Blue Hills Disposal Facility

Well	Date	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	Methylens Chloride (Dichloromethane)	Naphthalene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (TCA)	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	1,2,3-Trichloropropene	Vinyl Chloride	Total Xylenes	Acetone	Acetonitrile	Acrolein	Acrylonitrile	Allyl Chloride (3-chloropropene)	Carbon Disulfide	Chloroprene	trans-1,4-Dichloro-2-butene	Ethyl methacrylate	2-Hexanone	Methacrylonitrile	Methyl Ethyl Ketone (2-Butanone)	Methyl Iodide	Methyl Isobutyl ketone (4-Methyl-2-pentanone)	Methyl Methacrylate	Propionitrile	Vinyl Acetate	Phenols (USEPA 420.2)
E-3	01/21/03	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.49	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<0.35	<4.7	<3.8	<3.6	<0.25	<0.19	<0.11	<0.11	<1.1	<0.72	<2.2	<1.0	<1.7	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
E-3	04/15/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-3	08/26/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0
E-3	10/22/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-3	01/20/04	<0.068	<0.063	<0.096	<0.13	<0.066	<0.049	<0.13	<0.11	<0.099	<0.048	<0.069	<0.15	<0.066	<0.061	<0.33	<0.11	<0.15	<1.8	<0.75	<2.4	<0.52	<0.21	<0.15	<0.27	<0.86	<0.40	<0.58	<1.1	<0.71	<0.21	<0.66	<0.68	<3.6	<1.6	n/a
E-3	04/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-3	07/02/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-3	10/14/04	<0.080	<0.077	<0.12	0.55 (tr)	<0.098	<0.12	<0.18	<0.23	<0.13	<0.083	<0.081	<0.094	<0.075	<0.060	<0.46	<0.11	<0.16	<3.0	<1.4	<2.7	<0.59	<0.23	<0.20	<0.20	<2.1	<0.48	<2.9	<2.2	<0.85	<0.20	<0.80	<0.64	<2.3	<2.4	n/a
E-3	03/10/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-3	05/06/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-3	08/25/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-3	11/03/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-3	01/26/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-3	05/12/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-3	08/04/06	<0.15	<0.094	<0.28	<0.16	<0.11	<0.089	<0.12	<0.14	<0.18	<0.12	<0.27	<0.14	<0.18	<0.13	<0.42	<0.16	<0.31	<5.9	<2.3	<2.2	<1.3	<0.47	<0.44	<0.49	<0.80	<1.8	<7.8	<3.3	<3.4	<0.53	<3.6	<1.8	<4.3	<4.7	n/a
E-3	10/12/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-3	02/07/07	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-6	12/11/02	<0.13	<0.18	<0.16	<0.11	<0.17	<0.21	<0.21	<0.26	<0.17	<0.18	<0.16	<0.18	<0.075	<0.21	<0.31	<0.24	<0.62	<6.9	<3.7	<3.6	<1.5	<0.68	<0.68	<0.73	<1.5	<0.72	<2.1	<3.4	<3.9	<0.22	<3.2	<1.8	<4.6	<7.1	n/a
E-6	01/21/03	<0.12	<0.12	<0.21	<0.95	<0.13	<0.11	<0.11	<0.19	<0.11	<0.098	<0.053	<0.19	<0.075	<0.15	<0.25	<0.22	<0.35	<4.7	<3.8	<3.6	<0.25	<0.19	<0.11	<0.11	<1.1	<0.72	<2.2	<1.0	<1.7	<0.15	<1.0	<0.41	<4.3	<3.2	n/a
E-6	04/16/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	9.9	<0.56	<6.0	<0.66	<0.27	1.2	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-6	08/25/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-6	10/23/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0
E-6	01/21/04	<0.13	<0.14	<0.14	<0.13	<0.16	<0.14	<0.13	<0.16	<0.12	<0.12	<0.12	<0.12	<0.12	<0.094	<0.22	<0.13	<0.40	<3.9	<7.2	<3.6	<0.66	<0.28	<0.26	<0.31	<0.63	<0.65	<3.8	<1.5	<1.4	<0.17	<1.7	<0.89	<2.5	<1.2	n/a
E-6	04/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-6	07/02/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-6	10/14/04	<0.080	<0.077	<0.12	0.44 (tr)	<0.098	<0.12	<0.18	<0.23	<0.13	<0.083	<0.081	<0.094	<0.075	<0.060	<0.46	<0.11	<0.16	<3.0	<1.4	<2.7	<0.59	<0.23	<0.20	<0.20	<2.1	<0.48	<2.9	<2.2	<0.85	<0.20	<0.80	<0.64	<2.3	<2.4	n/a
E-6	03/09/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-6	05/05/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	0.57(tr)	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-6	08/24/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-6	11/02/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<										



## ATTACHMENT A

Table 9  
Volatile Organic Compounds Analytical Results  
Blue Hills Disposal Facility

Well	Date	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	Methylens Chloride (Dichloromethane)	Naphthalene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)	Toluene	1,1,1-Trichloroethane (TCA)	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	1,2,3-Trichloropropene	Vinyl Chloride	Total Xylenes	Acetone	Acetonitrile	Acrolein	Acrylonitrile	Allyl Chloride (3-chloropropene)	Carbon Disulfide	Chloroprene	trans-1,4-Dichloro-2-butene	Ethyl methacrylate	Z-Hexanone	Methacrylonitrile	Methyl Ethyl Ketone (2-Butanone)	Methyl Iodide	Methyl isobutyl ketone (4-Methyl-2-pentanone)	Methyl Methacrylate	Propionitrile	Vinyl Acetate	Phenols (USEPA 420.2)
E-9	04/14/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	0.33	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-9	08/25/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	4.80	<0.56	<6.0	<0.66	<0.27	0.81	<0.30	<0.61	<0.24	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a	
E-9	10/23/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0	
E-9	01/20/04	<0.068	<0.063	<0.096	<0.13	<0.066	<0.049	<0.13	<0.11	<0.099	<0.048	<0.069	<0.15	<0.066	<0.061	<0.33	<0.11	<0.15	<1.6	<0.75	<2.4	<0.52	<0.21	0.17 (tr)	<0.27	<0.86	<0.40	<0.58	<1.1	0.99 (tr)	<0.21	<0.66	<0.68	<3.6	<1.6	n/a
E-9	04/02/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-9	07/02/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-9	10/14/04	<0.080	<0.077	<0.12	0.54 (tr)	<0.098	<0.12	<0.18	<0.23	<0.13	<0.083	<0.081	<0.094	<0.075	<0.060	<0.46	<0.11	<0.16	<3.0	<1.4	<2.7	<0.59	<0.23	<0.20	<0.20	<2.1	<0.48	<2.9	<2.2	<0.85	<0.20	<0.80	<0.64	<2.3	<2.4	n/a
E-9	03/09/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-9	05/05/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-9	08/24/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.4	<3.8	<2.4	n/a	
E-9	11/02/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	<5.0
E-9	01/25/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-9	05/10/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-9	08/02/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-9	10/11/06	<0.15	<0.094	<0.28	<0.16	<0.11	<0.089	<0.12	<0.14	<0.18	<0.12	<0.27	<0.14	<0.18	<0.13	<0.42	<0.16	<0.31	<3.5	<2.3	<2.2	<1.3	<0.47	0.45(tr)	<0.49	<0.80	<1.8	<1.7	<3.3	<3.4	<0.53	<3.6	<1.8	<4.3	<4.7	<5.0
E-9	02/06/07	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.31	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	08/24/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	11/02/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	05/09/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	05/10/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	08/02/06	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-10	10/11/06	<0.15	<0.094	<0.28	<0.16	<0.11	<0.089	<0.12	<0.14	<0.18	<0.12	<0.27	<0.14	<0.18	<0.13	<0.42	<0.16	<0.31	<3.5	<2.3	<2.2	<1.3	<0.47	0.44	<0.49	<0.80	<1.8	<1.7	<3.3	<3.4	<0.53	<3.6	<1.8	<4.3	<4.7	n/a
E-10	02/07/07	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.15	<0.18	<0.20	<0.46	<0.16	<0.31	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38	<0.31	<2.1	<1.4	<4.0	<2.2	<1.9	<0.36	<1.7	<1.4	<3.8	<2.4	n/a
E-28 <sup>a</sup>	08/26/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	<0.19	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	n/a
E-28	10/22/03	<0.11	<0.030	<0.11	<0.12	<0.13	<0.068	<0.070	<0.078	<0.049	<0.042	<0.072	<0.13	<0.092	<0.050	<0.44	<0.092	<0.14	6.90	<0.56	<6.0	<0.66	<0.27	<0.28	<0.30	<0.61	<0.24	<1.1	<1.1	<1.1	<0.76	<0.59	<0.55	<3.3	<1.8	<5.0
E-28	01/20/04	<0.068	<0.063	<0.096	<0.13	<0.066	<0.049	<0.13	<0.11	<0.099	<0.048	<0.069	<0.15	<0.066	<0.061	<0.33	<0.11	<0.15	<1.6	<0.75	<2.4	<0.52	<0.21	<0.15	<0.27	<0.86	<0.40	<0.58	<1.1	<0.71	<0.21	<0.66	<0.68	<3.6	<1.6	n/a
E-28	04/01/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-28	07/02/04	<0.14	<0.12	<0.23	<0.43	<0.93	<0.16	<0.12	<0.23	<0.15	<0.15	<0.16	<0.099	<0.18	<0.20	<0.40	<0.16	<0.36	<6.2	<2.1	<0.18	<0.15	<0.40	<0.37	<0.29	<1.8	<1.4	<4.0	<2.2	<1.9	<0.36	<1.3	<1.4	<3.8	<1.6	n/a
E-28	10/14/04	<0.080	<0.077	<0.12	0.76 (tr)	<0.098	<0.12	<0.18	<0.23	<0.13	<0.083	<0.081	<0.094	<0.075	<0.060	<0.46	<0.11	<0.16	<3.0	<1.4	<2.7	<0.59	<0.23	<0.20	<0.20	<2.1	<0.48	<2.9	<2.2	<0.85	<0.20	<0.80	<0.64	<2.3	<2.4	n/a
E-28	03/10/05	<0.14	<0.14	<0.23	<0.44	<0.12	<0.16	<0.18	<0.23	<0.15	<0.15	<0.16	<0.50	<0.18	<0.20	<0.46	<0.16	<0.40	<6.2	<7.2	<1.8	<1.5	<0.40	<0.38												

## ATTACHMENT A

Table 10  
Metals Analytical Results (mg/L)  
Blue Hills Disposal Facility

Well	Date Sample Collected	Aluminum (Al)	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Tin (Sn)	Vanadium (V)	Zinc (Zn)
B-204B	9/29/88	140	<0.2	0.0290	1.5000	<0.01	0.0300	0.3500	0.1100	0.1600	220.00	0.0200	<3.00	<0.0005	<0.1	0.4300	<0.02	<0.005	<0.5	<0.2	0.5200	0.5400
B-204B	1/5/89	<0.1	<0.2	<0.005	0.0300	<0.01	<0.01	<0.02	<0.02	<0.02	0.1300	<0.002	0.2000	<0.0005	<0.1	0.0900	<0.02	<0.005	<0.3	<0.1	<0.02	<0.02
B-204B	6/29/89	119	<0.05	0.0320	1.5400	<0.005	0.0020	0.3500	0.1200	0.1600	171.00	0.0600	--	0.0018	<0.01	0.5000	0.0050	<0.01	<0.005	<0.01	0.4900	0.5400
B-204B	11/1/90	13.4	<0.05	0.0060	0.2030	<0.005	<0.003	0.1680	0.0200	0.0200	20.60	0.0080	--	<0.0005	<0.01	0.1700	0.0050	<0.01	<0.005	<0.05	0.0600	0.0900
B-204B	10/23/91	53.4	<0.05	0.0120	0.6350	<0.005	<0.003	0.1570	0.0480	0.0810	85.10	0.0070	--	0.0006	<0.01	0.2340	<0.005	<0.01	<0.005	0.0750	0.2120	0.2550
B-204B	3/9/93	--	<0.05	0.0500	2.3000	0.0060	0.0040	0.5380	0.2080	0.2420	--	0.0820	--	0.0025	0.0120	0.8080	<0.01	<0.01	<0.005	--	0.6400	0.7970
B-204B	5/24/94	--	<0.05	0.0170	0.5730	<0.005	<0.003	0.3820	0.0500	0.0650	--	0.0220	--	<0.0005	<0.01	0.3510	<0.005	<0.01	<0.005	--	0.2330	0.2080
B-204B	8/18/94	101.0	ND <sup>3</sup>	0.0330	1.2000	<0.005	<0.01	0.3970	0.1240	0.1480	149.00	0.0460	--	0.0011	0.0230	0.5730	ND	ND	ND	0.1370	0.4090	0.4910
B-204B	11/21/94	0.97	ND	ND	0.0440	<0.005	ND	ND	0.0110	ND	1.30	ND	--	ND	ND	0.0820	0.0050	ND	ND	ND	0.0160	0.3630
B-204B	12/6/95	1.40	ND	ND	0.0400	<0.005	ND	ND	ND	ND	2.00	ND	--	ND	ND	0.0600	ND	ND	ND	<0.9	ND	0.0800
B-204B	12/12/96	0.46	0.09	ND	0.03	<0.005	ND	ND	ND	0.02	0.49	ND	--	ND	ND	0.05	ND	ND	ND	ND	ND	0.04
B-204B	12/29/97	1.4	0.15	ND	0.04	<0.005	ND	0.02	ND	0.01	1.5	ND	--	ND	ND	0.06	ND	ND	ND	ND	0.08	0.09
B-204B	05/19/99	--	--	<0.005	--	--	--	--	ND	--	--	ND	--	ND	--	--	--	ND	--	--	--	0.05
B-204B	09/23/02	--	<0.050	0.0046	0.030	<0.0017	<0.010	<0.020	<0.006	<0.0064	--	0.00045	--	0.000036	--	0.050	<0.060	<0.020	<0.070	<0.00015	0.010	<0.007
B-204B	10/23/03	--	<0.024	0.200	0.029	<0.0015	<0.0048	<0.0024	<0.011	<0.0032	--	0.066	--	<0.00012	--	0.039	<0.029	<0.0018	0.076	<0.012	0.100	<0.018
B-204B	10/13/04	--	0.120	<0.0039	0.034	<0.0013	<0.014	0.010	0.0075	0.0050	--	0.00049	--	<0.000050	--	0.042	0.0039	<0.0043	<0.00023	<0.00043	0.078	<0.012
B-204B	11/01/05	--	0.014	--	0.060	<0.0015	<0.0018	0.0049	0.0080	--	--	--	--	--	--	0.056	<0.0068	<0.0020	<0.013	<0.0026	0.0057	--
B-204B	10/10/06	--	0.0088(tr)	<0.018	0.029	<0.00077	<0.0032	0.021	0.0058(tr)	0.0022(tr)	--	<0.0045	--	0.000042(tr)	--	0.049	<0.0097	<0.0014	<0.016	<0.0041	<0.0025	0.035(tr)
B-204C	9/29/88	24.0	<0.2	0.0060	0.2400	<0.01	<0.01	0.0600	<0.02	0.0300	35.00	0.0050	<3.00	<0.0005	<0.1	0.0600	0.6500	<0.02	<0.5	<0.2	0.0900	0.1200
B-204C	1/6/89	54.0	<0.02	0.0200	0.4500	<0.01	<0.01	0.1700	0.0300	0.0500	84.00	<0.002	0.3000	<0.0005	<0.1	0.1600	0.5700	<0.02	<0.03	<0.01	0.2200	0.2100
B-204C	6/29/89	17.4	<0.05	0.0060	0.1800	<0.005	0.0020	0.0400	<0.01	0.0200	22.70	0.0090	--	<0.0005	<0.01	0.0600	0.5300	<0.01	<0.005	<0.01	0.0600	0.0600
B-204C	11/1/90	18.0	<0.05	0.0130	0.2490	<0.005	<0.003	0.0500	0.0200	0.0300	34.10	0.0100	--	<0.0005	<0.01	0.0800	0.4300	<0.01	<0.005	<0.05	0.0700	0.0900
B-204C	3/10/93	--	<0.05	<0.005	0.1450	<0.005	0.0040	0.0260	0.0110	0.0220	--	0.0070	--	<0.0005	<0.01	0.0420	0.6540	<0.01	<0.005	--	0.0480	0.0680
B-204C	11/21/94	31	<0.1	0.0080	0.2970	ND	ND	0.1160	<0.04	0.0500	43.10	0.0180	--	ND	ND	0.1070	0.3710	ND	ND	<0.1	0.1150	0.1530
B-204C	12/6-7/95	79	ND	0.0210	0.8300	ND	ND	0.2500	0.0600	0.1200	120.00	0.0240	--	ND	ND	0.2600	0.2400	ND	ND	<1.0	0.2800	0.5500
B-204C	12/12/96	6.1	0.10	ND	0.10	ND	ND	0.02	ND	0.04	12	ND	--	ND	0.02	0.06	0.14	ND	ND	ND	0.02	0.08
B-207	11/1/90	3.84	<0.05	<0.005	0.0510	<0.005	0.0080	0.0120	0.0100	0.0200	9.64	0.7840	--	<0.0005	<0.01	0.0400	1.1000	<0.01	<0.005	<0.05	0.0200	0.0400
B-207	5/24/94	--	<0.05	0.0250	0.7130	<0.005	<0.003	0.3740	0.1200	0.1430	--	0.0400	--	<0.0005	<0.01	0.2630	0.8940	<0.01	<0.005	--	0.7120	0.4950
B-207	8/18/94	135	ND	0.0260	0.7950	ND	<0.01	0.4200	0.1400	0.1630	262.0000	0.0390	--	ND	ND	0.2950	0.9620	ND	ND	0.1070	0.7430	0.6370
B-207	11/21/94	75.8	ND	0.0130	0.4990	ND	ND	0.2290	0.0730	0.0990	144.0000	0.0240	--	ND	ND	0.1630	0.7660	ND	ND	<0.1	0.4340	0.3520
B-207	12/6/95	6.0	ND	ND	0.0500	ND	ND	0.0200	ND	0.0100	9.8000	ND	--	ND	ND	ND	1.1000	ND	ND	<0.8	0.0200	0.0400
B-207	12/12/96	8.5	0.08	ND	0.06	ND	ND	0.03	ND	0.02	ND	ND	--	ND	ND	0.02	1.0	ND	ND	ND	0.04	0.07
B-207	12/29/97	18	0.12	0.005	0.11	ND	ND	0.07	0.03	0.02	32	0.004	--	ND	ND	0.05	1.0	ND	ND	ND	0.14	0.06
B-207	05/19/99	--	--	ND	--	--	--	ND	--	--	--	ND	--	ND	--	--	--	ND	--	--	--	0.03
B-207	09/24/02	--	<0.050	0.037	0.02	<0.0017	<0.010	<0.020	<0.006	0.0096	--	<0.00018	--	0.000047	--	0.02	1.00	<0.020	<0.070	<0.00015	<0.009	0.015
B-207	10/23/03	--	<0.024	0.290	0.022	<0.0015	<0.0048	<0.0024	<0.011	0.0045	--	0.070	--	<0.00012	--	0.013	0.840	<0.0018	0.110	<0.012	0.098	<0.018
B-207	01/20/04	--	--	0.110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	01/21/04	--	--	0.110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-207	10/13/04	--	0.170	0.054	0.017	<0.0013	<0.014	0.0035	<0.0038	0.0050	--	0.00023	--	<0.000050	--	0.0065	1.100	<0.0043	<0.00023	<0.00043	0.085	<0.012
B-207	11/03/05	--	<0.013	--	0.016	<0.0015	0.0028	<0.0020	<0.0062	--	--	--	--	--	--	0.019	0.850	<0.0020	<0.013	<0.0026	0.0047	--
B-207	10/12/06	--	<0.0071	<0.018	0.019	<0.00077	<0.0032	0.015	0.0062(tr)	0.0051(tr)	--	0.024(tr)	--	<0.000026	--	0.023	1.000	<0.0014	<0.016	<0.0041	0.0030(tr)	0.030(tr)
E-2	8/26/87	--	--	--	--	--	--	--	--	0.0500	--	0.3300	--	--	--	--	--	--	--	--	--	--
E-2	3/30/88	4.00	<0.02	<0.005	0.0400	<0.01	<0.01	<0.02	<0.02	<0.02	5.6000	<0.1	<3.00	<0.0005	<0.01	<0.02	0.8400	<0.02	<0.5	<0.1	<0.02	0.2600
E-2	6/29/88	1.20	<0.05	0.0160	0.0250	<0.001	<0.005	<0.01	<0.01	0.0090	1.7000	<0.05	0.7000	<0.0002	0.0400	0.0400	0.5000	<0.005	<0.4	<0.03	0.0400	0.1000
E-2	9/29/88	1.40	<0.2	0.0140	0.0200	<0.01	<0.01	<0.02	<0.02	<0.02	1.7000	<0.002	<3.00	<0.0005	<0.1	<0.02	0.6100	<0.02	<0.5	<0.2	0.0200	0.0600
E-2	1/6/89	0.57	<0.2	<0.005	<0.02	<0.01	0.0200	<0.02	<0.02	<0.02	1.0000	0.0040	0.4500	<0.0005	<0.1	0.0300	0.4100	<0.02	<0.3	0.3200	<0.02	0.0800
E-2	6/29/89	1.21	<0.05	0.0140	0.0300	<0.005	0.0020	<0.005	<0.01	0.0100	1.3800	0.0040	--	<0.0005	0.0400	<0.02	0.3200	<0.01	<0.005	<0.01	0.0100	0.0800
E-2	11/2/90	0.56	<0.05	0.0150	0.0250	<0.005	0.0060	<0.005	<0.01	<0.01	0.8400	<0.002	--	<0.0005	0.0300	<0.02	<0.005	<0.01	<0.005	<0.05	<0.01	0.0600
E-2	10/24/91	1.04	<0.05	0.0260	0.0320	<0.005	<0.003	<0.005	<0.01	<0.01	1.4500	<0.002	--	<0.0005	0.0340	<0.02	<0.005	<0.01	<0.005	0.0870	0.0140	0.0780
E-2	3/10/93	--	<0.05	0.0480	0.0250	<0.005	0.0030	<0.01	<0.01	<0.01	--	0.0030	--	<0.0005	0.0420	<0.02	<0.01	<0.01	<0.005	--	0.0140	0.0560
E-2	5/24/94	--	<0.5	0.0510	0.0180	<0.002	<0.005	<0.005	<0.005	<0.025	--	<0.02	--	<0.0002	0.0100	<0.02	<0.002	<0.01	<0.2	--	<0.005	0.0340

# ATTACHMENT A

Table 10  
Metals Analytical Results (mg/L)  
Blue Hills Disposal Facility

Well	Date Sample Collected	Aluminum (Al)	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Tin (Sn)	Vanadium (V)	Zinc (Zn)
E-2	8/18/94	0.17	ND	0.0430	0.0210	ND	<0.01	<0.01	ND	ND	0.2640	ND	--	ND	0.0480	ND	ND	ND	ND	0.0860	0.0170	0.0370
E-2	11/21/94	0.05	ND	0.0290	0.0190	ND	ND	<0.01	ND	ND	0.1620	ND	--	ND	0.0290	ND	ND	ND	ND	ND	ND	0.0330
E-2	12/6/95	0.47	ND	0.0190	ND	ND	ND	*<0.02	ND	ND	0.3500	<0.005	--	ND	ND	ND	4.2000	ND	ND	<2.0	ND	0.1000
E-2	12/12/96	ND	0.08	ND	0.02	ND	ND	ND	ND	0.02	0.08	ND	--	ND	ND	ND	0.52	ND	ND	ND	ND	0.16
E-2	12/29/97	0.56	ND	ND	0.01	ND	ND	0.01	ND	0.01	0.28	<0.005	--	ND	0.01	ND	3.3	ND	ND	ND	0.12	ND
E-2	05/19/99	--	--	ND	--	--	--	--	ND	--	--	ND	--	ND	--	--	--	ND	--	--	--	ND
E-2	10/22/03	--	0.025	0.220	0.016	<0.0015	<0.0048	0.018	<0.011	<0.0032	--	0.097	--	<0.00012	--	0.009	3.9	<0.0018	0.150	<0.012	0.190	<0.018
E-2	01/20/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.029	--
E-2	01/21/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.036	--
E-2	10/14/04	--	0.16 (tr)	0.180 (tr)	0.014 (tr)	<0.0013	<0.014	0.034 (tr)	<0.0038	0.016 (tr)	--	0.00073 (tr)	--	<0.000050	--	<0.0055	4.4	<0.0043	0.0018 (tr)	<0.00085	0.019	<0.012
E-2	11/03/05	--	<0.013	--	0.013	<0.0015	<0.0018	<0.0020	<0.0062	--	--	--	--	--	--	0.011	2.8	<0.0020	<0.013	<0.0026	0.160	--
E-2	10/12/06	--	0.077(tr)	<0.090	0.012(tr)	<0.0038	<0.016	0.030(tr)	<0.0060	<0.0065	--	<0.022	--	<0.000026	--	0.022(tr)	3.7	<0.0070	<0.080	0.052(tr)	0.034(tr)	0.011(tr)
E-3	8/26/87	--	--	--	--	--	--	--	--	0.0400	--	0.2900	--	--	--	--	--	--	--	--	--	--
E-3	3/30/88	2.3000	<0.2	<0.005	0.0200	<0.01	<0.01	<0.02	<0.02	<0.02	3.3000	<0.1	<3.00	<0.0005	<0.1	<0.02	0.6900	0.0400	<0.5	<0.1	<0.02	0.0800
E-3	6/29/88	1.0000	<0.05	0.0060	0.0190	<0.001	<0.005	<0.01	<0.01	0.0100	1.2000	<0.05	0.2000	<0.0002	0.0200	<0.04	0.3300	<0.005	<0.4	<0.03	0.0300	0.0600
E-3	9/28/88	2.9000	<0.2	0.0060	0.0200	<0.01	<0.01	<0.02	<0.02	<0.02	3.3000	<0.002	<3.00	<0.0005	<0.1	<0.02	0.6500	0.0200	<0.5	<0.2	0.0300	0.0500
E-3	1/6/89	0.6600	<0.2	<0.005	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	0.8500	0.0030	0.1600	<0.0005	<0.1	<0.02	0.6800	<0.02	<0.3	<0.1	<0.02	0.0300
E-3	6/29/89	1.0700	<0.05	<0.005	0.0200	<0.005	0.0040	<0.005	<0.01	0.0100	1.2300	0.0020	--	<0.0005	0.0200	<0.02	0.6300	<0.01	<0.005	<0.01	0.0100	0.0200
E-3	11/1/90	1.1000	<0.05	<0.005	0.0230	<0.005	<0.003	<0.005	<0.01	<0.01	1.3400	<0.002	--	<0.0005	0.0100	<0.02	0.6120	<0.01	<0.005	<0.05	0.0100	0.0200
E-3	10/23/91	1.00	<0.05	<0.005	0.0200	<0.005	<0.003	<0.005	<0.01	<0.01	1.3100	<0.002	--	<0.0005	0.0110	<0.02	0.5840	<0.01	<0.005	<0.05	0.0110	0.0310
E-3	3/10/93	--	<0.05	<0.005	0.0160	<0.005	0.0040	<0.01	<0.01	<0.01	--	<0.002	--	<0.0005	0.0110	<0.02	0.5620	<0.01	<0.005	--	0.0100	0.0120
E-3	5/24/94	--	<0.5	0.0060	0.0130	<0.002	<0.005	<0.005	<0.005	<0.025	--	<0.02	--	<0.0002	<0.1	<0.02	0.5140	<0.01	<0.2	--	0.0080	<0.02
E-3	8/18/94	0.72	<0.05	<0.005	0.0140	<0.005	<0.01	ND	ND	ND	0.6430	ND	--	ND	0.0280	ND	0.4730	ND	ND	0.0750	0.0190	0.0130
E-3	11/21/94	0.28	ND	ND	0.0150	ND	ND	<0.01	ND	ND	0.3350	ND	--	ND	ND	ND	0.3990	ND	ND	<0.1	ND	ND
E-3	12/6/95	2.00	ND	ND	ND	ND	ND	ND	ND	0.0200	1.7000	ND	--	ND	ND	ND	0.5400	ND	ND	<1.0	ND	0.0400
E-3	12/12/96	ND	ND	ND	0.01	ND	ND	ND	ND	0.02	ND	ND	--	ND	ND	ND	0.47	ND	ND	ND	ND	0.02
E-3	12/29/97	0.40	0.10	ND	0.01	ND	ND	ND	ND	ND	0.16	<0.005	--	ND	ND	ND	0.46	ND	ND	ND	0.08	0.11
E-3	05/19/99	--	--	ND	--	--	--	--	ND	--	--	--	--	ND	--	--	--	ND	--	--	--	ND
E-3	10/22/03	--	<0.024	0.220	0.016	<0.0015	<0.0048	<0.0024	<0.011	<0.0032	--	0.084	--	<0.00012	--	<0.0018	0.350	<0.0018	0.120	<0.012	0.120	<0.018
E-3	01/20/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.082	--
E-3	01/21/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.120	--
E-3	10/14/04	--	0.140 (tr)	0.079 (tr)	0.012 (tr)	<0.0013	<0.014	0.010 (tr)	<0.0038	0.012 (tr)	--	0.00074 (tr)	--	<0.000050	--	<0.0055	0.750	<0.0043	0.00066	<0.00017	0.072	<0.012
E-3	11/03/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-3	10/12/06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-6	10/23/03	--	<0.024	0.094	0.060	<0.0015	0.0055	0.0025	<0.011	<0.0032	--	0.034	--	<0.00012	--	0.028	<0.029	<0.0018	<0.029	<0.012	0.058	<0.018
E-6	10/14/04	--	0.022 (tr)	0.0059	0.060	<0.00025	<0.0027	0.0075 (tr)	0.00057 (tr)	0.00080 (tr)	--	0.000058 (tr)	--	<0.000050	--	0.027	0.0030	<0.00086	<0.000045	<0.00085	0.0066 (tr)	<0.00044
E-6	11/02/05	--	0.033 (tr)	--	0.041	<0.0015	0.0025 (tr)	<0.0020	<0.0062	--	--	--	--	--	--	0.012	<0.0068	<0.0020	<0.013	0.011 (tr)	0.0037 (tr)	--
E-6	10/12/06	--	0.027(tr)	<0.018	0.045	<0.00077	<0.0032	0.0096(tr)	0.0012(tr)	<0.0013	--	<0.0045	--	<0.000026	--	0.014	<0.0097	<0.0014	<0.016	0.012(tr)	0.0073(tr)	0.012(tr)
E-7	8/26/87	--	--	--	--	--	--	--	--	0.0300	--	0.2200	--	--	--	--	--	--	--	--	--	--
E-7	3/30/88	<0.1	<0.2	<0.005	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	0.1000	<3.00	<0.0005	<0.1	0.0200	0.0130	<0.02	<0.5	<0.1	<0.02	<0.02
E-7	6/29/88	2.6000	<0.05	0.0030	0.0380	<0.001	<0.005	0.0800	<0.01	0.0150	6.5000	<0.05	0.6400	<0.0002	0.0500	0.1000	0.0060	<0.005	<0.4	<0.03	0.020	0.0800
E-7	9/28/88	0.1000	<0.2	<0.005	0.0200	<0.01	<0.01	<0.02	<0.02	<0.02	0.0900	<0.002	<3.00	<0.0005	<0.1	0.0400	0.0140	<0.02	<0.5	<0.2	<0.02	<0.02
E-7	1/6/89	<0.1	<0.2	<0.005	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	0.1100	<0.002	0.5500	<0.0005	<0.1	0.0800	0.0800	<0.02	<0.3	<0.1	<0.02	<0.02
E-7	6/29/89	0.1600	<0.05	<0.005	0.0300	<0.005	<0.002	<0.005	<0.01	0.0100	0.1600	<0.002	--	<0.0005	0.5400	0.0500	0.2100	<0.01	<0.005	<0.01	<0.01	<0.01
E-7	11/2/90	2.0900	<0.05	<0.005	0.0350	<0.005	0.0030	0.0200	<0.01	<0.01	3.6600	<0.002	--	<0.0005	0.0400	0.0800	0.0330	<0.01	<0.005	<0.05	<0.01	0.0200
E-7	10/23/91	0.07	<0.05	<0.005	0.0240	<0.005	0.0030	<0.005	<0.01	<0.01	0.0630	<0.004	--	<0.0005	0.0590	0.0630	0.0330	<0.01	<0.005	0.0820	<0.01	<0.01
E-7	3/10/93	--	<0.05	<0.005	0.0230	<0.005	0.0040	<0.01	<0.01	<0.01	--	<0.002	--	<0.0005	0.0520	0.0540	0.0440	<0.01	<0.005	--	<0.01	<0.01
E-7	5/24/94	--	<0.05	<0.005	0.0200	<0.005	<0.003	<0.01	<0.01	<0.01	--	<0.002	--	<0.0005	0.0590	0.0570	0.0400	<0.01	<0.005	--	<0.01	<0.01
E-7	8/18/94	<0.05	<0.05	<0.005	0.0200	<0.005	<0.01	ND	ND	ND	0.1310	ND	--	ND	0.0640	0.0650	0.0270	ND	ND	ND	ND	ND
E-7	11/21/94	0.08	ND	ND	0.0220	ND	ND	ND	ND	ND	0.1100	ND	--	ND	0.0480	0.0400	0.0290	ND	ND	ND	ND	ND
E-7	12/6/95	0.24	ND	ND	ND	ND	ND	ND	ND	ND	2.1000	ND	--	ND	0.0400	0.0700	0.0640	ND	ND	<0.9	ND	ND

# ATTACHMENT A

Table 10  
Metals Analytical Results (mg/L)  
Blue Hills Disposal Facility

Well	Date Sample Collected	Aluminum (Al)	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Beryllium (Be)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Lithium (Li)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Thallium (Tl)	Tin (Sn)	Vanadium (V)	Zinc (Zn)
E-7	12/12/96	ND	0.07	ND	0.02	ND	ND	ND	ND	0.04	ND	ND	--	ND	0.04	0.06	ND	ND	ND	ND	ND	0.09
E-7	12/29/97	0.36	0.15	ND	0.02	ND	ND	ND	ND	ND	0.09	ND	--	ND	0.04	0.07	0.13	ND	ND	ND	0.07	0.04
E-7	05/19/99	--	--	ND	--	--	--	--	ND	--	--	ND	--	ND	--	--	--	ND	--	--	--	ND
E-7	09/23/02	--	<0.050	0.0152	0.020	<0.0017	<0.010	<0.020	<0.006	0.0045	--	<0.00018	--	0.00010	--	0.070	0.400	<0.020	<0.070	<0.00015	<0.009	0.011
E-7	12/11/02	--	--	0.029	--	--	--	--	--	--	--	--	--	--	--	--	0.400	--	--	--	--	--
E-7	10/22/03	--	0.033	0.210	0.022	<0.0015	<0.0048	<0.0024	<0.011	<0.0032	--	0.073	--	<0.00012	--	0.078	0.410	<0.0018	0.088	<0.012	0.082	<0.018
E-7	01/20/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.068	--
E-7	01/21/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.110	--
E-7	10/14/04	--	0.049 (tr)	0.025	0.019	<0.00025	<0.0027	0.011 (tr)	0.00080 (tr)	0.0021 (tr)	--	0.00043 (tr)	--	<0.000050	--	0.073	0.560	<0.00086	<0.000090	<0.00017	<0.00099	<0.0024
E-7	11/01/05	--	<0.013	--	0.022	<0.0015	<0.0018	<0.0020	<0.0062	--	--	--	--	--	--	0.081	0.390	0.0031 (tr)	<0.013	<0.0026	<0.0021	--
E-7	10/12/06	--	<0.0071	--	0.021	<0.00077	<0.0032	0.011	<0.0012	--	--	--	--	<0.000026	--	0.074	0.330	<0.0014	<0.016	<0.0041	0.0035(tr)	0.027(tr)
E-9	12/6/95	0.44	ND	ND	0.0300	ND	ND	ND	ND	ND	0.6300	ND	--	ND	ND	ND	ND	ND	ND	<0.5	ND	0.0300
E-9	12/12/96	0.90	0.13	ND	0.04	ND	ND	ND	ND	ND	1.3	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
E-9	12/29/97	0.28	0.13	ND	0.03	ND	ND	ND	ND	ND	0.32	ND	--	ND	ND	ND	ND	ND	ND	ND	0.05	ND
E-9	05/19/99	--	--	ND	--	--	--	--	ND	--	--	ND	--	ND	--	--	--	ND	--	--	--	ND
E-9	09/24/02	--	<0.050	0.0011	0.020	<0.0017	<0.010	<0.020	<0.006	0.0058	--	<0.00018	--	0.000035	--	0.020	<0.06	<0.020	<0.070	<0.00015	<0.009	<0.007
E-9	10/23/03	--	<0.024	<0.012	0.024	<0.0015	0.0050	0.0130	<0.011	<0.0032	--	0.029	--	<0.00012	--	<0.0018	0.039	<0.0018	<0.029	<0.012	0.094	<0.018
E-9	01/20/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.059	--
E-9	01/21/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.094	--
E-9	10/14/2004	--	<0.014	<0.0016	0.028 (tr)	<0.0013	<0.014	0.014 (tr)	<0.0038	0.0035 (tr)	--	0.00044 (tr)	--	<0.000050	--	<0.0055	0.0021 (tr)	<0.0043	<0.000090	<0.00017	0.068	<0.012
E-9	11/2/2005	--	<0.013	--	0.028	<0.0015	0.0027 (tr)	<0.0020	<0.0062	--	--	--	--	--	--	<0.0022	<0.0068	<0.0020	0.013 (tr)	<0.0026	0.150	--
E-9	10/11/2006	--	<0.014	<0.036	0.029	<0.0015	<0.0064	0.017(tr)	<0.0024	<0.0026	--	<0.0090	--	<0.000026	--	<0.0070	<0.019	<0.0028	<0.032	<0.0082	0.0078(tr)	<0.015

## Notes:

Results are in milligrams per liter (mg/L).

Analyzed by USEPA Method 200.7

< or ND = not detected at or above the method detection limit.

-- = not analyzed for this constituent.

# ATTACHMENT A

Table 11  
Organo-Phosphorus Pesticides Analytical Results  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Azinphos methyl	Bolstar	Chlorpyrifos	Coumaphos	Demeton	Diazinon	Dichlorvos	Disulfoton	Ethoprop	Fensulfothion	Fenthion	Merphos	Mevinphos	Naled (Dibrom)	Parathion methyl	Phorate	Ronnel (Fenchlorphos)	Stirophos (Tetrachlorvinphos)	Tokuthion (Prothiofos)	Trichloronate
B-204B	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-204B	09/23/02	<0.81	<0.57	<1.5	<0.64	<0.49	<1.0	<0.83	<0.53	<0.82	<0.33	<1.2	<1.0	<0.42	<0.96	<0.98	<0.93	<0.85	<0.98	<0.70	<0.71
B-204B	10/23/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
B-204B	10/13/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
B-207	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-207	09/24/02	<0.81	<0.57	<1.5	<0.64	<0.49	<1.0	<0.83	<0.53	<0.82	<0.33	<1.2	<1.0	<0.42	<0.96	<0.98	<0.93	<0.85	<0.98	<0.70	<0.71
B-207	10/23/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
B-207	10/13/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
E-2	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
E-2	10/22/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
E-2	10/14/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
E-3	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
E-3	10/22/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
E-3	10/14/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
E-6	10/23/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
E-6	10/14/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
E-7	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
E-7	09/23/02	<0.81	<0.57	<1.5	<0.64	<0.49	<1.0	<0.83	<0.53	<0.82	<0.33	<1.2	<1.0	<0.42	<0.96	<0.98	<0.93	<0.85	<0.98	<0.70	<0.71
E-7	10/22/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
E-7	10/14/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036
E-9	05/19/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
E-9	09/24/02	<0.81	<0.57	<1.5	<0.64	<0.49	<1.0	<0.83	<0.53	<0.82	<0.33	<1.2	<1.0	<0.42	<0.96	<0.98	<0.93	<0.85	<0.98	<0.70	<0.71
E-9	10/23/03	<0.052	<0.016	<0.014	<0.102	<0.042	<0.010	<0.015	<0.031	<0.018	<0.042	<0.021	<0.025	<0.046	<0.015	<0.013	<0.035	<0.020	<0.16	<0.012	<0.033
E-9	10/14/04	<0.045	<0.033	<0.036	<0.070	<0.073	<0.027	<0.040	<0.014	<0.036	<0.047	<0.037	<0.039	<0.033	<0.040	<0.045	<0.025	<0.035	<0.040	<0.040	<0.036

## Notes:

The results are from analysis of samples by USEPA Method 8141A

Units are reported in micrograms per liter (ug/L).

< or ND indicates constituent not detected at or above the method detection limit.

## ATTACHMENT A

Table 12  
Base Neutral and Acid Extractable Compounds Analytical Results  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Acenaphthene	Acenaphthylene	Aniline	Anthracene	Benzo[a]anthracene (Benz[a]anthracene)	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[a]pyrene	Benzo[ghi,perylene]	Benzyl Alcohol	Bis(2-chloroethyl) ether (Dichloroethyl ether)	Bis(2-chloroethoxy) methane	bis(2-Chloroisopropyl) ether	Bis(2-chloro-1-methylethyl) ether	Bis(2-ethylhexyl) phthalate	4-Bromophenyl phenyl ether	4-Chloroaniline (p-Chloroaniline)	2-Chloronaphthalene	4-Chlorophenyl phenyl ether	Chrysene	Dibenzo[a,h]anthracene	Dibenzofuran	Di-n-butyl phthalate	3,3-Dichlorobenzidine	Diethyl phthalate	Dimethyl phthalate	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene
B-204B	09/23/02	<0.22	<0.29	<0.27	<0.27	<0.29	<0.45	<0.26	<0.51	<0.41	<0.96	<0.40	<0.33	-	<0.38	<0.73	<0.30	<0.25	<0.25	<0.35	<0.17	<0.53	<0.27	<0.35	<0.32	<0.33	<0.30	<0.19	<0.41	<0.69	<0.25	<0.28
B-204B	10/23/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	0.50	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
B-204B	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.34	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.33	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/01/04	<0.19	<0.18	<0.58	<0.26	<0.18	<0.36	<0.20	<0.20	<0.18	<0.23	<0.34	<0.24	-	<0.18	<0.28	<0.27	<0.56	<0.22	<0.23	<0.37	<0.18	<0.22	<0.29	<0.24	<0.25	<0.20	<0.20	<0.21	<0.21	<0.27	<0.26
B-204B	11/01/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	3.2	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
B-204B	10/10/06	<0.35	<0.32	<1.8	<0.27	<0.34	<0.38	<0.47	<0.45	<0.56	<0.44	<0.49	<1.6	<0.57	-	<0.98	<0.40	<0.99	<0.41	<0.33	<0.30	<0.48	<0.37	<0.40	<1.5	<0.34	<0.32	<0.39	<0.48	<0.41	<0.30	<0.36
B-207	09/24/02	<0.22	<0.29	<0.27	<0.27	<0.29	<0.45	<0.26	<0.51	<0.41	<0.96	<0.40	<0.33	-	<0.38	<0.73	<0.30	<0.25	<0.25	<0.35	<0.17	<0.53	<0.27	<0.35	<0.32	<0.33	<0.30	<0.19	<0.41	<0.69	<0.25	<0.28
B-207	10/23/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	1.2	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
B-207	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.31	n/a	n/a	n/a	n/a	n/a	n/a
B-207	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.33	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/01/04	<0.19	<0.18	<0.58	<0.26	<0.18	<0.36	<0.20	<0.20	<0.18	<0.23	<0.34	<0.24	-	<0.18	<0.28	<0.27	<0.56	<0.22	<0.23	<0.37	<0.18	<0.22	<0.29	<0.24	<0.25	<0.20	<0.20	<0.21	<0.21	<0.27	<0.26
B-207	11/03/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	2.7	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
B-207	10/12/06	<0.35	<0.32	<1.8	<0.27	<0.34	<0.38	<0.47	<0.45	<0.56	<0.44	<0.49	<1.6	<0.57	-	2.7(tr)	<0.40	<0.99	<0.41	<0.33	<0.30	<0.48	<0.37	<0.40	<1.5	<0.34	<0.32	<0.39	<0.48	<0.41	<0.30	<0.36
E-2	10/22/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
E-2	11/30/04	<0.26	<0.25	<0.72	<0.24	<0.35	<0.41	<0.19	<0.31	<0.66	<0.30	<0.37	<0.37	-	<0.28	<1.3	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.23	<0.32
E-2	11/03/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	3.2	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
E-2	10/12/06	<0.35	<0.32	<1.8	<0.27	<0.34	<0.38	<0.47	<0.45	<0.56	<0.44	<0.49	<1.6	<0.57	-	3.9(tr)	<0.40	<0.99	<0.41	<0.33	<0.30	<0.48	<0.37	<0.40	<1.5	<0.34	<0.32	<0.39	<0.48	<0.41	<0.30	<0.36
E-3	10/22/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
E-3	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.33	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	<0.076	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.35	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/30/04	<0.26	<0.25	<0.72	<0.24	<0.35	<0.41	<0.19	<0.31	<0.66	<0.30	<0.37	<0.37	-	<0.28	<1.3	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.23	<0.32
E-6	10/23/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
E-6	12/01/04	<0.19	<0.18	<0.58	<0.26	<0.18	<0.36	<0.20	<0.20	<0.18	<0.23	<0.34	<0.24	-	<0.18	<0.28	<0.27	<0.56	<0.22	<0.23	<0.37	<0.18	<0.22	<0.29	<0.24	<0.25	<0.20	<0.20	<0.21	<0.21	<0.27	<0.26
E-6	11/02/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	2.9	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
E-6	10/12/06	<0.35	<0.32	<1.8	<0.27	<0.34	<0.38	<0.47	<0.45	<0.56	<0.44	<0.49	<1.6	<0.57	-	5.6	<0.40	<0.99	<0.41	<0.33	<0.30	<0.48	<0.37	<0.40	<1.5	<0.34	<0.32	<0.39	<0.48	<0.41	<0.30	<0.36
E-7	09/23/02	<0.22	<0.29	<0.27	<0.27	<0.29	<0.45	<0.26	<0.51	<0.41	<0.96	<0.40	<0.33	-	<0.38	<0.73	<0.30	<0.25	<0.25	<0.35	<0.17	<0.53	<0.27	<0.35	<0.32	<0.33	<0.30	<0.19	<0.41	<0.69	<0.25	<0.28
E-7	10/22/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
E-7	12/01/04	<0.19	<0.18	<0.58	<0.26	<0.18	<0.36	<0.20	<0.20	<0.18	<0.23	<0.34	<0.24	-	<0.18	<0.28	<0.27	<0.56	<0.22	<0.23	<0.37	<0.18	<0.22	<0.29	<0.24	<0.25	<0.20	<0.20	<0.21	<0.21	<0.27	<0.26
E-7	11/01/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	2.6	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
E-7	10/12/06	<0.35	<0.32	<1.8	<0.27	<0.34	<0.38	<0.47	<0.45	<0.56	<0.44	<0.49	<1.6	<0.57	-	2.9(tr)	<0.40	<0.99	<0.41	<0.33	<0.30	<0.48	<0.37	<0.40	<1.5	<0.34	<0.32	<0.39	<0.48	<0.41	<0.30	<0.36
E-9	09/24/02	<0.22	<0.29	<0.27	<0.27	<0.29	<0.45	<0.26	<0.51	<0.41	<0.96	<0.40	<0.33	-	<0.38	<0.73	<0.30	<0.25	<0.25	<0.35	<0.17	<0.53	<0.27	<0.35	<0.32	<0.33	<0.30	<0.19	<0.41	<0.69	<0.25	<0.28
E-9	10/23/03	<0.24	<0.31	<0.28	<0.28	<0.31	<0.47	<0.27	<0.43	<0.53	<1.1	<0.42	<0.35	-	<0.40	<0.74	<0.32	<0.27	<0.26	<0.37	<0.17	<0.55	<0.29	<0.37	<0.34	<0.35	<0.32	<0.20	<0.44	<0.75	<0.27	<0.30
E-9	12/01/04	<0.19	<0.18	<0.58	<0.26	<0.18	<0.36	<0.20	<0.20	<0.18	<0.23	<0.34	<0.24	-	<0.18	<0.28	<0.27	<0.56	<0.22	<0.23	<0.37	<0.18	<0.22	<0.29	<0.24	<0.25	<0.20	<0.20	<0.21	<0.21	<0.27	<0.26
E-9	11/02/05	<0.26	<0.25	<0.72	<0.27	<0.35	<0.41	<0.21	<0.31	<0.66	<0.30	<0.37	<0.37	<0.28	-	3.3	<0.41	<0.66	<0.31	<0.27	<0.43	<0.68	<0.29	<0.31	<2.5	<0.39	<0.24	<0.23	<0.29	<0.67	<0.28	<0.32
E-9	10/11/06	<0.70	<0.64	<3.6	<0.54	<0.68	&lt																									

## ATTACHMENT A

**Table 12**  
**Base Neutral and Acid Extractable Compounds Analytical Results**  
**Blue Hills Disposal Facility**

Monitoring Well	Date Sample Collected	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Ideno [1,2,3,-cd] pyrene	Isophorone	2-Methylnaphthalene	2-Naphthylamine	2-Nitroaniline (o-Nitroaniline)	3-Nitroaniline (m-Nitroaniline)	4-Nitroaniline (p-Nitroaniline)	Nitrobenzene	N-Nitrosodimethylamine (Dimethylnitrosamine)	N-Nitrosodiphenylamine (Diphenylnitrosamine)	N-Nitrosodi-N-propylamine	Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2-Chlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol (m-Xylenol)	2,4-Dinitrophenol	2-Nitrophenol (o-Nitrophenol)	4-Nitrophenol (p-Nitrophenol)	Pentachlorophenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Acetophenone	2-Acetylaminofluorene (2-AAF)	4-Aminobiphenyl
B-204B	09/23/02	<0.45	<0.28	<0.31	<0.67	<0.28	<0.31	<0.29	<0.26	<0.30	<0.14	<0.27	<0.24	<0.30	<0.28	<0.25	<0.33	-	<0.35	<0.20	<0.30	<0.29	<2.5	<0.43	<1.5	<3.5	<0.15	<0.35	<0.30	<0.68	<4.3	<0.39
B-204B	10/23/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
B-204B	01/20/04	n/a	n/a	n/a	n/a	n/a	<0.33	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/21/04	n/a	n/a	n/a	n/a	n/a	<0.32	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/01/04	<0.33	<0.29	<0.41	<0.23	<0.23	<0.37	<0.77	<0.21	<0.33	<0.20	<0.24	<0.14	<0.23	<0.19	<0.29	<0.19	-	<0.24	<0.21	<0.24	<0.48	<0.17	<0.23	<0.071	<0.29	<0.15	<0.19	<0.23	<0.37	<0.91	<0.57
B-204B	11/01/05	<0.37	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
B-204B	10/10/06	<0.35	<0.36	<0.29	<0.47	<0.31	<0.27	<5.3	<0.82	<1.6	<0.44	<0.37	<0.53	<0.42	<0.88	<0.29	<0.29	<0.26	-	<0.39	<0.37	<1.5	<0.35	<0.33	<0.35	<0.55	<5.0	<0.37	<0.47	<0.37	<0.91	<0.57
B-207	09/24/02	<0.45	<0.28	<0.31	<0.67	<0.28	<0.31	<0.29	<0.26	<0.30	<0.14	<0.27	<0.24	<0.30	<0.28	<0.25	<0.33	-	<0.35	<0.20	<0.30	<0.29	<2.5	<0.43	<1.5	<3.5	<0.15	<0.35	<0.30	<0.68	<4.3	<0.39
B-207	10/23/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
B-207	01/20/04	n/a	n/a	n/a	n/a	n/a	<0.30	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	01/21/04	n/a	n/a	n/a	n/a	n/a	<0.32	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/01/04	<0.33	<0.29	<0.41	<0.23	<0.23	<0.37	<0.77	<0.21	<0.33	<0.20	<0.24	<0.14	<0.23	<0.19	<0.29	<0.19	-	<0.24	<0.21	<0.24	<0.48	<0.17	<0.23	<0.071	<0.29	<0.15	<0.19	<0.23	<0.37	<0.91	<0.57
B-207	11/03/05	<0.44	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
B-207	10/12/06	<0.35	<0.36	<0.29	<0.47	<0.31	<0.27	<5.3	<0.82	<1.6	<0.44	<0.37	<0.53	<0.42	<0.88	<0.29	<0.29	0.40(tr)	-	<0.39	<0.37	<1.5	<0.35	<0.33	<0.35	<0.55	<5.0	<0.37	<0.47	<0.37	<0.91	<0.57
E-2	10/22/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
E-2	11/30/04	<0.44	<0.70	<0.45	<0.61	<0.35	<0.31	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.26	<0.81	-	<0.32	<0.27	<0.30	<0.58	<0.30	<0.35	<0.16	<0.42	<0.18	<0.36	<0.39	<0.37	<0.91	<0.57
E-2	11/03/05	<0.44	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
E-2	10/12/06	<0.35	<0.36	<0.29	<0.47	<0.31	<0.27	<5.3	<0.82	<1.6	<0.44	<0.37	<0.53	<0.42	<0.88	<0.29	<0.29	<0.26	-	<0.39	<0.37	<1.5	<0.35	<0.33	<0.35	<0.55	<5.0	<0.37	<0.47	<0.37	<0.91	<0.57
E-3	10/22/03	<0.49	<0.30	<0.33	<0.73	<0.31	0.89	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
E-3	01/20/04	n/a	n/a	n/a	n/a	n/a	<0.32	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/21/04	n/a	n/a	n/a	n/a	n/a	<0.34	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/30/04	<0.44	<0.70	<0.45	<0.61	<0.35	<0.31	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.26	<0.81	-	<0.32	<0.27	<0.30	<0.58	<0.30	<0.35	<0.16	<0.42	<0.18	<0.36	<0.39	<0.37	<0.91	<0.57
E-6	10/23/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
E-6	12/01/04	<0.33	<0.29	<0.41	<0.23	<0.23	<0.37	<0.77	<0.21	<0.33	<0.20	<0.24	<0.14	<0.23	<0.19	<0.29	<0.19	-	<0.24	<0.21	<0.24	<0.48	<0.17	<0.23	<0.071	<0.29	<0.15	<0.19	<0.23	<0.37	<0.91	<0.57
E-6	11/02/05	<0.44	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
E-6	10/12/06	<0.35	<0.36	<0.29	<0.47	<0.31	<0.27	<5.3	<0.82	<1.6	<0.44	<0.37	<0.53	<0.42	<0.88	<0.29	<0.29	<0.26	-	<0.39	<0.37	<1.5	<0.35	<0.33	<0.35	<0.55	<5.0	<0.37	<0.47	<0.37	<0.91	<0.57
E-7	09/23/02	<0.45	<0.28	<0.31	<0.67	<0.28	<0.31	<0.29	<0.26	<0.30	<0.14	<0.27	<0.24	<0.30	<0.28	<0.25	<0.33	-	<0.35	<0.20	<0.30	<0.29	<2.5	<0.43	<1.5	<3.5	<0.15	<0.35	<0.30	<0.68	<4.3	<0.39
E-7	10/22/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
E-7	12/01/04	<0.33	<0.29	<0.41	<0.23	<0.23	<0.37	<0.77	<0.21	<0.33	<0.20	<0.24	<0.14	<0.23	<0.19	<0.29	<0.19	-	<0.24	<0.21	<0.24	<0.48	<0.17	<0.23	<0.071	<0.29	<0.15	<0.19	<0.23	<0.37	<0.91	<0.57
E-7	11/01/05	<0.44	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
E-7	10/12/06	<0.35	<0.36	<0.29	<0.47	<0.31	<0.27	<5.3	<0.82	<1.6	<0.44	<0.37	<0.53	<0.42	<0.88	<0.29	<0.29	<0.26	-	<0.39	<0.37	<1.5	<0.35	<0.33	<0.35	<0.55	6.7(tr)	<0.37	<0.47	<0.37	<0.91	<0.57
E-9	09/24/02	<0.45	<0.28	<0.31	<0.67	<0.28	<0.31	<0.29	<0.26	<0.30	<0.14	<0.27	<0.24	<0.30	<0.28	<0.25	<0.33	-	<0.35	<0.20	<0.30	<0.29	<2.5	<0.43	<1.5	<3.5	<0.15	<0.35	<0.30	<0.68	<4.3	<0.39
E-9	10/23/03	<0.49	<0.30	<0.33	<0.73	<0.31	<0.34	<0.31	<0.28	<0.33	<0.15	<0.29	<0.26	<0.32	<0.30	<0.27	<0.36	-	<0.37	<0.21	<0.31	<0.31	<2.7	<0.47	<1.7	<3.8	<0.16	<0.38	<0.32	<0.72	<4.5	<0.41
E-9	12/01/04	<0.33	<0.29	<0.41	<0.23	<0.23	<0.37	<0.77	<0.21	<0.33	<0.20	<0.24	<0.14	<0.23	<0.19	<0.29	<0.19	-	<0.24	<0.21	<0.24	<0.48	<0.17	<0.23	<0.071	<0.29	<0.15	<0.19	<0.23	<0.37	<0.91	<0.57
E-9	11/02/05	<0.44	<0.70	<0.45	<0.61	<0.35	<0.39	<4.1	<0.29	<0.49	<0.28	<0.26	<0.17	<0.30	<0.41	<0.30	<0.81	<0.35	-	<0.27	<0.30	<0.58	<0.21	<0.35	<0.16	<0.42	-	<0.36	<0.39	<0.37	<0.91	<0.57
E-9	10/11/06	<0.70	<0.72	<0.58	<0.94	<0.62	<0.54	<11	<1.6	<3.2	<0.88	<0.74	<1.1	<0.84	<1.8	<0.58	<0.58	<0.52	-	<0.78	<0.74	<3.0	<0.70	<0.66	<0.70	<1.1	<5.0	&				

## ATTACHMENT A

Table 12  
Base Neutral and Acid Extractable Compounds Analytical Results  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	Aramite	Butyl phthalate (Butyl benzyl phthalate)	Chlorobenzilate	o-Cresol (2-methylphenol)(I)	m- & p-Cresol (3- & 4-methylphenol)	Diallate	2,6-Dichlorophenol	Dimethoate	p-(Dimethylamino)azobenzene (Benzenamine)	(Dimethylamino)azobenzene	7,12-Dimethylbenz[a]anthracene	3,3'-Dimethylbenzidine	a,a-Dimethylphenethylamine	m-Dinitrobenzene (1,3-Dinitrobenzene)	4,6-Dinitro-2-methylphenol	Diphenylamine	Disulfoton	Ethyl methanesulfonate	Famphur	Hexachlorophene	Hexachloropropene	Isodrin	Isosafrole	Kepone	Methapyrene	3-Methylcholanthrene	Methyl methanesulfonate	Methyl-Parathion	1,4-Naphthoquinone	1-Naphthylamine	5-Nitro-o-toluidine
B-204B	09/23/02	<3.9	<0.32	<0.76	<0.28	<0.54	<2.0	<0.65	<0.56	n/a	<0.51	<0.38	<6.6	<0.84	<0.39	<3.4	<0.34	<4.3	<0.46	<2.2	<25	<0.57	<3.8	<1.1	<2.0	<0.53	<2.7	<0.46	<0.77	<0.69	<0.53	<0.53
B-204B	10/23/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
B-204B	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/01/04	<0.53	<0.24	<1.1	<0.19	<0.42	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.6	<1.7	<0.33	<0.17	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
B-204B	11/01/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
B-204B	10/10/06	<0.53	<0.32	<1.1	<1.3	<1.4	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
B-207	09/24/02	<3.9	<0.32	<0.76	<0.28	<0.54	<2.0	<0.65	<0.56	n/a	<0.51	<0.38	<6.6	<0.84	<0.39	<3.4	<0.34	<4.3	<0.46	<2.2	<25	<0.57	<3.8	<1.1	<2.0	<0.53	<2.7	<0.46	<0.77	<0.69	<0.53	<0.53
B-207	10/23/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
B-207	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/01/04	<0.53	<0.24	<1.1	<0.19	<0.42	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.6	<1.7	<0.33	<0.17	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
B-207	11/03/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
B-207	10/12/06	<0.53	<0.32	<1.1	<1.3	<1.4	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	<2.5	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-2	10/22/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
E-2	11/30/04	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.3	<1.7	<0.33	<0.21	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
E-2	11/03/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-2	10/12/06	<0.53	<0.32	<1.1	<1.3	<1.4	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	<2.5	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-3	10/22/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
E-3	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/30/04	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.3	<1.7	<0.33	<0.21	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
E-6	10/23/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
E-6	12/01/04	<0.53	<0.24	<1.1	<0.19	<0.42	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.6	<1.7	<0.33	<0.17	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
E-6	11/02/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-6	10/12/06	<0.53	<0.32	<1.1	<1.3	<1.4	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	<2.5	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-7	09/23/02	<3.9	<0.32	<0.76	<0.28	<0.54	<2.0	<0.65	<0.56	n/a	<0.51	<0.38	<6.6	<0.84	<0.39	<3.4	<0.34	<4.3	<0.46	<2.2	<25	<0.57	<3.8	<1.1	<2.0	<0.53	<2.7	<0.46	<0.77	<0.69	<0.53	<0.53
E-7	10/22/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
E-7	12/01/04	<0.53	<0.24	<1.1	<0.19	<0.42	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.6	<1.7	<0.33	<0.17	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
E-7	11/01/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-7	10/12/06	<0.53	<0.32	<1.1	<1.3	<1.4	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	<2.5	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-9	09/24/02	<3.9	<0.32	<0.76	<0.28	<0.54	<2.0	<0.65	<0.56	n/a	<0.51	<0.38	<6.6	<0.84	<0.39	<3.4	<0.34	<4.3	<0.46	<2.2	<25	<0.57	<3.8	<1.1	<2.0	<0.53	<2.7	<0.46	<0.77	<0.69	<0.53	<0.53
E-9	10/23/03	<4.1	<0.33	<0.80	<0.30	<0.56	<2.1	<0.68	<0.61	<0.53	<0.53	<0.40	<7.0	<0.92	<0.42	<3.7	<0.37	<4.6	<0.50	<2.4	<28	<0.62	<4.1	<1.2	<2.2	<0.57	<2.9	<0.50	<0.83	<0.75	<0.58	<0.57
E-9	12/01/04	<0.53	<0.24	<1.1	<0.19	<0.42	<0.84	<0.32	<0.50	<0.69	<0.69	<0.39	<3.6	<1.7	<0.33	<0.17	<0.52	<0.75	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	<1.1	<1.1	<0.38	<0.53
E-9	11/02/05	<0.53	<0.74	<1.1	<0.36	<0.60	<0.84	<0.32	-	<0.69	-	<0.39	<3.6	<1.7	<0.33	-	<0.52	-	<0.33	<4.2	<40	<0.45	<0.39	<0.69	<3.8	<2.0	<0.61	<0.45	-	<1.1	<0.38	<0.53
E-9	10/11/06	<1.1	<0.64	<2.2	<2.6	<2.8	<1.7	<0.64	-	<1.4	-	<0.78	<0.72	<3.4	<0.66	<5.0	<1.0	-	<0.66	<8.4	<80	<0.90	<0.78	<1.4	<7.6	<4.0	<1.2	<0.90	-	<2.2	<0.76	<1.1



## ATTACHMENT A

Table 12  
Base Neutral and Acid Extractable Compounds Analytical Results  
Blue Hills Disposal Facility

Monitoring Well	Date Sample Collected	4-Nitroquinoline 1-Oxide	N-Nitrosodibutylamine	N-Nitrosodiethylamine (Diethylnitrosamine)	N-Nitrosomethyl/ethylamine (Methylethylnitrosamine)	N-Nitrosomorpholine	N-Nitrosopiperidine	N-Nitrosopyrrolidine	Parathion	Pentachlorobenzene	Pentachloroethane	Pentachloronitrobenzene (PCNB)	Phenacetin	1,4-Phenylenediamine (p-Phenylenediamine)	Phorate	2-Picoline	Pronamide	Pyridine	Safrole	Sulfotep	1,2,4,5-Tetrachlorobenzene	2,3,4,6-Tetrachlorophenol	Tetraethyl-dithio-pyrophosphate	Thionazin	o-Toluidine	Toxaphene	0,0,0-Triethyl phosphorothioate	1,3,5-Trinitrobenzene (sym-Trinitrobenzene)	
B-204B	09/23/02	<3.3	<0.53	<0.45	<0.41	<0.74	<0.49	<0.57	<2.2	<0.73	-	<0.83	<0.47	<1.9	<0.62	<0.88	<3.6	<1.3	<0.56	-	<0.59	<0.47	<0.62	<0.67	<0.55	<100	<0.72	<0.83	
B-204B	10/23/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
B-204B	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-204B	12/01/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
B-204B	11/01/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
B-204B	10/10/06	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<0.22	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
B-207	09/24/02	<3.3	<0.53	<0.45	<0.41	<0.74	<0.49	<0.57	<2.2	<0.73	-	<0.83	<0.47	<1.9	<0.62	<0.88	<3.6	<1.3	<0.56	-	<0.59	<0.47	<0.62	<0.67	<0.55	<100	<0.72	<0.83	
B-207	10/23/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
B-207	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B-207	12/01/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
B-207	11/03/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
B-207	10/12/06	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<0.22	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-2	10/22/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
E-2	11/30/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
E-2	11/03/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-2	10/12/06	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<0.22	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-3	10/22/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
E-3	01/20/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	01/21/04	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
E-3	11/30/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
E-6	10/23/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
E-6	12/01/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
E-6	11/02/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-6	10/12/06	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<0.22	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-7	09/23/02	<3.3	<0.53	<0.45	<0.41	<0.74	<0.49	<0.57	<2.2	<0.73	-	<0.83	<0.47	<1.9	<0.62	<0.88	<3.6	<1.3	<0.56	-	<0.59	<0.47	<0.62	<0.67	<0.55	<100	<0.72	<0.83	
E-7	10/22/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
E-7	12/01/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
E-7	11/01/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-7	10/12/06	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<0.22	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-9	09/24/02	<3.3	<0.53	<0.45	<0.41	<0.74	<0.49	<0.57	<2.2	<0.73	-	<0.83	<0.47	<1.9	<0.62	<0.88	<3.6	<1.3	<0.56	-	<0.59	<0.47	<0.62	<0.67	<0.55	<100	<0.72	<0.83	
E-9	10/23/03	<3.6	<0.57	<0.49	<0.44	<0.79	<0.53	<0.63	<2.4	<0.80	-	<0.90	<0.51	<2.0	<0.68	<0.96	<3.8	<1.4	<0.62	-	<0.65	<0.51	<0.68	<0.73	<0.60	<100	<0.79	<0.91	
E-9	12/01/04	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	<0.61	<0.32	-	<0.44	<0.30	<0.82	<0.54	<2.1	<0.48	<1.5	<0.36	-	<0.30	<0.37	<0.46	<0.62	<0.78	<100	<0.47	<0.43	
E-9	11/02/05	<3.4	<0.29	<0.37	<0.26	<0.33	<0.31	<0.30	-	<0.32	<3.3	<0.44	<0.30	<0.82	-	<2.1	<0.48	<1.5	<0.36	<0.46	<0.30	<0.37	-	-	<0.78	<50	<0.47	-	
E-9	10/11/06	<6.8	<0.58	<0.74	<0.52	<0.66	<0.62	<0.60	-	<0.64	<6.6	<0.88	<0.60	<1.6	-	<4.2	<0.96	<0.44	<0.72	<0.92	<0.60	<0.74	-	-	<1.6	<100	<0.94	-	

## Notes:

Results are from analysis of samples by USEPA Method 8270.  
Units are reported in micrograms per liter (ug/L).

n/a = Not analyzed for this constituent.

< indicates constituent not detected at or above the MDL. No MDL is available for Toxaphene by USEPA Method 8270, hence the "<100" given above for Toxaphene is the PQL for this analyte.

# ATTACHMENT A

**Table 13**  
**Sample Container Requirements**  
**Corrective Action Program Monitoring Parameters and Constituents of Concern**  
**Blue Hills Disposal Facility**

Parameters	Minimum Volume per Bottle (milliliters)	Minimum Number of Bottles	Container Type	Preservation <sup>1</sup>	Holding Time	Analytical Method <sup>2</sup>
<b>MONITORING PARAMETERS (SEMI-ANNUALLY)</b>						
Total Dissolved Solids	250	1	Plastic	None	7 days	EPA 160.1
Total Organic Carbon	250	1	Glass Amber	H <sub>2</sub> SO <sub>4</sub>	28 days	EPA 415.1
Chlorophenoxy Herbicides	1,000	2	Glass Amber	HCl to pH <2	14 days	EPA 8151
Volatile Organic Compounds	40	3	Glass	HCl to pH <2	14 days	EPA 8260
<b>MONITORING PARAMETERS (ANNUALLY)</b>						
<b>Standard Minerals</b>						
Calcium	250	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Magnesium	250	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Sodium	250	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Potassium	250	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Sulfate	250	1	Plastic	None	28 days	EPA 300.0
Chloride	250	1	Plastic	None	28 days	EPA 300.0
Nitrate as Nitrogen (NO <sub>3</sub> -N)	250	1	Plastic	H <sub>2</sub> SO <sub>4</sub> to pH <2	28 days	EPA 353.2
<b>CONSTITUENTS OF CONCERN (EVERY 5 YEARS) <sup>3</sup></b>						
<b>Metals</b>						
Arsenic	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Copper	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Lead	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Mercury	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
Zinc	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 200.7
<b>Minerals</b>						
Antimony	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Barium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Beryllium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Cadmium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Chromium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Cobalt	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Cyanide	500	1	Plastic	NaOH	14 days	EPA 6010
Nickel	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 7520
Selenium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 7741
Silver	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Sulfide	500	1	Plastic	Zinc Acetate	7 days	EPA 200.7
Thallium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 7841
Tin	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
Vanadium	500	1	Plastic	HNO <sub>3</sub> to pH <2	180 days	EPA 6010
<b>Dioxins and Furans</b>	1,000	1	Glass Amber	None	28 days	EPA 8280A
<b>Phenols</b>	500	1	Glass Amber	H <sub>2</sub> SO <sub>4</sub>	28 days	EPA 420.2
<b>Base Neutral and Acid Extractables</b>	1,000	1	Glass Amber	None	7 days	EPA 8270C
<b>Organics</b>						
Organo-Chlorine Pesticides and PCBs	1,000	2	Glass Amber	None	14 days	EPA 8080/8081
Organo-Phosphorus Compounds	1,000	2	Glass Amber	None	7 days extraction 40 days after extraction	EPA 8141A

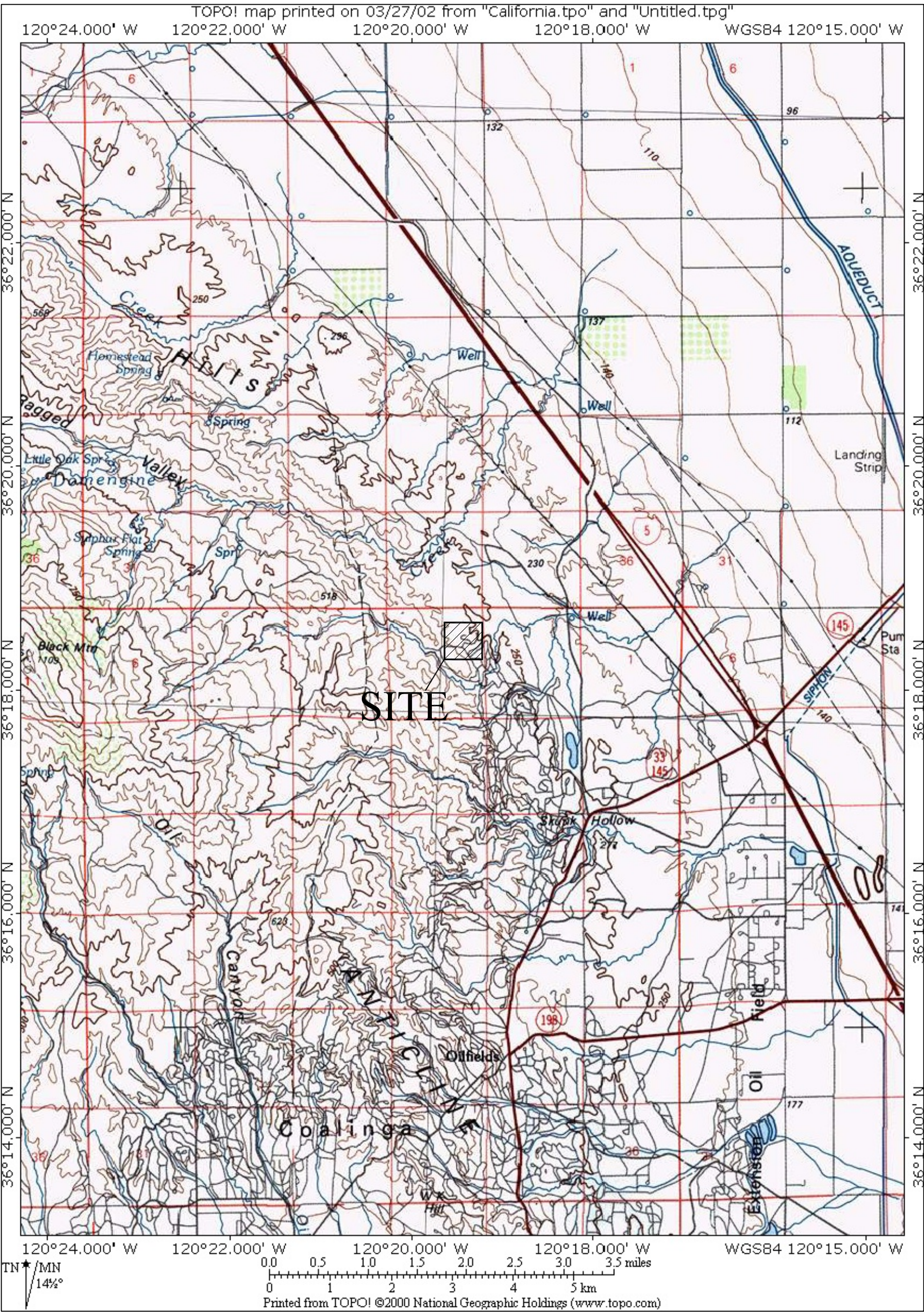
**Notes:**


<sup>1</sup> Preservation - Procedures to preserve sample integrity including maintaining samples at 4°C and using preservatives as indicated: HCl.

<sup>2</sup> Analytical method may be substituted by another approved equivalent US Environmental Protection Agency Method.

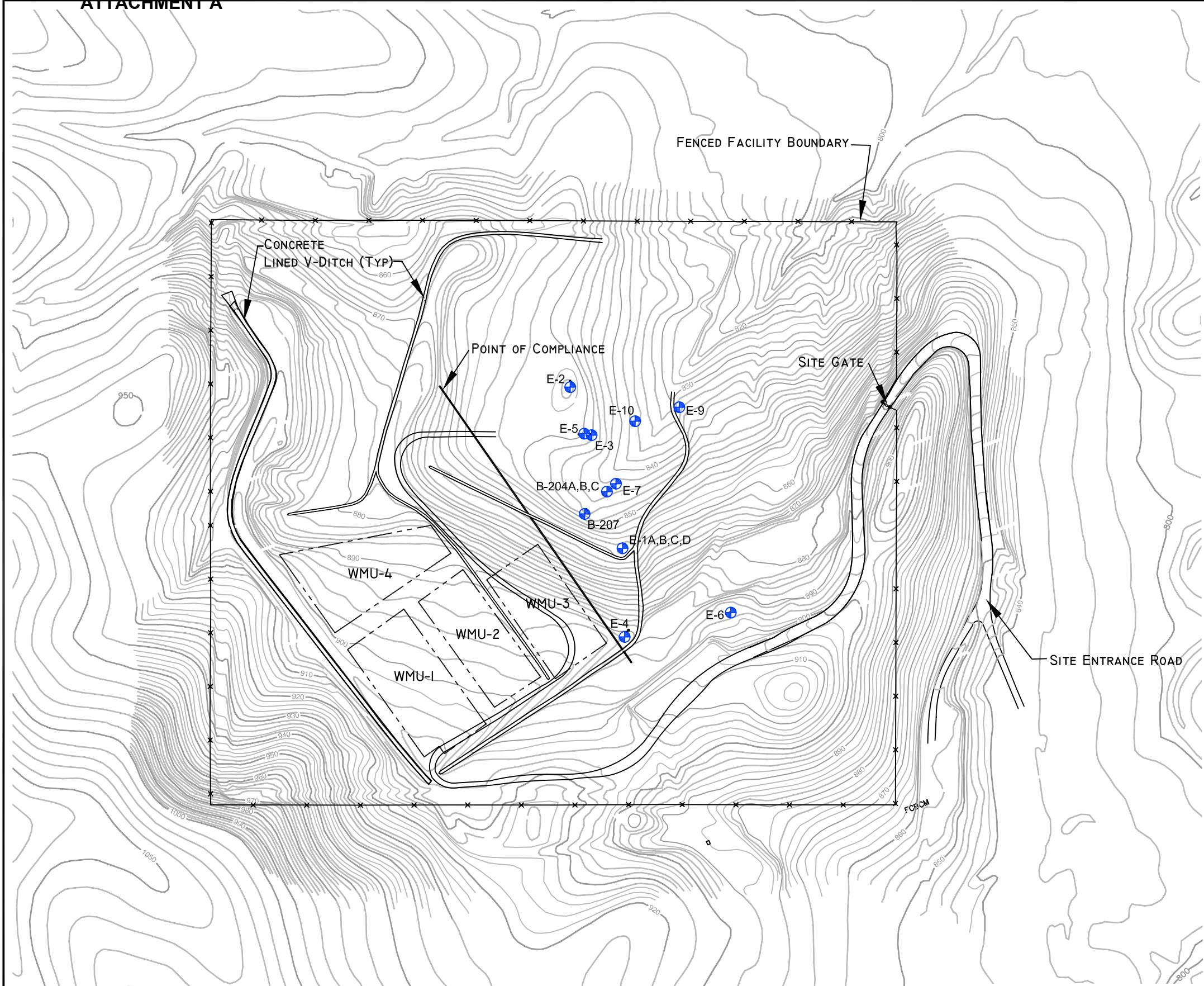
<sup>3</sup> Metals are to be field filtered.





 <b>SECOR</b> 3475 WEST SHAW AVENUE, SUITE 104 FRESNO, CALIFORNIA (559) 271-2650/271-5108 (FAX)	FOR:  BLUE HILLS DISPOSAL FACILITY FRESNO COUNTY, CALIFORNIA		SITE LOCATION MAP		FIGURE:  <b>1</b>
	JOB NUMBER: 94OT.03301.00	DRAWN BY: SFR	CHECKED BY: FG	APPROVED BY: SS	DATE: 05/12/2005





LEGEND:


 E-2 = GROUNDWATER MONITORING WELL

WMU = WASTE MANAGEMENT UNIT

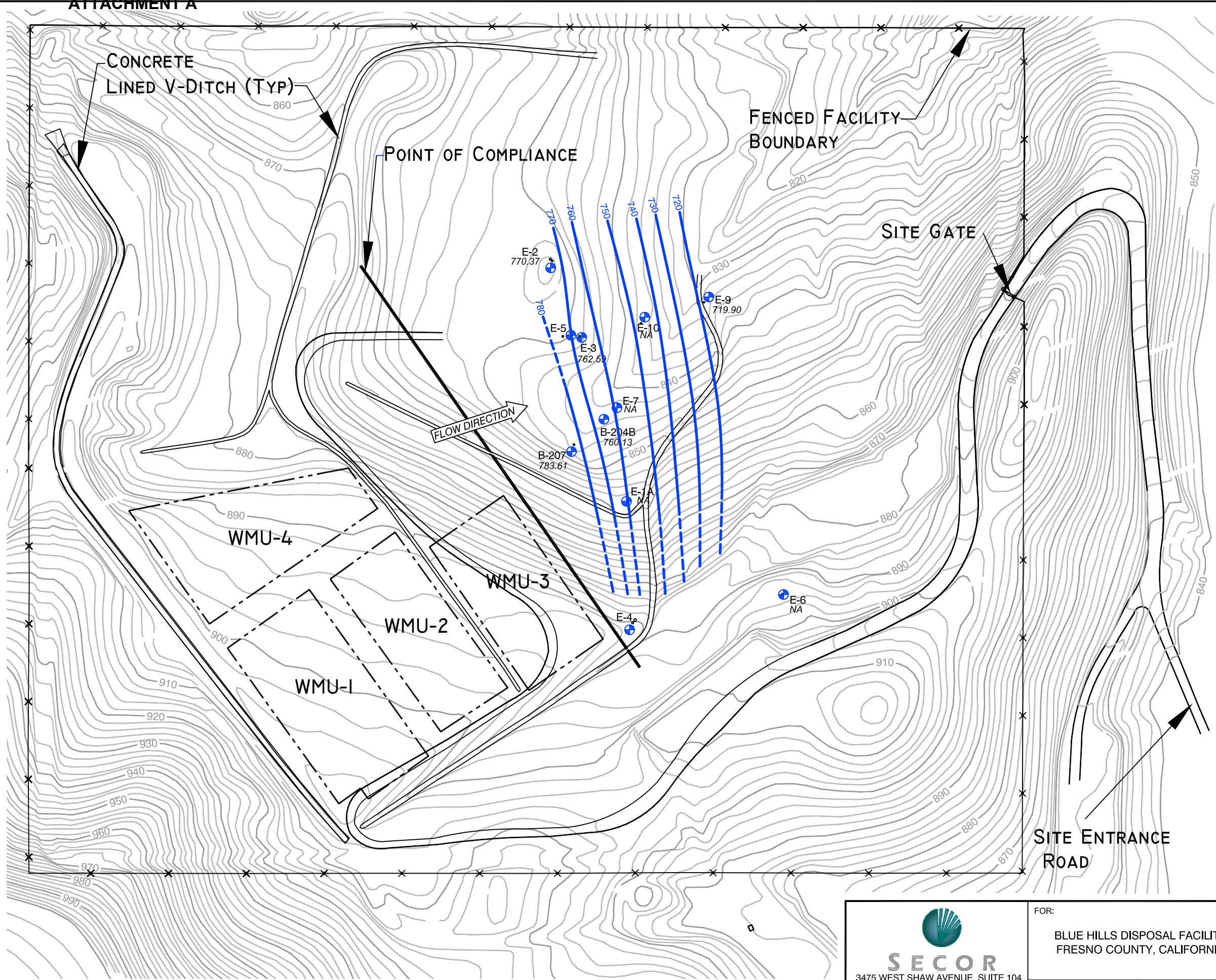
MONITORING WELLS B-204A, B, AND C ARE COMPLETED AS A CLUSTER IN A SINGLE BOREHOLE. WELL B-204A IS COMPLETED IN THE SS2 SANDSTONE UNIT. WELLS B-204B, AND C ARE COMPLETED IN THE SS1 SANDSTONE UNIT.

MONITORING WELLS E-1A, E-1B, E-1C, AND E-1D ARE COMPLETED AS A CLUSTER IN SEPARATE AND INDIVIDUAL BOREHOLES. EACH WELL MONITORS A SEPARATE SANDSTONE UNIT.

- NOTES:
1. TOPOGRAPHY IS BASED ON AN AERIAL SURVEY PREPARED BY AERIAL PHOTOMAPPING SERVICES (APS) OF CLOVIS, CALIFORNIA BASED ON AN AERIAL PHOTOGRAPH TAKEN BY APS ON JUNE 20, 2002 ON BEHALF OF THE COUNTY OF FRESNO.
  2. MONITORING WELL LOCATIONS\* ARE BASED ON SURVEY INFORMATION COMPILED BY THE COUNTY OF FRESNO, CONSTRUCTION DIVISION, SURVEY TEAM AS OF JUNE, 2002. \*E-10 WAS SURVEYED IN MAY, 2004 AS IT WAS NEW.
  3. WMU LOCATIONS ARE BASED ON SURVEY INFORMATION COMPILED BY THE COUNTY OF FRESNO, CONSTRUCTION DIVISION, SURVEY TEAM AS OF NOVEMBER 1992.

 <b>SECOR</b> 3475 WEST SHAW AVENUE, SUITE 104 FRESNO, CALIFORNIA 93711 PHONE (559) 271-2650/271-5108 (FAX)	FOR:  BLUE HILLS DISPOSAL FACILITY FRESNO COUNTY, CALIFORNIA		<b>SITE PLAN</b>		FIGURE:  <b>2</b>
	JOB NUMBER: 94OT.03302.00	DRAWN BY: MDR	CHECKED BY: FG	APPROVED BY: --	DATE: 08/26/06





**LEGEND:**

GROUNDWATER MONITORING WELL

WMU WASTE MANAGEMENT UNIT

MONITORING WELLS B-204A, B AND C ARE COMPLETED AS A CLUSTER IN A SINGLE BOREHOLE. WELL B-204A IS COMPLETED IN THE Ss2 SANDSTONE UNIT. WELLS B-204B, AND C ARE COMPLETED IN THE Ss1 SANDSTONE UNIT.

MONITORING WELLS E-1A, E-1B, E-1C AND E-1D ARE COMPLETED AS A CLUSTER IN SEPARATE AND INDIVIDUAL BOREHOLES. EACH WELL MONITORS A SEPARATE SANDSTONE UNIT.

APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

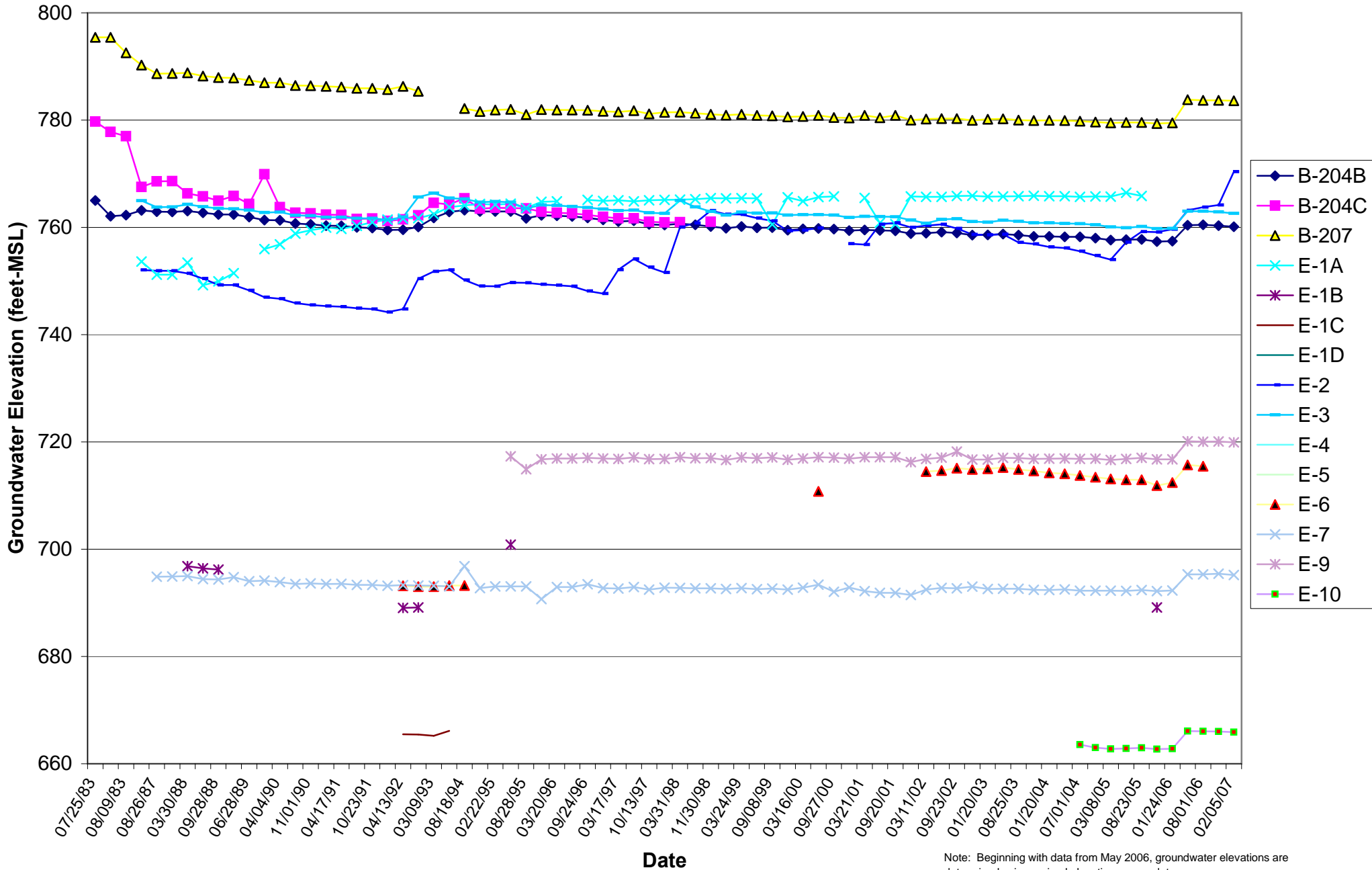
GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)

GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

WELL	W.L. FEET MSL	HYDROLOGIC UNIT
B-204B	760.13	Ss1
B-207	783.61	Ss1
E-1A	N/A	Ss1
E-2	770.37	Ss1
E-3	762.59	Ss1
E-6	N/A	Ss1
E-9	719.90	Ss1

REFERENCE:  
VALLEYGEO GROUNDWATER LEVEL CONTOUR MAP Ss1,  
4TH QUARTER 2004

Figure 4  
Composite Hydrograph  
Blue Hills Disposal Facility



**APPENDIX A**  
**WATER SAMPLE FIELD DATA SHEETS**  
Sampling and Analysis Plan for Corrective Action  
Blue Hills Disposal Facility  
Coalinga, California  
County of Fresno  
Department of Public Works and Planning  
94OT.03302.00  
July 2007

# ATTACHMENT A

## WATER LEVEL READINGS

Blue Hills Disposal Facility  
Fresno County, California

Field Geologist: \_\_\_\_\_

Gauging order	Well ID	Date	Time	Total Well Depth (0.1 feet)	Depth to Water (0.01 feet)	Notes  (All wells have a Master Lock #3204)
2	B204B					
3	B204C					
1	B207					
13	E-1A					
10	E1-B					
11	E-1C					
12	E-1D					
9	E-2					
7	E-3					
14	E-4					
8	E-5					
15	E-6					
4	E-7					
5	E-9					
6a	E-10			--		Calibration with steel tape
6b	E-10					



~~ATTACHMENT A~~

SIGNATURE: \_\_\_\_\_

Odor: \_\_\_\_\_

[illegible]

0.45 micron filter (metals - 4th Quarter only)	
--	--

Remarks: \_\_\_\_\_

Meter Calibration: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Meter S/N: \_\_\_\_\_

# ATTACHMENT A

## Equipment Calibration Log

Instrument # 1 ( make/model/S/N )	Parameters	Calibration Standard ( solution )
QED MP - 20 _____	SP. Conductivity _____	µS/cm _____
LaMotte 2020e _____	Turbidity _____	NTU Std. _____
	D.O. %Saturation _____	(BP) mmHg _____
Notes : _____	pH _____	Units _____
_____	ORP _____	mV _____
_____		
Technician _____	Date _____	

Instrument # 2 ( make/model/S/N )	Parameters	Calibration Standard ( solution )
QED MP - 20 _____	SP. Conductivity _____	µS/cm _____
LaMotte 2020e _____	Turbidity _____	NTU Std. _____
	D.O. %Saturation _____	(BP) mmHg _____
Notes : _____	pH _____	Units _____
_____	ORP _____	mV _____
_____		
Technician _____	Date _____	

Instrument # 3 ( make/model/S/N )	Parameters	Calibration Standard ( solution )
QED MP - 20 _____	SP. Conductivity _____	µS/cm _____
LaMotte 2020e _____	Turbidity _____	NTU Std. _____
	D.O. %Saturation _____	(BP) mmHg _____
Notes : _____	pH _____	Units _____
_____	ORP _____	mV _____
_____		
Technician _____	Date _____	