

# FINAL ENVIRONMENTAL ASSESSMENT PROPERTY ACQUISITION FOR KAHULUI HARBOR

District of Wailuku, County of Maui  
Tax Map Key: (2) 3-7-011:017 portion, (2) 3-7-011:019 portion,  
and (2) 3-7-11:023

VOLUME II OF IV



Proposing Agency:  
STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION

November 1, 2019

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## TABLE OF CONTENTS

| CHAPTER                                                                                                       | PAGE NO. |
|---------------------------------------------------------------------------------------------------------------|----------|
| LIST OF FIGURES .....                                                                                         | v        |
| LIST OF TABLES .....                                                                                          | vi       |
| LIST OF ACRONYMS .....                                                                                        | viii     |
| 1.0 INTRODUCTION .....                                                                                        | 1        |
| 1.1 DESCRIPTION OF THE PROPOSED ACTION .....                                                                  | 2        |
| 1.2 PURPOSE AND NEED OF THE PROPOSED ACTION .....                                                             | 6        |
| 1.3 BACKGROUND .....                                                                                          | 7        |
| 1.4 PROJECT VICINITY .....                                                                                    | 10       |
| 1.4.1 EXISTING LAND USES .....                                                                                | 10       |
| 1.4.2 EXISTING HARBOR USES AND FACILITIES .....                                                               | 10       |
| 1.5 SUMMARY OF IMPACTS AND MITIGATION .....                                                                   | 15       |
| 1.6 LIST OF PERMITS AND APPROVALS .....                                                                       | 17       |
| 1.7 EARLY CONSULTATION .....                                                                                  | 18       |
| 1.8 DISTRIBUTION OF DRAFT ENVIRONMENTAL ASSESSMENT ...                                                        | 21       |
| 2.0 DESCRIPTION OF ALTERNATIVES .....                                                                         | 23       |
| 2.1 ALTERNATIVE - PARCEL A .....                                                                              | 23       |
| 2.2 ALTERNATIVE – PARCEL B (PROPOSED ACTION) .....                                                            | 25       |
| 2.3 ALTERNATIVE – PARCEL C .....                                                                              | 26       |
| 2.4 NO-ACTION ALTERNATIVE .....                                                                               | 26       |
| 3.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT, POTENTIAL<br>ENVIRONMENTAL IMPACTS, AND MITIGATION MEASURES .... | 28       |
| 3.1 CLIMATE AND AIR QUALITY .....                                                                             | 28       |
| 3.1.1 EXISTING CONDITIONS .....                                                                               | 28       |
| 3.1.2 ALTERNATIVE ANALYSIS .....                                                                              | 31       |
| 3.2 LAND USE .....                                                                                            | 34       |
| 3.2.1 EXISTING CONDITIONS .....                                                                               | 34       |

|         |                                                                          |    |
|---------|--------------------------------------------------------------------------|----|
| 3.2.2   | ALTERNATIVE ANALYSIS.....                                                | 37 |
| 3.3     | NOISE .....                                                              | 39 |
| 3.3.1   | EXISTING CONDITIONS.....                                                 | 39 |
| 3.3.2   | ALTERNATIVE ANALYSIS.....                                                | 39 |
| 3.4     | GEOLOGIC AND GROUNDWATER CONDITIONS.....                                 | 40 |
| 3.4.1   | EXISTING CONDITIONS.....                                                 | 40 |
| 3.4.2   | ALTERNATIVE ANALYSIS.....                                                | 44 |
| 3.5     | WATER QUALITY .....                                                      | 46 |
| 3.5.1   | EXISTING CONDITIONS.....                                                 | 46 |
| 3.5.2   | ALTERNATIVE ANALYSIS.....                                                | 47 |
| 3.6     | HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL,<br>AND CULTURAL RESOURCES ..... | 48 |
| 3.6.1   | EXISTING CONDITIONS.....                                                 | 48 |
| 3.6.2   | ALTERNATIVE ANALYSIS.....                                                | 54 |
| 3.7     | BIOTIC COMMUNITIES .....                                                 | 55 |
| 3.7.1   | EXISTING CONDITIONS.....                                                 | 55 |
| 3.7.1.1 | FLORA.....                                                               | 55 |
| 3.7.1.2 | MANDUCA PLANT HOSTS .....                                                | 57 |
| 3.7.1.3 | FAUNA .....                                                              | 58 |
| 3.7.2   | ALTERNATIVE ANALYSIS.....                                                | 59 |
| 3.8     | WETLANDS.....                                                            | 60 |
| 3.8.1   | EXISTING CONDITIONS.....                                                 | 60 |
| 3.8.2   | ALTERNATIVE ANALYSIS.....                                                | 61 |
| 3.9     | FLOODPLAINS .....                                                        | 61 |
| 3.9.1   | EXISTING CONDITIONS.....                                                 | 61 |
| 3.9.2   | ALTERNATIVE ANALYSIS.....                                                | 62 |
| 3.10    | HAZARDOUS MATERIALS, POLLUTION PREVENTION,<br>AND SOLID WASTE .....      | 64 |
| 3.10.1  | EXISTING CONDITIONS .....                                                | 64 |
| 3.10.2  | ALTERNATIVE ANALYSIS .....                                               | 71 |
| 3.11    | SOCIO-ECONOMIC IMPACTS .....                                             | 74 |
| 3.11.1  | EXISTING CONDITIONS .....                                                | 74 |
| 3.11.2  | ALTERNATIVE ANALYSIS.....                                                | 77 |

|        |                                                                     |     |
|--------|---------------------------------------------------------------------|-----|
| 3.12   | SECONDARY SOCIO-ECONOMIC IMPACTS .....                              | 77  |
| 3.12.1 | EXISTING CONDITIONS .....                                           | 77  |
| 3.12.2 | ALTERNATIVE ANALYSIS .....                                          | 78  |
| 3.13   | TRAFFIC AND CIRCULATION .....                                       | 78  |
| 3.13.1 | EXISTING CONDITIONS .....                                           | 78  |
| 3.13.2 | ALTERNATIVE ANALYSIS .....                                          | 81  |
| 3.14   | UTILITIES .....                                                     | 82  |
| 3.14.1 | EXISTING CONDITIONS .....                                           | 82  |
| 3.14.2 | ALTERNATIVE ANALYSIS .....                                          | 83  |
| 3.15   | POLICE AND FIRE SERVICES AND PUBLIC SAFETY .....                    | 85  |
| 3.15.1 | EXISTING CONDITIONS .....                                           | 85  |
| 3.15.2 | ALTERNATIVE ANALYSIS .....                                          | 85  |
| 3.16   | HEALTH CARE FACILITIES .....                                        | 86  |
| 3.16.1 | EXISTING CONDITIONS .....                                           | 86  |
| 3.16.2 | ALTERNATIVE ANALYSIS .....                                          | 86  |
| 3.17   | SCHOOLS .....                                                       | 86  |
| 3.17.1 | EXISTING CONDITIONS .....                                           | 86  |
| 3.17.2 | ALTERNATIVE ANALYSIS .....                                          | 86  |
| 3.18   | VISUAL RESOURCES AND LIGHT EMISSIONS .....                          | 87  |
| 3.18.1 | EXISTING CONDITIONS .....                                           | 87  |
| 3.18.2 | ALTERNATIVE ANALYSIS .....                                          | 87  |
| 3.19   | RECREATIONAL FACILITIES .....                                       | 88  |
| 3.19.1 | EXISTING CONDITIONS .....                                           | 88  |
| 3.19.2 | ALTERNATIVE ANALYSIS .....                                          | 88  |
| 3.20   | GROWTH-INDUCING AND CUMULATIVE IMPACTS .....                        | 89  |
| 3.20.1 | GROWTH-INDUCING IMPACTS .....                                       | 89  |
| 3.20.2 | CUMULATIVE IMPACTS .....                                            | 89  |
| 3.21   | RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES,<br>AND CONTROLS ..... | 97  |
| 3.21.1 | HAWAI'I STATE PLAN .....                                            | 97  |
| 3.21.2 | COASTAL ZONE MANAGEMENT PROGRAM .....                               | 119 |
| 3.21.3 | MAUI GENERAL PLAN .....                                             | 128 |
| 3.21.4 | WAILUKU-KAHULUI COMMUNITY PLAN .....                                | 129 |

|                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| 4.0 DETERMINATION, FINDINGS, AND REASONS SUPPORTING<br>DETERMINATION .....                                                        | 133 |
| 5.0 REFERENCES .....                                                                                                              | 137 |
| 6.0 LIST OF AGENCIES, ORGANIZATIONS, AND INDIVIDUALS<br>CONSULTED .....                                                           | 139 |
| 7.0 LIST OF AGENCIES, ORGANIZATIONS, AND INDIVIDUALS<br>SENT NOTICE OF AVAILABILITY OF THE<br>DRAFT ENVIRONMENTAL ASSESSMENT..... | 142 |

## LIST OF FIGURES

| FIGURE NO. | DESCRIPTION                                                                     | PAGE NO. |
|------------|---------------------------------------------------------------------------------|----------|
| 1          | Proposed Property Acquisition                                                   | 3        |
| 2          | Property Map of Proposed Property Acquisition                                   | 4        |
| 3          | Vicinity Map                                                                    | 11       |
| 4          | Surrounding Businesses and Uses                                                 | 12       |
| 5          | Kahului Harbor East Side Facilities                                             | 14       |
| 6          | <i>Development Plan</i> - Parcel Alternatives                                   | 24       |
| 7          | State of Hawai'i - Land Use                                                     | 35       |
| 8          | County of Maui - Wailuku-Kahului Community Plan                                 | 36       |
| 9          | Limited Phase II – Revised Sample Locations<br>And Groundwater Monitoring Wells | 43       |
| 10         | Historic Buildings                                                              | 50       |
| 11         | Archaeological Impact Survey - Project Area                                     | 53       |
| 12         | Flood Zones                                                                     | 63       |
| 13         | Environmental Hazard Map (Figure 6 – Phase II ESA)                              | 69       |
| 14         | Census Tract                                                                    | 76       |
| 15         | Truck Circulation Patterns - Kahului Harbor                                     | 80       |
| 16         | Fuel Pipeline Alignment (Approximate)                                           | 84       |



## LIST OF TABLES

| TABLE NO. | DESCRIPTION                                                              | PAGE NO. |
|-----------|--------------------------------------------------------------------------|----------|
| 1         | Project Summary                                                          | 1        |
| 2         | Historical Cargo Volumes                                                 | 9        |
| 3         | Pre-consultation Comments Received                                       | 19       |
| 4         | Summary of Comments Received on Draft Environmental<br>Assessment        | 21       |
| 5         | Summary of State of Hawai'i and Federal<br>Ambient Air Quality Standards | 30       |
| 6         | Groundwater Sample Results 2014                                          | 42       |
| 7         | Groundwater Samples – Organochlorine Pesticides                          | 45       |
| 8         | Eligible Historic Structures in the Project Area                         | 49       |
| 9         | Limited Phase II Sample Results for Multi-<br>Incremental Soil Samples   | 68       |
| 10        | Distribution of Population by Race                                       | 75       |
| 11        | Past, Present, and Future Actions                                        | 90       |
| 12        | Cumulative Impacts Summary                                               | 92       |
| 13        | Hawai'i State Plan                                                       | 98       |

## APPENDICES

### VOLUME I

APPENDIX A      Pre-Assessment Consultation Comment Letters and Responses

APPENDIX B      Draft Environmental Assessment Comment and Response Letters

### VOLUME II

APPENDIX C      Limited Phase II Environmental Site Assessment

### VOLUME III

APPENDIX D      Kahului Harbor, Historic Resources Evaluation

APPENDIX E      Archaeological Assessment for the Maui Electric Power Plant Subdivision

APPENDIX F      Cultural Impact Assessment

APPENDIX G      Flora and Fauna Inventory

### VOLUME IV

APPENDIX H      Phase I Environmental Site Assessment

APPENDIX I      Environmental Hazard Management Plan – Kahului Harbor, Parcel B

APPENDIX J      Interim Final Area-Wide EHE/EHMP Document, Kahului Harbor Area

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APPENDIX C  
Limited Phase II Environmental  
Site Assessment

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**LIMITED**  
**PHASE II ENVIRONMENTAL SITE ASSESSMENT**

Kahului Harbor Parcel B  
Kahului, Oahu, Hawaii  
TMK (1) 3-7-11: Parcels 17, 19 (portion), and 23

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ETC Project No. 14-2003

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## TABLE OF CONTENTS

|            |                                                   |           |
|------------|---------------------------------------------------|-----------|
| <b>1.0</b> | <b>CERTIFICATIONS AND LIMITATIONS.....</b>        | <b>1</b>  |
| <b>2.0</b> | <b>EXECUTIVE SUMMARY.....</b>                     | <b>2</b>  |
| <b>3.0</b> | <b>INTRODUCTION/PURPOSE.....</b>                  | <b>5</b>  |
| <b>4.0</b> | <b>SITE BACKGROUND.....</b>                       | <b>7</b>  |
| 4.1        | SITE DESCRIPTION AND LAND AREA.....               | 7         |
| 4.2        | SITE MAPPING.....                                 | 7         |
| 4.3        | PROPOSED FUTURE USE.....                          | 7         |
| 4.4        | HISTORY AND LAND USE.....                         | 7         |
| 4.5        | GEOLOGY AND HYDROGEOLOGY.....                     | 7         |
| 4.5.1      | <i>Regional Geology.....</i>                      | <i>7</i>  |
| 4.5.2      | <i>Site Geology.....</i>                          | <i>8</i>  |
| 4.5.3      | <i>Regional Hydrogeology.....</i>                 | <i>8</i>  |
| 4.5.4      | <i>Site Hydrogeology.....</i>                     | <i>8</i>  |
| 4.6        | PREVIOUS ENVIRONMENTAL REPORTS.....               | 9         |
| 4.7        | HISTORIC ENVIRONMENTAL CONCERNS.....              | 10        |
| 4.8        | CONTAMINANTS OF POTENTIAL CONCERN.....            | 11        |
| 4.9        | PROJECT ACTION LEVELS.....                        | 11        |
| <b>5.0</b> | <b>FIELD INVESTIGATION ACTIVITIES.....</b>        | <b>12</b> |
| 5.1        | INTRODUCTION.....                                 | 12        |
| 5.2        | SAMPLE CONTROL SYSTEM.....                        | 13        |
| 5.2.1      | <i>Sample Identification.....</i>                 | <i>13</i> |
| 5.2.2      | <i>Sample Labeling.....</i>                       | <i>14</i> |
| 5.2.3      | <i>Chain of Custody Procedures.....</i>           | <i>14</i> |
| 5.3        | SAMPLING LOCATION AND FREQUENCY.....              | 15        |
| 5.3.1      | <i>Soil Investigation.....</i>                    | <i>15</i> |
| 5.3.2      | <i>Groundwater Investigation.....</i>             | <i>16</i> |
| 5.4        | FIELD METHODS.....                                | 16        |
| 5.4.1      | <i>Surface Soil Sampling and Analysis.....</i>    | <i>16</i> |
| 5.4.2      | <i>Subsurface Soil Sampling and Analysis.....</i> | <i>17</i> |
| 5.4.3      | <i>Groundwater Sampling and Analysis.....</i>     | <i>17</i> |
| 5.5        | SAMPLE PROCESSING AND ANALYSES.....               | 18        |
| 5.6        | DECONTAMINATION.....                              | 18        |
| 5.7        | INVESTIGATION-DERIVED WASTE (IDW).....            | 18        |
| 5.8        | FIELD EQUIPMENT CALIBRATION.....                  | 19        |
| <b>6.0</b> | <b>FINDINGS AND DISCUSSION.....</b>               | <b>20</b> |
| 6.1        | DEVIATIONS FROM THE EKNA'S SITE WORK PLAN.....    | 20        |
| 6.2        | SAMPLE COORDINATES.....                           | 21        |
| 6.3        | PHYSICAL OBSERVATIONS/FIELD SCREENING.....        | 21        |
| 6.4        | ANALYTICAL DATA – SURFACE SOIL.....               | 22        |
| 6.5        | ANALYTICAL DATA – SUBSURFACE SOIL.....            | 23        |
| 6.6        | ANALYTICAL DATA – GROUNDWATER.....                | 23        |
| 6.7        | SUMMARY OF FINDINGS.....                          | 24        |
| <b>7.0</b> | <b>REFERENCES.....</b>                            | <b>25</b> |

## TABLES

|                                                                      |    |
|----------------------------------------------------------------------|----|
| TABLE 1: COC LIST .....                                              | 11 |
| TABLE 2: PHYSICAL OBSERVATIONS/WATER QUALITY DATA - GROUNDWATER..... | 21 |

## APPENDICES

|                                                      |
|------------------------------------------------------|
| APPENDIX 1: SITE PLAN SURVEY                         |
| APPENDIX 2: FIGURES                                  |
| APPENDIX 3: DATA TABLES                              |
| APPENDIX 4: BORING LOGS AND MONITORING WELL DIAGRAMS |
| APPENDIX 5: WATER QUALITY DATA                       |
| APPENDIX 6: GPS DATA                                 |
| APPENDIX 7: LABORATORY RESULTS                       |
| APPENDIX 8: DISPOSAL DOCUMENTATION                   |



## 1.0 CERTIFICATIONS AND LIMITATIONS

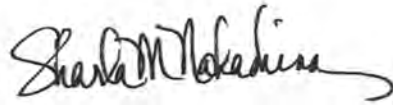
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EnviroServices & Training Center (ETC), LLC has completed this Limited Phase II Environmental Site Assessment (ESA) for the project site. ETC's findings and conclusions presented in this report are professional opinions based solely upon visual observations of the project site, government regulations, and upon interpretation of the laboratory data and field measurements gathered at the time and location of the study.

This report is intended for the sole use and purpose of ETC's Client, exclusively for the project site indicated. The scope of services performed in execution of these site investigation activities may not be appropriate for satisfying the needs of other users, and any use or reuse of this report or the findings and conclusions presented herein is at the sole risk of said user.

ETC makes no guarantee or warranty; either expressed or implied, except that our services are consistent with good commercial or customary practices designed to conform to acceptable industry standards and governmental regulations. No warranty or representation, expressed or implied, is included or intended in its proposal, contracts, or reports. Information stated in this report applies only to the site as outlined and apply to the conditions present at the time of remedial investigation activities.

Prepared By:



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Sharla Nakashima  
Project Manager

## 2.0 EXECUTIVE SUMMARY

EnviroServices & Training Center, LLC (ETC) was contracted by A & B Properties Inc. (Client) to perform Limited Phase II Environmental Site Assessment (ESA) activities at the subject property ("Property"), identified as Tax Map Key (TMK): 3-7-11: Parcels 17, 19 (portion), and 23, located at 140 Hobron Avenue. The Property is bound by Hobron Avenue to the west, Alahao Street to the south, and Amala Road to the east. The Property consists of approximately 11.04 acres of land and is owned by A & B Properties Inc. (A&B). Note that the Royal Order of Kamehameha Property, which occupies approximately 1.2 acres of the Property, was excluded from this investigation due to the fact that this area was reportedly not used for industrial purposes; and current plans indicated that this area will be subdivided from the remainder of the Property.

The purpose of the Limited Phase II ESA activities was to assess the potential contaminants on the Property (less the 1.2 acre portion occupied by the Royal Order of Kamehameha). The current acquisition area is depicted in Appendix II, Figure 2. Specifically, the site investigation was conducted in accordance with Section 5 of the *Site Work Plan, A&B Acquisition Parcel B Phase II ESA*, prepared by EKNA Services Inc. (EKNA). EKNA's work plan included subsurface soil samples collected from 30 to 35 soil borings, groundwater samples collected from five (5) permanent groundwater monitoring wells, and multi-incremental surface soil samples from fifteen (15) surface soil decision unit areas. Note that EKNA's work plan was prepared at the request of, and in accordance with specification provided by, the State of Hawaii – Department of Transportation (DOT), Harbors Division. In addition to those activities described in EKNA's work plan, additional contaminants of potential concern and/or areas of concern were also investigated. Specifically, total petroleum hydrocarbons (TPH) as oil (O) and an expanded polynuclear aromatic hydrocarbon (PAH) list was included in the COPC list; and five (5) discretionary borings were proposed based on historic information provided by A&B. The overall objectives of this Phase II ESA report are to document site investigation activities, present data obtained from the investigation, and to provide recommendations.

The COPC identified for the purposes of this investigation were TPH as diesel (D), TPH - O, TPH as gasoline (G), methyl tertiary-butyl ether/benzene/ toluene/ethylbenzene/xylenes (MBTEX), PAHs, the eight Resource Conservation and Recovery Act (RCRA) metals, and organochlorine pesticides. The media targeted by this investigation were soil and groundwater.

Although not specified in detail as part of EKNA's Site Investigation Work Plan, the fifteen (15) surface soil decision units were established based on the potential impacts associated with the historical Property usage. As such, the following decision units (DU) were established based on source locations: BEI Fertilizer AST area (DU1); Reynolds Recycling occupied area (DU2); Maui Crane occupied area (DU3); DeCoite Trucking baseyard area (DU6); Oil-Water Separator area (DU8); Former bitumuls AST area (DU9 and 10); Former molasses AST area (DU11); Kahului Trucking & Storage occupied area (DU12); Former black oil AST area (DU13); Molasses AST area (DU14 and 15); and all other areas (DU4, 5, and 7). Surface soil samples were analyzed for TPH-D, TPH-O, PAHs, organochlorine pesticides, and RCRA 8 Metals.

Soil borings B1 through B30 were established based on EKNA's Site Boring Plan. Five of these borings (B2, B9, B19, B23, and B30) were completed as 2-inch diameter monitoring wells. Soil borings B31 through B36 were discretionary borings based on BV's Historical

Research Report. Specifically, B31 through B36 were established to investigate the former KT&S UST and associated dispensers (B31/B32); a former cesspool (B33); a former oil pump house (B34); the former bitumuls ASTs (B35); and the potential offsite contaminant migration from adjacent bulk petroleum facilities (B36). Note that B32 was not advanced due to the presence of underground utilities and no sample was collected from B33 due to the physical observations and poor sample recovery. Subsurface soils and groundwater samples were analyzed for TPH-G, TPH-D, TPH-O, MBTEX, PAHs, RCRA 8 Metals, and organochlorine pesticides. Data tables summarizing the analytical results are provided in Appendix 3.

As requested by the DOH, three (3) additional groundwater monitoring wells were installed along the north and northeast boundary of the Property. The groundwater samples were analyzed for TPH-G, TPH-D, TPH-O, MBTEX, PAHs, and RCRA 8 Metals. In addition, two replicate multi-incremental surface soil samples of DU12 were collected for quality control purposes. The replicate samples were analyzed for TPH-D, TPH-O, PAHs, RCRA 8 Metals, and polychlorinated biphenyls (PCBs). Note that PCBs was not part of the original COPC list.

Analytical results were initially compared to Hawaii Department of Health (DOH) – Tier 1 Environmental Action Levels (EALs) for residential (unrestricted) land use in areas where groundwater is not a current or potential drinking water source; and where the nearest surface water body is less than 150 meters from the site. In accordance with EKNA's *Site Work Plan*, provided by the DOT, field replicates were not initially collected; however, based on correspondence with the DOH HEER Office, additional supplemental sampling activities were conducted. Specifically, two field replicate samples were collected for the quality control purposes from DU12. According to A&B, following the initial results in 2014, KT&S was advised of the initial elevated TPH results. KT&S subsequently excavated stained surface soils from DU12. The excavated soils were subsequently profiled and disposed at the Maalaea Demolition and Construction Landfill. As a result, the field replicates collected from DU12 were not suitable for calculation of relative standard deviations (RSDs). Based on telephone correspondence with Mr. John Peard of the DOH HEER Office, relative percent differences (RPDs) were calculated and used to evaluate data precision for the project. The RPDs ranged from 0% to 57%, which generally indicates moderate precision. As such, no additional adjustment to the soil data was required. Furthermore, the replicate data acquired from DU12 also confirms that the previously detected contaminants (i.e. TPH-D, TPH-O, arsenic, and lead) were sufficiently removed. Disposal documentation for the soil excavated from DU12 is provided in Appendix 8.

The Property is currently developed and used for commercial/industrial purposes and there are no plans for residential development or development for use by sensitive receptors (i.e. daycare center, school for children, hospital, etc.). Specifically, future plans are convert the Property into a paved container storage yard in accordance with the current zoning designation. Therefore, this site investigation data evaluation considered the intended commercial/industrial land use. Based on the future commercial/industrial land use, analytical results indicated that TPH-G, MBTEX, PAHs, PCBs, and organochlorine pesticides were either not detected above method detection limits or below their corresponding EAL for all soil and groundwater samples. TPH-D and/or TPH-O were detected in one or more surface soil decision units (DU2, DU3, DU6, DU8, DU9, and DU11) at elevated concentrations exceeded the default commercial/industrial EAL. Lead was detected at 1,400 mg/kg (DU11), which exceeds the corresponding default commercial/industrial EAL. TPH-D and/or TPH-O were detected above the default commercial/industrial EALs in B5, B16, and B24. Groundwater sampling results

indicated that with the exception of the TPH-D, arsenic and silver, all COPCs were either not detected above method detection limits or were below all applicable EALs. Specifically, TPH-D was detected in a B19; arsenic was detected in B2 and B9; and silver was detected in B9 and B30 at elevated concentrations exceeding their corresponding default EALs.

Based on analytical results, contaminants on the Property exceeding commercial/industrial EALs appeared to be primarily TPH-O and TPH-D in the surface and subsurface soils, though other contaminants were found at elevated levels in limited areas. Based on these results coupled with the current and planned future usage of the Property, ETC recommends that an environmental hazard evaluation and/or environmental hazard management plan be conducted and implemented on the Property. While not specifically addressed or targeted as part of this investigation, ETC understands that potential impacts associated with the lead/asbestos-containing coatings on the former fuel oil/molasses tank (within DU11) and two Maui Agricultural Company molasses tanks (within DU14 and DU15) will be investigated and/or addressed in conjunction with future demolition activities.

### 3.0 INTRODUCTION/PURPOSE

---

EnviroServices & Training Center, LLC (ETC) was contracted by A & B Properties Inc. (A&B), to complete a Limited Phase II ESA for the approximate 10.5-acre Property, identified as Tax Map Key (TMK) 2-3-7-11: Parcels 17, 19 (portion), and 23, located at 140 Hobron Avenue in Kahului, Maui, Hawaii (Figure 1).

The overall objective of the site investigation was to determine whether contaminants of potential concern (COPC) concentrations exceed appropriate risk-based action levels. The COPC investigated were established based on historic land use and results from previous environmental investigations. Note that the approximate 1.2-acre area occupied by the Royal Order of Kamehameha was excluded from this investigation due to the fact that this area was reportedly not used for industrial purposes; and current plans indicate that this area will be subdivided from the remainder of the Property. The current acquisition area is depicted in Appendix II, Figure 2

This report presents the site plan survey of the Property; and ETC's findings during soil and groundwater sampling activities at the Property. The data obtained during the investigation will help determine whether additional investigation and/or corrective actions are warranted, based on and in accordance with the *Site Work Plan, A&B Acquisition Parcel B Phase II ESA*, prepared by EKNA Services Inc. (EKNA) for the Property. Note that EKNA's *Site Work Plan* was provided to A&B by the Department of Transportation (DOT). This Limited Phase II ESA was conducted in general accordance with the November 2008 Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Office's Interim Final *Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan*, herein referred to as the HEER TGM; and the DOH's Fall 2017 *Evaluation of Environmental Hazards at Sites with Contaminated Soil and Groundwater*, herein referred to as the EHE Document.

Specifically, the following tasks were completed:

- Retained a licensed professional land surveyor to conduct a site plan survey of the Property to include property lines and surface features such as buildings, tanks, walls, walkways, and fences. The site plan survey was conducted and prepared by Austin, Tsutsumi & Associates, Inc. (ATA).
- Identified and demarcated up to thirty-six (36) shallow boring locations, the eight groundwater monitoring well locations, and the fifteen (15) surface soil sampling decision units.
- Subcontracted GeoTek Hawaii, Inc. (GTH) to identify potential underground utility lines in the vicinity of the soil borings and monitoring well locations using electromagnetic instrumentation and/or ground penetrating radar.
- Mobilized a team of environmental scientists to conduct multi-incremental surface soil sampling, subsurface soil sampling, and groundwater sampling activities.
- Collected two (2) field replicate multi-incremental surface soil samples from one of the fifteen decision units.
- Subcontracted GTH to utilize direct-push technology sampling techniques to obtain subsurface soil samples and install groundwater monitoring wells.



- Installed three (3) 2-inch diameter groundwater monitoring wells; and converted five (5) boreholes into permanent, 2-inch diameter groundwater monitoring wells with traffic rated covers.
- Submitted the fifteen (15) multi-incremental surface soil samples to Accutest Laboratories - Northern California (ALNC) for multi-incremental sample preparation in accordance with the HEER TGM. Directed the laboratory to analyze the multi-incremental soil samples for total petroleum hydrocarbons (TPH) as diesel (TPH-D), TPH as oil (O), polynuclear aromatic hydrocarbons (PAHs), the eight Resource Conservation and Recovery Act (RCRA) metals, and organochlorine pesticides on a standard turn around time.
- Submitted thirty-three (33) discrete subsurface soil samples and five (5) groundwater samples to ALNC for analysis of TPH as gasoline (TPH-G), TPH-D, TPH-O, methyl tertiary butyl ether/benzene/toluene/ethylbenzene/xylenes (MBTEX), PAHs, RCRA8 metals, and organochlorine pesticides on a standard turn around time..
- Submitted five (5) groundwater samples to ALNC for analysis of TPH as gasoline (TPH-G), TPH-D, TPH-O, methyl tertiary butyl ether/benzene/toluene/ethylbenzene/xylenes (MBTEX), PAHs, RCRA8 metals, and organochlorine pesticides on a standard turn around time.
- Submitted the two (2) multi-incremental replicate surface soil samples to Advances Analytical Laboratory (AAL) for multi-incremental sample preparation in accordance with the HEER TGM. Directed the laboratory to analyze the multi-incremental soil samples for TPH-D, TPH-O, PAHs, PCBs, and RCRA 8 metals on a standard turn around time.
- Submitted two (2) groundwater samples to AAL for analysis of TPH-G, TPH-D, TPH-O, methyl tertiary butyl ether/benzene/toluene/ethylbenzene/xylenes (MBTEX), PAHs, and RCRA8 metals on a standard turn around time. Note that one of the three wells was not sampled due to poor water recovery.
- Prepared this Limited Phase II ESA report summarizing the soil and groundwater investigation, including identification of sample locations on the site plan and comparison of analytical data to default DOH Environmental Action Levels (EALs).

## **4.0 SITE BACKGROUND**

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### **4.1 Site Description and Land Area**

The Property is currently owned by A&B and consists of TMK Nos. (2) 3-7-11: Parcels 17, 19 (portion), and 23. The Property is located at 140 Hobron Avenue, bound by Hobron Avenue to the west, Alahao Street to the south, and Amala Road to the east. The Property consists of approximately 11.04 acres of land. The Royal Order of Kamehameha property, which occupies approximately 1.2 acres of the Property, was excluded from this investigation due to the fact that this area was reportedly not used for industrial purposes; and current plans indicated that this area will be subdivided from the remainder of the Property.

Currently, there are tenants operating various businesses on the Property. These businesses' use of the Property include trucking, recycling, vehicle and heavy equipment maintenance operations, offices, parking, and storage.

Ground surface at the Property does not exhibit a discernible gradient. The Property is situated at an elevation of approximately 5 feet above mean sea level (msl). The nearest surface water body is the Kahului Harbor located approximately 200-feet north of the Property.

### **4.2 Site Mapping**

ETC retained a licensed professional land surveyor to conduct a site plan survey of the Property to include property lines and surface features such as buildings, tanks, walls, walkways, and fences. Note that detailed information including, but not limited to, spot elevations, contours, underground/overhead utility locations, utility invert elevations, and vegetation were excluded. The site plan survey was conducted and prepared by Austin, Tsutsumi & Associates, Inc. (ATA). The Site Plan Survey is included in Appendix 1 and the corresponding CAD file is provided as attachment to this report.

### **4.3 Proposed Future Use**

The proposed future use of the Property is to continue commercial / light industrial uses.

### **4.4 History and Land Use**

The Property has been used for commercial and light industrial operations since the early 1900s.

### **4.5 Geology and Hydrogeology**

#### **4.5.1 Regional Geology**

The island of Maui is the second largest of the Hawaiian Islands. Maui consists of two shield volcanoes with a connecting isthmus. The volcanic rocks of the West Maui Mountains (West Maui Volcano) are divided into three series. The oldest is the Wailuku Volcanic Series, followed by the Honolua and Lahaina Volcanic Series. The Wailuku Series built the major shield volcano comprised of basaltic lava flows and associated pyroclastic deposits. The Lahaina Series then covered the western slopes of the West Maui Volcano.

The Haleakala Volcano last erupted around 1790 and is presently dormant. The shield of the volcano is composed of a'a and pahoehoe lava flows of the olivine, olivine basalt, and oceanite known as the Honomanu Volcano Series. The Kula Volcanic Series overlays the Honomanu Series and is comprised of hawaiite, alkalic olivine basalt, and ankaramite. Lava flows from the Haleakala volcano formed the Maui Isthmus and are made up of permeable basalt and erosional deposits (Macdonald, et al., 1983).

#### **4.5.2 Site Geology**

The soil at the Subject Property is mapped as Fill land (Fd). Fd consists of areas filled with bagasse and slurry from sugar mills. A few areas are filled with material from dredging and from soil excavations. These materials are generally dumped and spread over marshes, low-lying areas along the coastal flats, coral limestone, or areas shallow to bedrock. This land type is mostly used for the production of the sugarcane (USDA, 1972).

#### **4.5.3 Regional Hydrogeology**

Basal groundwater is formed by rainwater percolating down through the residual soils and permeable volcanic rock. All of the island situated below sea level, except within rift zones of the volcanoes, is saturated with ocean salt water and thus forms a basal lens called the "Ghyben-Herzberg" lens. A zone of transition between the fresh groundwater and the ocean salt water occurs due to the constant movement of the interface as a result of tidal fluctuations, seasonal fluctuations in recharge and discharge and aquifer development (Macdonald, et al., 1983).

Downward percolation of rainwater may be stopped by impermeable layers such as dense lava flows, alluvial clay layers and volcanic ash. The groundwater then forms a perched or high level aquifer, which is not in contact with salt water. Recharge of the aquifer occurs in areas of high rainfall, which are the interior mountainous areas. The groundwater flows from the recharge areas to the areas of discharge along the shoreline. Frictional resistance to groundwater flow causes it to pile up within the island until it attains sufficient hydraulic head to overcome friction. Thus, basal groundwater tends to slope toward the shoreline.

#### **4.5.4 Site Hydrogeology**

The site is underlain by the Kahului Aquifer System, which is part of the Central Aquifer Sector on the island of Maui. The aquifer is classified by Mink and Lau, 1990, with the system identification number 60301116 (12211). This system includes an unconfined basal aquifer in sedimentary (nonvolcanic) lithology. The aquifer is described as a currently used, ecologically important water source, containing groundwater with a low salinity (250 to 1,000 mg/l Cl<sup>-</sup>). It is also described as irreplaceable with a high vulnerability to contamination.

The site is further underlain by a second aquifer of the same system. The aquifer is an unconfined, basal aquifer in flank compartments, and is classified with the system identification number 60301111 (12212). The aquifer is described as a currently used, ecologically important water source, containing groundwater with a low salinity (250 to 1,000 mg/l Cl<sup>-</sup>). It is also described as irreplaceable with a moderate vulnerability to contamination (Mink and Lau, 1990).



The Property is located below the Underground Injection Control (UIC) line and the groundwater is not considered a drinking water resource. Therefore, the DOH Environmental Action Levels (EALs) for soil in areas where groundwater is not a current or potential drinking water source and where the nearest surface water body is less than 150 meters from the site will be used as a reference.

#### **4.6 Previous Environmental Reports**

Walker Consultants, Ltd. (WCL) conducted a *Site Assessment Report* in October 2000 to investigate Tosco's black oil AST located on Parcel 23. A total of fifty-three soil samples and three caprock groundwater samples were collected from twenty-eight soil borings/sampling points. The sampling points were situated within and surrounding the former AST; and in the vicinity of the loading rack. Analytical results indicated that petroleum related constituents were detected in several soil samples and one grab caprock groundwater sample. Elevated concentrations of petroleum related constituents were generally located on the southeast portion of the former AST site and the loading rack area. Investigation maps indicated that there were several underground pipelines traversing the south portion of the former AST site and the loading rack area. Based on the analytical results, WCL suspected that the identified petroleum impacts were likely due to leakage from the abandoned pipelines in the vicinity of the former AST (WCL, 2000). WCL's investigation included both near surface and subsurface soil samples. A limited volume of impacted surface soils were excavated; however, WCL concluded that the impacted soils likely remain at the bottom of these limited excavations (WCL, 2000). Based on ETC's review of WCL's site maps, boring B24 of ETC's investigation was situated east and adjacent to the former AST site and located in close proximity to the historic pipelines noted by WCL.

Two former molasses ASTs are located within DU14 and DU15; and a former fuel oil/molasses AST is located within DU11. A hazardous materials inspection identified deteriorated lead and asbestos-containing coatings on each of the three tanks. Potential impacts to surrounding soils from these coatings will reportedly be investigated and/or addressed in conjunction with future demolition activities.

Two ASTs containing liquid asphalt/bitumen (bitumuls) were reportedly abandoned on the Property by a former tenant, Hawaiian Bitumuls and Paving Company (HBPC). These tanks were located within DU9. In November 1998, one of the tanks reportedly failed, releasing residual contents to the surrounding soil. The release was reported to the DOH HEER Office by A&B, and HBPC reportedly cleaned up the spill and removed the failed tank. Analysis of the spilled bitumuls indicated the presence of elevated levels of TPH but no detectable PAHs were reported. In 2006, A&B requested a no further action (NFA) determination for the 1998 release, but noted that a second bitumuls AST remained on the site and was planned for removal. These plans were delayed when no on-island disposal site could be identified for the remaining bitumuls; as a consequence, remnants of the tank and its contents are still on the Property and the NFA request remains pending. Disposition of the former bitumuls AST and any remaining bitumuls will be addressed in future documents.

A *Phase I Environmental Site Assessment Report*, dated January 13, 2012, was performed by Kevin S. Kennedy Consulting, LLC (KSK). KSK's Phase I ESA identified numerous RECs in connection with the Property (KSK, 2012). The RECs generally pertained to current and historic operations on the Property as well as adjacent and nearby properties; and observed storage practices and conditions. Although Parcel 23 (former Tosco AST site) was not included in KSK's January 2012 Phase I ESA, KSK's *Additional Parcel Inclusion* addendum letter, dated March 16, 2012 indicated that the 'same conclusions' would have been reported (KSK, 2012).

In January 2014, Bureau Veritas North America, Inc. (BV) completed a *Historical Research Report* for the Property. The purpose of the historical research was to identify and document parties whose current or historical operations may have caused or contributed to the suspect petroleum impacts on the Property (BV, 2014). Based on ETC's review of the BV's *Historical Research Report*, the following potential sources of petroleum impacts were identified: 1) former UST and dispensers; 2) seepage pit (former cesspool); 3) former oil pump house; 4) former bitumuls ASTs; and 5) potential for contaminant migration from off-site bulk petroleum storage facilities located south of the Property. The historical pipelines were also identified as a source of potential petroleum contamination. Although not specified targeted as part of this investigation, several borings were situated along or in the vicinity of these historic pipelines. The known historic pipelines are mapped in Figure 3. In addition, the surface soil decision units (DUs) were also situated and/or demarcated based on the BV's report findings.

#### **4.7 Historic Environmental Concerns**

The Property has been used for commercial and light industrial purposes since the early 1900s. The current and former bulk molasses ASTs were and are associated with the KT&S operations. Note that although the current molasses handled at the Property is produced by HC&S, historically, molasses produced by other Maui sugar mills was also handled at the Property. Since the 1940s, operations on the Property have included maintenance, repair, and fueling. Specifically, the Property was historically used for petroleum storage and there are existing historic petroleum pipelines on the Property (Figure 3). Based on the historic and current operations, the environmental concerns include pesticides and petroleum related products.

#### 4.8 Contaminants of Potential Concern

The contaminants of potential concern (COPC) identified in EKNA's Site Work Plan included pesticides, gasoline and diesel-related products, and metals. The COPC were selected based on EKNA's Site Work Plan. Note that TPH-O was added to the COPC list based on the historical usage and operations at the Property. In addition, EKNA's work plan only specified acenaphthene, benzo(a)pyrene, fluoranthene, and naphthalene; however, an expanded PAH list was used for this project (16 DOH PAHs plus 1- and 2-methylnaphthalenes). The specific contaminants are listed in Table 1 below.

Table 1: COC List

| Constituent                                           |
|-------------------------------------------------------|
| <b>RCRA 8 Metals</b>                                  |
| <i>Arsenic</i>                                        |
| <i>Barium</i>                                         |
| <i>Cadmium</i>                                        |
| <i>Chromium</i>                                       |
| <i>Lead</i>                                           |
| <i>Mercury</i>                                        |
| <i>Selenium</i>                                       |
| <i>Silver</i>                                         |
| <b>Organochlorine Pesticides</b>                      |
| <b>Total Petroleum Hydrocarbons</b>                   |
| <i>TPH as gasoline (G)</i>                            |
| <i>TPH as oil (O)<sup>1</sup></i>                     |
| <i>TPH as diesel (D)</i>                              |
| <b>Polychlorinated Biphenyls (PCBs)<sup>1</sup></b>   |
| <b>Volatile Organic Compounds (VOCs)<sup>2</sup></b>  |
| <i>Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)</i> |
| <i>Methyl tertiary-butyl ether (MtBE)</i>             |
| <i>VOCs (Full List)<sup>3</sup></i>                   |
| <b>Polynuclear Aromatic Hydrocarbons (PAHs)</b>       |

1- TPH-O and PCBs were not included as part of EKNA's COC List

2- Volatile constituents were excluded for surface soil sampling analyses.

3- VOCs in the groundwater were limited MW6 and MW8 (see Section 5.4.3)

#### 4.9 Project Action Levels

All contaminant concentrations were compared to DOH EALs for residential (unrestricted) land use in areas where groundwater is not a current or potential drinking water source and where the nearest surface water body is less than 150 meters from the site. Currently, the Property is developed and used for commercial/industrial purposes and there are no plans for residential development or development for use by sensitive receptors (i.e. daycare center, school for children, hospital, etc.). Future plans are to continue use of the Property for commercial/industrial purposes indefinitely in accordance with the current zoning designation. Therefore, this site investigation also included an evaluation of the data was based on the intended commercial/industrial land use.

## 5.0 FIELD INVESTIGATION ACTIVITIES

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### 5.1 Introduction

In order to minimize the occurrence of decision errors, a statistics-based sampling design was selected to generate data that provides an effective representation of existing average COPC concentrations at the Property. The sampling design was based on the EKNA's Site Work Plan for the Property, in which the primary populations of interest for the sampling activities were identified as follows:

- Surface soils, defined as the top 2- to 4-inches of soil throughout the Property.
- Subsurface soils, defined as soils at depths greater than 1-foot below ground surface (bgs), in select areas of the Property.
- Groundwater throughout the Property.

A multi-increment (MI) sampling approach was established and used for the collection and analysis of surface soil samples throughout the Property. A biased sampling approach was used for subsurface soil samples for select areas of the Property. The borings and groundwater monitoring well locations were based on EKNA's Site Boring Plan. The MI decision units were constrained laterally by the current/historical usage and/or physical features such as paved areas, buildings, structures, streets and roads. Note that the paved areas are assumed to be of similar usage to the immediately adjacent non-constrained areas (i.e. unpaved, etc.). As such, the conditions in the soils within the constrained areas are anticipated to be similar to the findings within the non-constrained area of the DUs as well as the adjacent soil borings.

Multi-increment sampling is a method employed to obtain representative samples that exhibit average concentrations of the material being sampled and that account for the variability of concentrations within that particular material. Such a method was adopted by the DOH to provide accurate (closeness of the sample value to its actual value) and precise (closeness of repeated sample values, or repeatability) data. If data is considered sufficiently accurate and precise, then the data can be considered reliable estimates of the true concentrations.

Sampling accuracy is usually achieved by some type of random sampling. In random sampling, every unit in the population has an equal chance of being sampled and measured. Consequently, statistics generated by the sample (i.e., mean and standard deviation of the mean) are unbiased (accurate) estimators of true population parameters – in other words, the sample is representative of the population.

Sampling precision is commonly achieved by taking an appropriate amount of samples from the population. By looking at the equation for the standard deviation of the mean of a sample (standard error of the mean), precision increases (variability decreases) as the number of samples increase, although it is not a 1 to 1 relationship. Another method to increase the sampling precision is to increase the physical size (weight or volume) of the samples that are collected and analyzed. This technique has the effect of minimizing between-sample variation and decreasing the standard deviation of the mean of the sample. Increasing the number of samples collected and/or the size of the samples from a population not only increases sampling precision, it also has the secondary effect of increasing sampling accuracy.

The multi-increment sampling technique takes into account the need for sufficiently accurate and precise sample data. The technique includes requirements for: 1) collection of random samples; 2) collection of a larger number of samples; and 3) collection of a physically larger sample volume than standard discrete sampling techniques.

## **5.2 Sample Control System**

The sample control system includes the methods used to identify, label, transport, and maintain the integrity of samples. The following subsections describe the sample control system that was used for this field investigation.

### **5.2.1 Sample Identification**

This sample identification, or sample naming, procedure describes the naming convention for samples collected and analyzed during sampling activities.

For multi-increment soil samples, the following format was used:

AAAA.B where:

|      |   |                                                    |
|------|---|----------------------------------------------------|
| AAAA | = | ETC four digit project no. (2003 for this project) |
| B    | = | decision unit designation (i.e. SS1, SS2, etc.)    |

For discrete subsurface soil samples, the following format was used:

AAAA.B.C where:

|      |   |                                                  |
|------|---|--------------------------------------------------|
| AAAA | = | four digit project no. (2003 for this project)   |
| B    | = | boring sample point location (i.e. B1, B2, etc.) |
| C    | = | depth in inches at which sample was collected    |

For groundwater samples, the following format was used:

AAAA.B.GW where:

|      |   |                                                |
|------|---|------------------------------------------------|
| AAAA | = | four digit project no. (2003 for this project) |
| B    | = | boring location (i.e. B2, B9, etc.)            |



### **5.2.2 Sample Labeling**

A sample label with adhesive backing was affixed to each sample container where feasible. The following information was recorded with indelible ink on each label:

- Project Name
- Sample ID number
- Date and time of collection
- Sampler initials
- Analysis to be performed

The labels were provided by the contracted analytical laboratory.

### **5.2.3 Chain of Custody Procedures**

Chain of custody procedures are designed to ensure that the integrity of the samples is maintained through collection, transfer, analysis, and disposal. Custody of samples was maintained in accordance with applicable chain of custody guidelines. A sample was said to be in custody if:

- It is in one's actual physical possession or view
- It is in one's physical possession and has not been tampered with (i.e., it is under lock or official seal)
- It is retained in an area with secure access

Field personnel logged individual samples onto carbon chain of custody forms. These forms also served as the request for analyses. The following information was recorded on the chain of custody:

- Sample ID number
- Matrix
- Date and time of collection
- Number and type of containers
- Analytical method to be performed
- Number of pages in chain of custody

Samples were hand-delivered to ALNC's Service Center located in Honolulu, Hawaii. All appropriate U.S. Department of Transportation (US DOT) regulations (e.g., 49 CFR 171-179) were followed in the shipment of environmental samples.

### 5.3 Sampling Location and Frequency

#### 5.3.1 Soil Investigation

This soil investigation was performed by utilizing the current uses of the Property and existing Property usage maps from historic reports to divide the Property into fifteen (15) surface soil decision units (Figure 5). Note that the Royal Order of Kamehameha Property was excluded from the soil investigation areas due to the fact that this area was reportedly not used for industrial purposes; and current plans indicated that this area will be subdivided from the remainder of the Property. Based on the population of interest and potential source areas identified for this project, surface soil decision units were established as follows.

- Decision Unit 1: BEI Fertilizer AST area.
- Decision Unit 2: Reynolds Recycling occupied area.
- Decision Unit 3: Maui Crane occupied area.
- Decision Unit 4: Lengo Construction, Inc. (subtenants: BioBeetle, Maui Recycling, sail board shop).
- Decision Unit 5: Lengo Construction, Inc. (subtenant: Cruiser Phil's Volcano Riders)
- Decision Units 6: DeCoite Trucking area.
- Decision Unit 7: DeCoite Trucking area (a portion subleased to concrete forming operation)
- Decision Unit 8: Oil-Water Separator area.
- Decision Unit 9 and 10: Former bitumuls AST area.
- Decision Unit 11: Former fuel oil/molasses AST area.
- Decision Unit 12: Kahului Trucking & Storage occupied area.
- Decision Unit 13: Former black oil AST area.
- Decision Unit 14 and 15: Molasses AST area.

The soil borings (i.e. B1 through B30) were situated as noted in EKNA's Site Boring Plan. Soil borings B31 through B36 were discretionary borings based on the Historical Research Report prepared by Bureau Veritas North America, Inc. (BV, 2014). Specifically, B31 through B36 were established as follows:

- B31/B32: Former UST and dispensers.
- B33: Seepage Pit (former cesspool).
- B34: Former Oil Pump House.
- B35: Former Bitumuls ASTS.
- B36: Potential for contaminant migration from off-site bulk petroleum storage facilities to the south.

Historical pipelines were also identified as a source of potential petroleum contamination. And although not specifically targeted as part of this investigation, several borings were situated along or in the vicinity of the historic pipelines. The historic pipelines are mapped in Figure 3 and are also show in Figures 2, 4, and 5.

### **5.3.2 Groundwater Investigation**

A total of five (5) borings were converted into 2-inch diameter monitoring wells. The borings selected for conversion were biased locations as noted in EKNA's Site Boring Plan. In addition, based on recommendations from the DOH HEER Office, three additional 2-inch diameter groundwater monitoring wells were installed along the north and northeast border of the Property. Depth to groundwater ranged from 4 to 7 feet bgs.

## **5.4 Field Methods**

This section provides information regarding specific field methods that ETC employed to complete sampling activities. The activities described herein were performed in general accordance with the HEER TGM.

### **5.4.1 Surface Soil Sampling and Analysis**

Collection of incremental samples was performed in a stratified, random manner (i.e., collect incremental samples from random locations within each decision unit, but ensuring that each portion of the decision unit is represented) within each decision unit. ETC personnel conceptually subdivided each decision unit and collected a proportional amount of increments from each area. ETC personnel used new and pre-cleaned stainless steel trowels to collect soil increments from 50 locations in each decision unit. All soil increments were placed into new, resealable polyethylene bags dedicated to each multi-increment sample. In addition to the 15 primary samples, two field replicate MI samples were collected from one of the primary DUs for field quality control methods (2003.SS16 and 2003.SS17). Each multi-increment sample consisted of an approximate 1 to 2 kg of soil. Prior to handling any soil, ETC personnel donned a new pair of disposable gloves (latex/vinyl/nitrile). Gloves were interchanged prior to collection of each multi-increment sample.

All sample containers were labeled with the project name, sample identification number, date/time of sample collection, and sampler's initials. The samples were kept in a sample cooler with ice pending delivery to the contracted laboratory.

ETC delivered samples to the contracted laboratory with a completed chain of custody documentation. ETC instructed the contracted laboratory to perform multi-incremental subsampling in accordance with the HEER TGM and EHE document. This includes air-drying, sieving, and obtaining representative subsamples using either an appropriate mechanical splitter or through multi-incremental sampling protocols. Specifically, each multi-increment sample was air-dried, sieved to less than 2-millimeters in particle size, and representatively sub-sampled. Note that in accordance with the HEER TGM, the mass of sample to be analyzed via EPA Method 6010B/7000 Series was modified from 1-gram to 10-grams.



#### ***5.4.2 Subsurface Soil Sampling and Analysis***

Discrete subsurface soil samples were collected using a direct-push technology rig, specifically the GeoProbe (or similar) system operated by GTH. ETC collected one (1) soil sample per boring location between 3 to 5 feet bgs. In general, unless otherwise noted, subsurface samples were collected from the unsaturated soils above the capillary fringe. In addition, field screening methods, such as visual/olfactory observations and the use of a photoionization detector (PID) were used to make qualitative determinations whether subsurface soils had been impacted, specifically by petroleum COPC.

The samples were collected in new, laboratory-provided sample containers (EnCore® or similar sampler for volatile organic compound analysis, glass jars for other analytes). Prior to handling any soil, ETC personnel donned a new pair of disposable gloves (latex/vinyl/nitrile). Gloves were interchanged prior to collection of each sample.

All sample containers were labeled with the project name, sample identification number, date/time of sample collection, and sampler's initials. The samples were kept in a sample cooler with ice pending delivery to the contracted laboratory.

#### ***5.4.3 Groundwater Sampling and Analysis***

ETC installed a total of eight (8) 2-inch diameter monitoring wells throughout the Property. Detailed well construction information is provided in Appendix 4. In general, each well consisted of slotted PVC screen and solid PVC riser. A sand filter was placed around the monitoring well with a bentonite seal and each monitoring well was completed to the ground surface with a well vault/traffic rated cover and concrete. Note that although saturated soil was observed during the well boring advancement of MW7, no water was observed within the well following well installation. MW7 was installed at a depth of 11 feet bgs and previous investigations suggest that groundwater it anticipated between 5- to 8- feet bgs. Subsequently, MW7 was returned to 24-hours later; however, no water was observed. As such, ETC was unable to collect a sample from MW7. Immediately after installation, the monitoring wells were developed using a disposable bailer and the purged groundwater was placed into a 55-gallon drum. Following well development, the groundwater monitoring wells were subsequently sampled. Groundwater sampling was performed using a water level indicator in conjunction with the low-flow submersible pump. Field personnel ensured that the pump intake was placed near the upper-middle portion of the well screen in order to ensure sufficient communication with the aquifer formation and to minimize the introduction of suspended solids that may have accumulated at the bottom of the well. The groundwater samples were placed into new, laboratory-provided sample containers. The sample containers were labeled and placed in a designated sample cooler with ice pending delivery to the laboratory.

Personnel collecting the groundwater samples donned a new pair of disposable latex gloves at each sample location. Only new or laboratory-cleaned sample containers were used to collect groundwater samples.

## **5.5 Sample Processing and Analyses**

Initial investigative efforts included the delivery of a total of fifteen (15) multi-increment soil samples, thirty-three (33) discrete soil samples, and five (5) groundwater samples to ALNC in San Jose, California with completed chain of custody documentation. ETC instructed ALNC to perform multi-increment subsampling in accordance with the HEER TGM which includes air-drying, sieving, and obtaining representative subsamples using either an appropriate mechanical splitter or through multi-increment protocols. ALNC was then instructed to analyze the processed soil samples for select constituents. The discrete soil samples and groundwater samples were processed and analyzed in accordance with their corresponding EPA analytical methods. ALNC was also instructed to filter the groundwater samples at the laboratory using at 0.45 micron filter prior to performing metal analyses.

Subsequent supplemental investigation efforts included the delivery of a the two (2) multi-increment replicate soil samples and three (3) additional groundwater samples to AAL in Honolulu, Hawaii with completed chain of custody documentation. ETC instructed AAL to perform multi-increment subsampling in accordance with the HEER TGM which includes air-drying, sieving, and obtaining representative subsamples using either an appropriate mechanical splitter or through multi-increment protocols. AAL was then instructed to analyze the processed soil samples for select constituents. All samples were processed, extracted, and analyzed within the appropriate method hold times.

## **5.6 Decontamination**

Re-useable sampling tools, such as stainless steel trowels, drill bits, chisel bits, and split spoon samplers were decontaminated by washing with a brush and potable water - Alconox™ solution, rinsing with potable water, then rinsing with distilled water. Whenever possible, spray bottles were used to perform decontamination procedures in order to minimize the volume of decontamination fluids generated. Decontamination fluids were allowed to drip directly onto the ground surface.

Any disposable sample collection equipment (i.e., used PPE, disposable gloves, etc.) were containerized at the end of each work day and disposed as solid waste.

## **5.7 Investigation-Derived Waste (IDW)**

IDW included soil excavated during drilling, disposable personal protective equipment (PPE), disposable sampling equipment, decontamination fluids, purge water, and any other material that may have come in contact with potentially contaminated materials. IDW generated on-site were handled as follows:

- Used PPE and disposable sampling equipment (i.e., latex gloves, bailers) were disposed as solid waste.
- Soil from borings were returned to the source after sampling.
- Decontamination fluids and groundwater purged from the monitoring wells were placed into 55-gallon drum(s).

## 5.8 Field Equipment Calibration

All direct reading field instruments were calibrated at the beginning of the work day or as recommended by the manufacturer. Calibration served as a quality assurance (QA) check on the equipment. Calibration procedures for the field equipment were performed according to specifications provided in the equipment operation manuals.

Field personnel used the following direct reading field instruments for this investigation:

- RAE Systems MiniRAE 2000 Portable VOC Monitor (Model PGM-7600) PID – calibrated using 100-ppm isobutylene standard.
- Horiba U-52 Multi-Parameter Water Quality Checker – calibrated using AutoCal Solution (pH = 4.0, turbidity = 0.0 NTU, conductivity = 4.49 mS/cm) and/or Buffer Solution (pH=4.0).
- Solinst Canada Ltd. Water Level Indicator Model 101 – no calibration necessary.

## 6.0 FINDINGS AND DISCUSSION

Field investigation activities were performed to identify the extent of COPC concentrations in the soil and groundwater. A total of thirty-three discrete soil samples, fifteen multi-increment soil samples, five groundwater samples were collected during the site investigation.

### 6.1 Deviations from the EKNA's Site Work Plan

A number of deviations were made from the EKNA's *Site Work Plan*. During investigation activities, field conditions precluded boring advancement at specific coordinates due to the presence of physical obstructions (i.e. potential underground and overhead utility lines and difficult geological conditions). In these cases, boring locations were moved and documented; or no samples were collected. ETC believes that the assessment data was not significantly impacted by these deviations. In addition, TPH-O and an expanded PAH list was included in the COPC list; and five (5) discretionary borings were proposed based on historic information provided by A&B. A summary of the deviations is provided below.

- TPH-O was added to the COPC list for all soil and groundwater samples.
- 16 DOH PAHs list (including methylnaphthalenes) was included on the COPC list for all soil and groundwater samples.
- B9 – Relocated north of the original boring/monitoring well location due to utility clearance issues and overhead obstructions (i.e. tree).
- B11 – Relocated to the north within the Property boundary. Note that EKNA boring was located outside of the actual Property boundary.
- B20 to B23 – Relocated due to drill rig accessibility. Note that B23 is a monitoring well which was moved east to allow for drill access.
- B24 to B28 – Relocated outside of the fence/bermed area due to drill rig accessibility.
- B29 – Relocated east of original boring located due to utility clearance issues.
- B31 and B32 – Discretionary borings to investigate former UST and associated dispensing pump. Utility clearance activities indicated that there were numerous underground utilities and anomalies in the vicinity of these borings, therefore, the borings were combined and only B31 cleared and advanced.
- B33 – Discretionary boring to investigate current seepage pit area. Note that during drilling activities a seepage pit was apparently encountered, therefore, no samples were collected for B33.
- B34 – Discretionary boring to investigate potential impacts associated with the former oil pump house.
- B35 – Discretionary boring to investigate impacts associated with the former bitumuls AST.
- B36 – Discretionary boring to investigate potential for contaminant migration from off-site bulk petroleum storage facilities south of the Property.
- Two field replicate multi-incremental surface soil samples were collected from DU12 for quality control and soil confirmation purposes.

- The two field replicates were analyzed for PCBs.
- Three additional groundwater monitoring wells were installed along the north and northeast boundary of the Property.
- The additional groundwater monitoring wells (MW6 and MW8) were sampled for VOCs. Note that the additional analysis was included based on discussions with Mr. John Peard of the DOH HEER Office.

## 6.2 Sample Coordinates

ETC utilized a Trimble GeoExplorer® 2005 series, GeoXT GPS unit to document decision unit boundaries as well as the boring and monitoring well locations. The coordinates were documented using the State Plane coordinate system referencing the North American Datum (NAD), 1983. GPS data is included in Appendix 6.

## 6.3 Physical Observations/Field Screening

Physical observations of the surface soils were made during sampling activities. In general, the soil throughout the Property was comprised of a brown fill and sand. Physical observations of the subsurface soil were made during boring advancement and are presented in the boring logs and monitoring well diagrams included in Appendix 4. Field water quality data is included Appendix 5. Physical observations of the groundwater and average water quality data are presented in Table 2. Note that the groundwater wells were installed and immediately developed and sampled. Therefore, turbidity was variable throughout the wells. Although elevated turbidity (i.e. >10 NTU) was noted in most of the wells, field measurements indicate that the wells appeared to have stabilized during sample collection. In addition, groundwater samples were not filtered in the field.

**Table 2: Physical Observations/Water Quality Data - Groundwater**

| Sample ID          | Depth to GW (ft) | Well Depth (ft) | Temp. (°F) | Conductivity (mS/cm) | pH   | Turbidity (NTU) | Notes                                    |
|--------------------|------------------|-----------------|------------|----------------------|------|-----------------|------------------------------------------|
| 2003.B2.GW (MW1)   | 4.5              | 11              | 82.3       | 6.22                 | 8.23 | 66.79           | Sampled on 5/6/14.                       |
| 2003.B9.GW (MW2)   | 6.8              | 11              | 80.0       | 8.79                 | 8.17 | 62.44           | Sampled on 5/6/14.                       |
| 2003.B19.GW (MW3)  | 5.88             | 11              | 82.4       | 8.97                 | 7.83 | 45.14           | Sampled on 5/6/14.                       |
| 2003.B23.GW (MW4)  | 5.88             | 11              | 79.9       | 10.3                 | 8.31 | 117.41          | Sampled on 5/6/14.                       |
| 2003.B.30.GW (MW5) | 7.88             | 12              | 80.5       | 4.29                 | 8.69 | 8.76            | Sampled on 5/7/14.                       |
| 2003.MW6.GW (MW6)  | 6.6              | 11              | 80.0       | 9.10                 | 8.29 | 781             | Sampled on 6/6/18.                       |
| 2003.MW7.GW (MW7)  | --               | 11              | --         | --                   | --   | --              | No water in well following installation. |
| 2003.MW8.GW (MW8)  | 5.8              | 11              | 84.4       | 2.62                 | 7.73 | 200             | Sampled on 6/6/18.                       |



#### 6.4 Analytical Data – Surface Soil

Laboratory soil data are summarized in Appendix 3, Tables 1 through 6, and the laboratory data packages have been included in Appendix 7. A total of seventeen (17) surface soil samples were submitted to ALNC for multi-increment subsample processing and analyses of TPH-D, TPH-O MBTEX, PAHs, RCRA8 metals, and organochlorine pesticides. The two replicate multi-incremental surface soil samples were submitted to AAL and analyzed for TPH-D, TPH-O, PAHs, RCRA 8 Metals, and PCBs.

Analytical results indicated that TPH-G, MBTEX, and organochlorine pesticides were either not detected above method detection limits or below applicable EALs. TPH-O, and TPH-D were detected in the surface soils at concentrations exceeding their corresponding EALs throughout Property. In addition, TPH-D and TPH-O concentrations also exceeded the default (lowest) EALs pertaining to commercial/industrial land use.

Cadmium was detected at 18.8 mg/kg in DU1 (2003.SS1) exceeding the default (lowest) EAL of 14 mg/kg pertaining to unrestricted land use. Arsenic was detected at 52.6 mg/kg (DU11) and 24.7 mg/kg (DU12), exceeding the corresponding default EAL of 24 mg/kg pertaining to unrestricted land use. Although bioaccessible arsenic was not analyzed, applying a conservative estimate of 25% bioaccessibility would result in an estimated bioaccessible arsenic concentration of 13.2 mg/kg. As such, in accordance with the DOH TGM, the arsenic concentrations on the site would be classified as Category B soils, which are considered to be minimally impacted and do not pose unacceptable health risks for long-term exposure for unrestricted land use.

Lead was detected at 200 mg/kg (DU12) and 1,400 mg/kg (DU11), exceeding the corresponding default EAL of 200 mg/kg pertaining to unrestricted land use. Note that the reported lead concentration in DU11 of 1,400 mg/kg also exceeds the default EAL pertaining to commercial/industrial land use of 800 mg/kg. Note that the source of lead impacts in DU11 are likely from the lead-based painted surfaces of the former molasses and fuel oil AST located within DU11.

In accordance with EKNA's *Site Work Plan*, provided by the DOT, field replicates were not initially collected; however, based on correspondence with the DOH HEER Office, additional supplemental sampling activities were conducted. Specifically, two field replicate samples were collected for the quality control purposes from DU12. According to A&B, following the initial results in 2014, KT&S was advised of the initial elevated TPH results. KT&S subsequently excavated stained surface soils from DU12. The excavated soils from DU12 were consolidated with soils that had previously been excavated from other areas of the Property. The corresponding consolidated stockpile was subsequently profiled and disposed at the Maalaea Demolition and Construction Landfill. As a result, the field replicates collected from DU12 were not suitable for calculation of relative standard deviations (RSDs). Based on telephone correspondence with Mr. John Peard of the DOH HEER Office, relative percent differences (RPDs) were calculated and used to evaluate data precision for the project. The RPDs ranged from 0% to 57%, which generally indicates moderate precision. As such, no additional adjustment to the soil data was required. Furthermore, the replicate data acquired from DU12 also confirms that the previously detected contaminants (i.e. TPH-D, TPH-O, arsenic, and lead) were sufficiently removed. Disposal documentation for the soil excavated from DU12 is provided in Appendix 8.

## 6.5 Analytical Data – Subsurface Soil

Underground utilities and drilling refusal (i.e. concrete, etc.) was encountered during boring advancement and field activities for B27, B32, and B33; therefore, samples were not collected from these locations. A total of thirty-three (33) discrete subsurface soil samples were submitted to ALNC for analysis of TPH-G, TPH-D, TPH-O, MBTEX, PAHs, RCRA8 metals, and organochlorine pesticides. Note that dilutions were required for several samples. Dilutions are typically required to achieve QA/QC and were likely due to the elevated concentrations of the TPH in samples collected from B5 and B24. As a result, the detection limit for several PAHs and pesticides exceeded their respective DOH EAL.

Analytical results indicated that TPH-D and/or TPH-O were detected above the default unrestricted EALs and the commercial/industrial EALs in B5, B12, B16, B20, and B24. In addition, benzo(a)pyrene was detected in B7 at a concentration of 3.47 mg/kg, which exceeds both the default unrestricted EAL of 1.6 mg/kg and the default commercial/industrial EAL of 2.9 mg/kg. Note that although field observations indicate visual and olfactory signs of petroleum contamination, PID readings were relatively low. PIDs typically detect volatile contaminants such as gasoline related constituents, therefore, the lack of elevated PID readings is considered consistent with the heavier petroleum contaminants detected (i.e. TPH-O and TPH-D) at the site.

## 6.6 Analytical Data – Groundwater

Laboratory groundwater data are summarized in Appendix 3, Tables 5 and 6, and the laboratory data packages have been included in Appendix 7. Groundwater samples were collected from the seven (7) of the eight (8) newly installed monitoring wells (B2 (MW1), B9 (MW2), B19 (MW3), B23 (MW4), B30 (MW5), MW6, MW8). The groundwater samples collected from MW1, MW2, MW3, MW4, and MW5 were analyzed for TPH-G, TPH-D, TPH-O, MBTEX, PAHs, RCRA 8 Metals, and organochlorine pesticides on a 10-15 day turnaround time. The groundwater samples collected from MW6 and MW8 were analyzed for TPH-G, TPH-D, TPH-O, VOCs (which include MBTEX), PAHs, and RCRA 8 Metals on a 5-7 day turnaround time. VOCs were included based on discussions with Mr. John Peard of the DOH HEER Office regarding chlorinated solvents being potential COPC not initially addressed. As such, the full VOC list was analyzed. No VOCs were detected above laboratory reporting limits indicating that chlorinated solvents are not a significant concern for the project site.

Analytical results indicated that with the exception of the TPH-D, arsenic and silver, all COPCs were either not detected above method detection limits or were below all applicable EALs. TPH-D was detected in B19 at 0.828 mg/L, which exceeds the default EAL of 0.640 mg/L. Arsenic was detected in B2 and B9 at 0.0766 mg/L and 0.0363 mg/L; which exceeds the default EAL of 0.036 mg/L. Silver was detected in B9 and B23 at concentrations exceeding the default EAL of 0.00010 mg/L. Note that the contaminant source for the metal impacts in the groundwater are unknown, however, the site has historically been used for commercial / industrial purposes. Therefore, the metal contaminants may be due to the historic usage of the site. Other potential contaminant sources include injection wells at the Kahului WWTP (located approximately 0.25-miles east of the Property) and high turbidity levels during groundwater sampling activities.



## **6.7 Summary of Findings**

The Property is currently developed and used for commercial/industrial purposes and there are no plans for residential development or development for use by sensitive receptors (i.e. daycare center, school for children, hospital, etc.). Current plans are to continue use of the Property for commercial/industrial purposes indefinitely in accordance with the current zoning designation. Based on analytical results, contaminants on the Property exceeding commercial/industrial EALs appeared to be primarily TPH-O and TPH-D in the surface and subsurface soils, though other contaminants were found at elevated levels in limited areas. Based on the analytical results coupled with the current and planned future usage of the Property, ETC recommends that an environmental hazard evaluation and/or environmental hazard management plan conducted and implemented on the Property. While not specifically addressed or targeted as part of this investigation, ETC understands that potential impacts associated with the lead/asbestos-containing coatings on the former fuel oil/molasses tank (within DU11) and two Maui Agricultural Company molasses tanks (within DU14 and DU15) will be investigated and/or addressed in conjunction with future demolition activities.

## 7.0 REFERENCES

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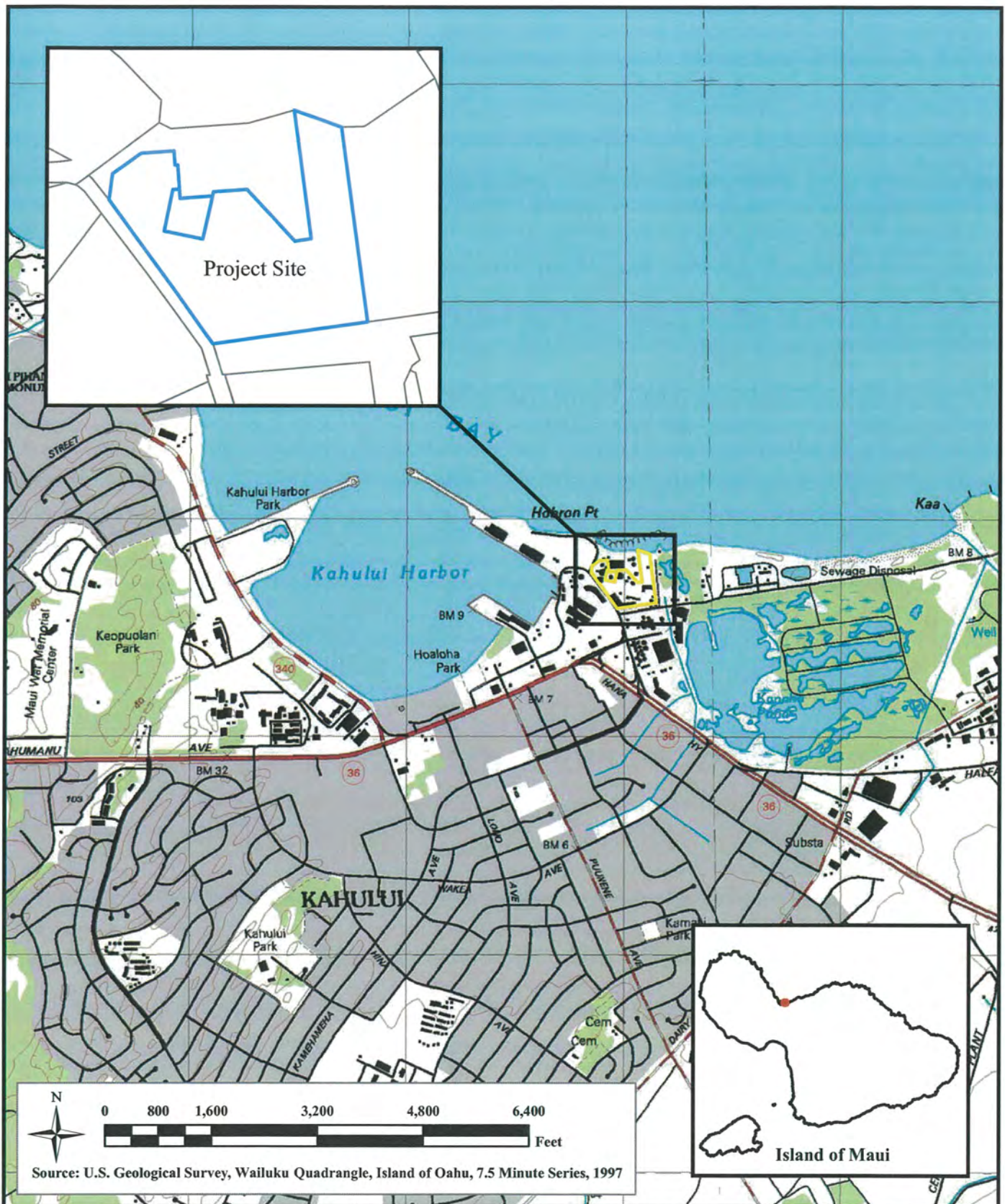
**APPENDIX 1**  
**SITE PLAN SURVEY**



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**APPENDIX 2**  
**FIGURES**



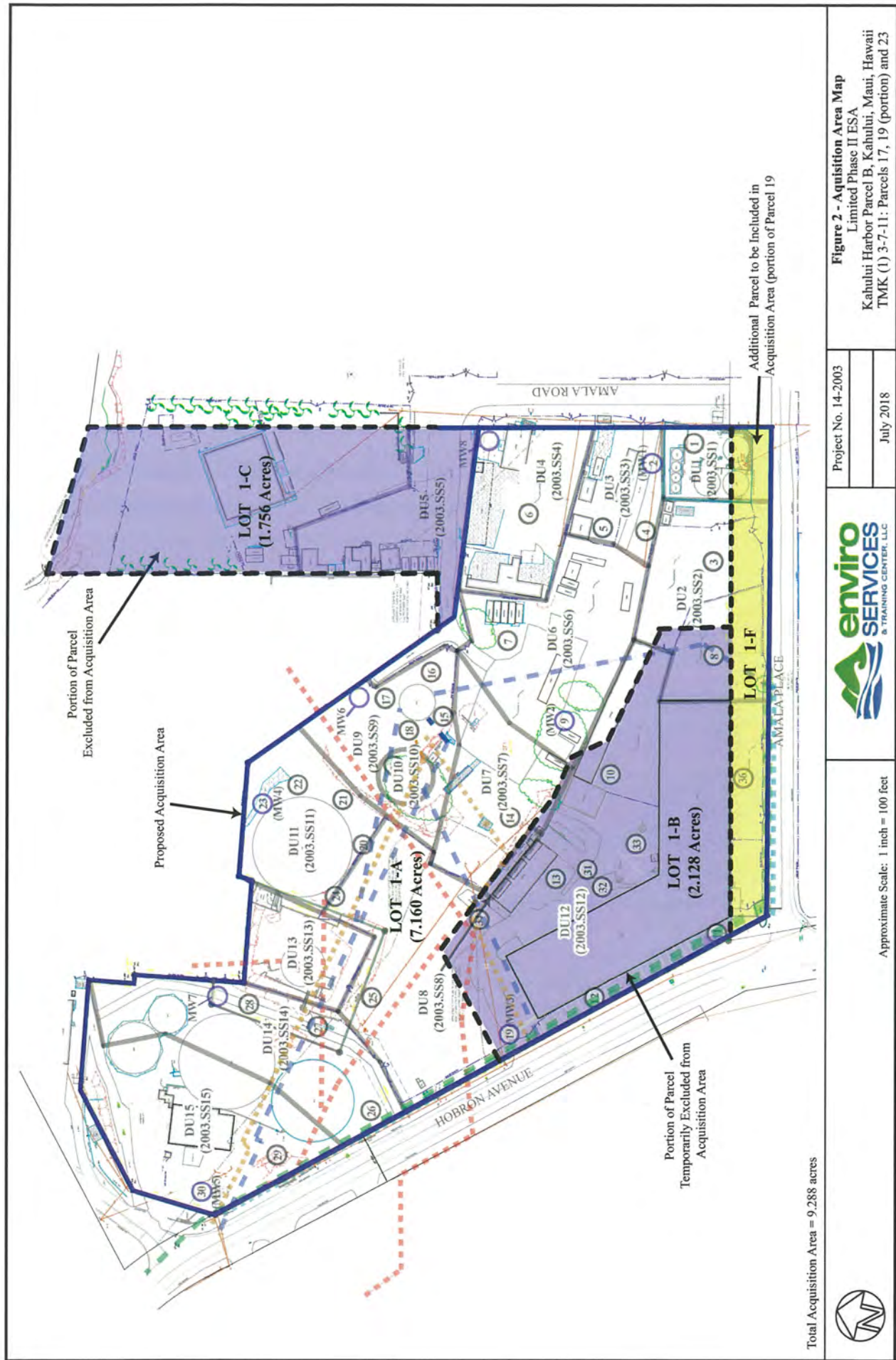


Project No. 14-2003

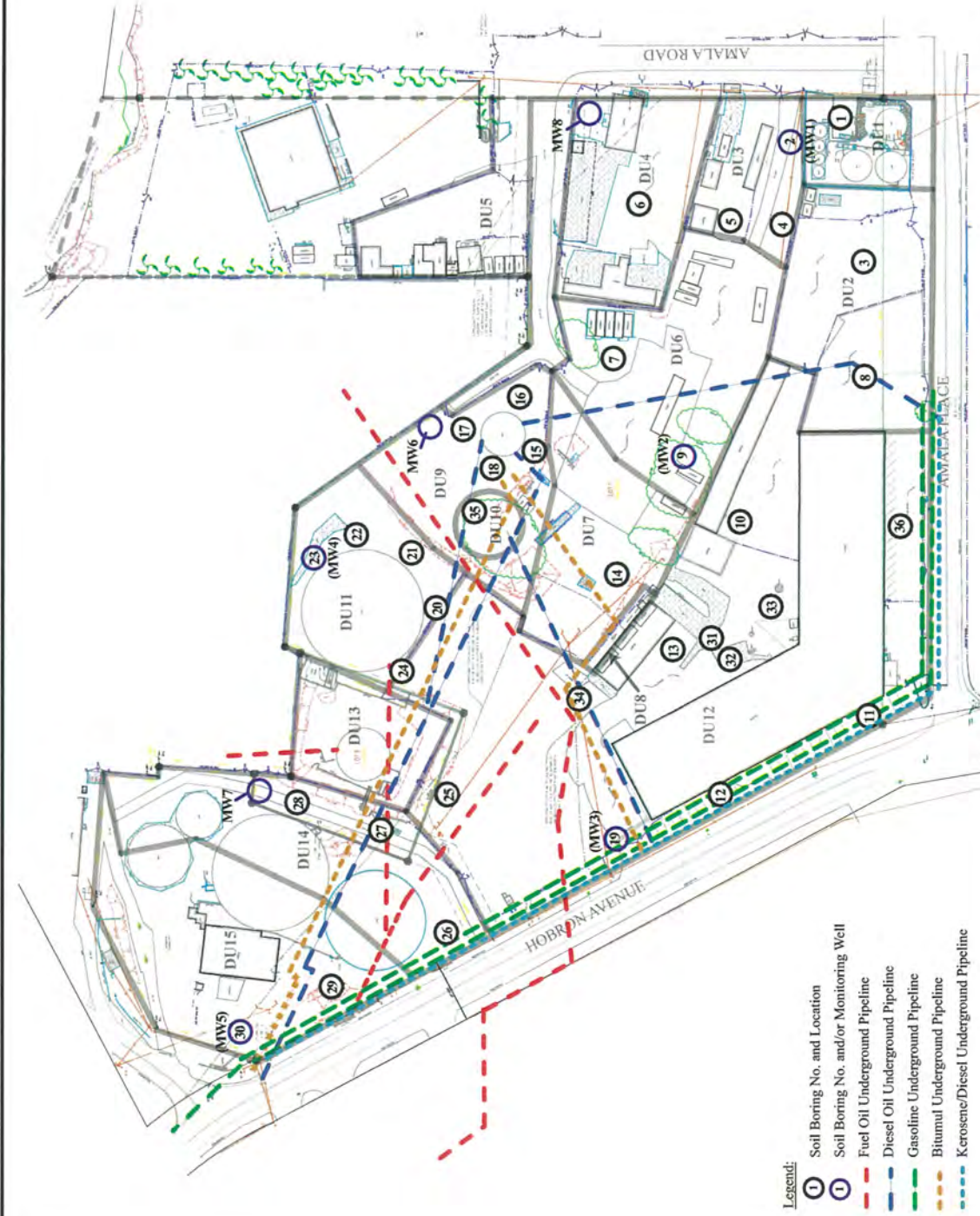
July 2018

**Figure 1 - Site Location Map**  
 Limited Phase II ESA  
 Kahului Harbor Parcel B, Kahului, Maui, Hawaii  
 TMK (1) 3-7-11: Parcels 17, 19 (portion) and 23







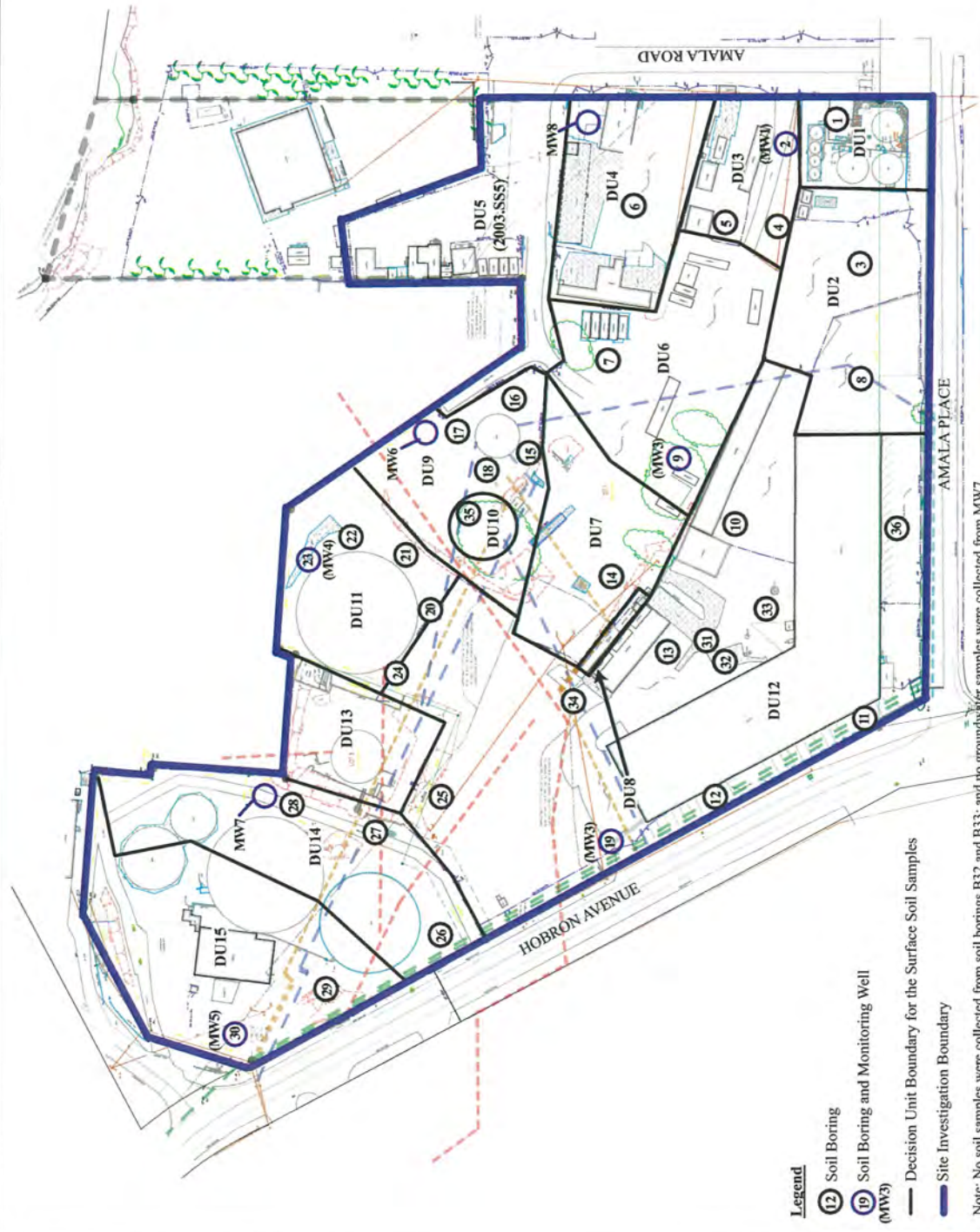


Approximate Scale: 1 inch = 100 feet  
Source: BV Historical Research Report (2014)



Project No. 14-2003  
July 2018

**Figure 3 - Historical Pipelines Map**  
Limited Phase II ESA  
Kahului Harbor Parcel B, Kahului, Maui, Hawaii  
TMK (1) 3-7-11: Parcels 17, 19 (portion) and 23



**Legend**  
 (12) Soil Boring  
 (19) Soil Boring and Monitoring Well (MW3)  
 — Decision Unit Boundary for the Surface Soil Samples  
 — Site Investigation Boundary

Note: No soil samples were collected from soil borings B32 and B33; and no groundwater samples were collected from MW7.



Approximate Scale: 1 inch = 100 feet



Project No. 14-2003

July 2018

**Figure 4 - Sampling Plan**  
 Limited Phase II ESA  
 Kahului Harbor Parcel B, Kahului, Maui, Hawaii  
 TMK (1) 3-7-11: Parcels 17, 19 (portion) and 23







Approximate Scale: 1 inch = 100 feet

Project No. 14-2003

July 2018

**Figure 5 - Physical Features**  
 Limited Phase II ESA  
 Kahului Harbor Parcel B, Kahului, Maui, Hawaii  
 TMK (1) 3-7-11: Parcels 17, 19 (portion) and 23

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**APPENDIX 3**  
**DATA TABLES**

**Table 1: MI Soil Samples – Total Petroleum Hydrocarbons (TPH), PCBs, and RCRA 8 Metals**

EPA Method 8015B Modified / 6010B / 7471A / 8082

All results in milligrams per kilogram (mg/kg)

| SAMPLE ID                       | Decision Unit | TPH as Diesel (D) and Oil (O) |       | RCRA 8 Metals |        |         |          |      |         |          |        | PCBs |      |
|---------------------------------|---------------|-------------------------------|-------|---------------|--------|---------|----------|------|---------|----------|--------|------|------|
|                                 |               | TPH-D                         | TPH-O | Arsenic       | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |      |      |
| 2003.SS1                        | DU 1          | 50.8                          | 273   | 7.4           | 90.5   | 18.8    | 126      | 35.6 | 0.08    | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS2                        | DU 2          | 184                           | 1550  | 11.1          | 61.4   | 1.7     | 26.5     | 94.6 | < 0.040 | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS3                        | DU 3          | 795                           | 3890  | 8.4           | 107    | 2.6     | 31       | 116  | 0.058   | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS4                        | DU 4          | 115                           | 471   | 14.3          | 65.4   | 1.0     | 40.1     | 64.9 | < 0.040 | < 2.0    | 1.6    | NA   | NA   |
| 2003.SS5                        | DU 5          | 519                           | 845   | 8.0           | 68.2   | 1.1     | 27.9     | 76.7 | < 0.037 | < 2.0    | < 0.99 | NA   | NA   |
| 2003.SS6                        | DU 6          | 975                           | 5010  | 18.8          | 64.8   | 2.0     | 50.6     | 76.5 | < 0.037 | < 2.0    | 1.0    | NA   | NA   |
| 2003.SS7                        | DU 7          | 332                           | 986   | 13.3          | 66.2   | 1.5     | 35.2     | 73.9 | < 0.038 | < 2.0    | < 0.99 | NA   | NA   |
| 2003.SS8                        | DU 8          | 687                           | 1090  | 10            | 55.6   | 2.5     | 34.0     | 80.5 | 0.068   | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS9                        | DU 9          | 266 J                         | 1940  | 12.5          | 93.2   | 1.7     | 45.3     | 113  | 0.15    | < 2.0    | < 0.99 | NA   | NA   |
| 2003.SS10                       | DU 10         | 139                           | 861   | 10.5          | 78.8   | 1.8     | 59.5     | 102  | 0.15    | < 2.0    | 1.4    | NA   | NA   |
| 2003.SS11                       | DU 11         | 317                           | 1730  | 52.6          | 134    | 4.6     | 55.6     | 1400 | 0.047   | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS12                       | DU 12         | 3660                          | 8470  | 24.7          | 134    | 3.2     | 50.2     | 200  | 0.077   | < 2.0    | 2.3    | NA   | NA   |
| 2003.SS13                       | DU 13         | 246                           | 903   | 11.9          | 118    | 1.3     | 36.0     | 121  | 0.16    | < 2.0    | 1.5    | NA   | NA   |
| 2003.SS14                       | DU 14         | 77.8                          | 642   | 17.7          | 107    | 1.4     | 47.4     | 164  | 0.085   | < 2.0    | < 1.0  | NA   | NA   |
| 2003.SS15                       | DU 15         | 127                           | 744   | 19.6          | 254    | 1.6     | 54.6     | 197  | 0.19    | < 2.0    | 1.2    | NA   | NA   |
| 2003.SS16*                      | DU 12         | <50                           | 230   | 13            | 76     | 1.1     | 37       | 95   | <0.20   | <1.0     | <1.0   | <0.1 | <0.1 |
| 2003.SS17*                      | DU 12         | <50                           | 350   | 15            | 75     | 1.2     | 36       | 95   | <0.20   | <1.0     | <1.0   | <0.1 | <0.1 |
| RPD                             |               | 0%                            | 41%   | 14%           | 1.3%   | 8.7%    | 2.7%     | 0%   | 0%      | 0%       | 0%     | 0%   | 0%   |
| DOH EAL (Unrestricted)          |               | 220                           | 500   | 24            | 1000   | 14      | 1100     | 200  | 4.7     | 78       | 78     | 1000 | 1.2  |
| DOH EAL (Commercial/Industrial) |               | 680                           | 1500  | 95            | 2500   | 72      | 1100     | 800  | 61      | 1000     | 1000   | 1000 | 8.6  |

DOH EAL = Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located

*Italicized values = Not detected at the method detection limit (MDL) or laboratory reporting limit (RL), MDL or RL value listed*

J = Analyte detected above method detection limit but below quantitation limits, estimated value listed.

**Boldfaced, shaded values = value exceeds default DOH EAL**

Shaded values = RSD adjusted value exceeds default DOH EAL

\* = Samples 2003.SS16 and 2003.SS17 are field replicates of 2003.SS12. Field replicates were collected on 6/4/2018.

NA = Not Analyzed



**Table 2: MI Soil Samples - Polynuclear Aromatic Hydrocarbons (PAHs)**

EPA Method 8270C SIM

All results in milligrams per kilogram (mg/kg)

| SAMPLE ID                       | Decision Unit | Acenaphthene | Acenaphthylene | Anthracene | Benzo (a) anthracene | Benzo (a) pyrene | Benzo (b) fluoranthene | Benzo (g,h,i) perylene | Benzo (k) fluoranthene | Chrysene | Dibenzo (a,h) anthracene | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene | Naphthalene | Phenanthrene | Pyrene  |
|---------------------------------|---------------|--------------|----------------|------------|----------------------|------------------|------------------------|------------------------|------------------------|----------|--------------------------|--------------|----------|--------------------------|----------------------|----------------------|-------------|--------------|---------|
| 2003.SS1                        | DU 1          | <0.025       | <0.025         | <0.025     | 0.0697               | 0.0983           | 0.189                  | 0.090                  | 0.101                  | 0.157    | 0.0179 J                 | 0.284        | <0.025   | 0.0928                   | <0.050               | <0.050               | <0.050      | 0.0847 J     | 0.218 J |
| 2003.SS2                        | DU 2          | <0.660       | <0.660         | <0.660     | 0.330                | 0.230            | 0.298 J                | 0.325 J                | <0.310                 | 0.277 J  | <0.370                   | <0.660       | <0.660   | <0.330                   | <0.300               | <0.300               | <0.300      | <0.660       | <0.660  |
| 2003.SS3                        | DU 3          | <0.050       | <0.050         | <0.050     | 0.0895 J             | 0.117            | 0.176                  | 0.132                  | 0.109                  | 0.157    | <0.028                   | 0.250        | <0.050   | 0.0981                   | <0.100               | <0.100               | <0.100      | 0.0859 J     | 0.237 J |
| 2003.SS4                        | DU 4          | <0.0099      | <0.0099        | <0.0099    | 0.0377               | 0.0708           | 0.115                  | 0.0762                 | 0.0813                 | 0.108    | 0.0086 J                 | 0.195        | <0.0099  | 0.0696                   | <0.020               | <0.020               | <0.020      | 0.0779       | 0.160   |
| 2003.SS5                        | DU 5          | <0.025       | <0.025         | <0.025     | 0.0639               | 0.100            | 0.167                  | 0.110                  | 0.0952                 | 0.143    | 0.0165 J                 | 0.256        | <0.025   | 0.108                    | <0.050               | <0.050               | <0.050      | 0.100 J      | 0.214 J |
| 2003.SS6                        | DU 6          | <0.083       | <0.083         | <0.083     | 0.125 J              | 0.111 J          | 0.292                  | 0.119 J                | 0.122 J                | 0.304    | <0.047                   | 0.495 J      | <0.083   | 0.112 J                  | <0.170               | <0.170               | <0.170      | 0.134 J      | 0.417 J |
| 2003.SS7                        | DU 7          | <0.050       | <0.050         | <0.050     | 0.133                | 0.192            | 0.273                  | 0.199                  | 0.229                  | 0.260    | 0.0391 J                 | 0.407 J      | <0.050   | 0.189                    | <0.099               | <0.099               | <0.099      | 0.165 J      | 0.361 J |
| 2003.SS8                        | DU 8          | <0.025       | <0.025         | <0.025     | 0.0853               | 0.135            | 0.177                  | 0.143                  | 0.168                  | 0.215    | 0.0177 J                 | 0.309        | <0.025   | 0.134                    | <0.050               | <0.050               | <0.050      | 0.222 J      | 0.328   |
| 2003.SS9                        | DU 9          | 0.0277 J     | 0.0311 J       | 0.0261 J   | 0.457                | 0.680            | 1.150                  | 0.601                  | 0.694                  | 1.040    | 0.0929                   | 2.000        | <0.025   | 0.624                    | 0.0673 J             | <0.050               | <0.050      | 1.420        | 1.640   |
| 2003.SS10                       | DU 10         | <0.083       | <0.083         | <0.083     | 0.333                | 0.495            | 0.640                  | 0.447                  | 0.613                  | 0.645    | 0.0647 J                 | 1.330        | <0.083   | 0.407                    | <0.170               | <0.170               | <0.170      | 0.748        | 1.080   |
| 2003.SS11                       | DU 11         | <0.170       | <0.170         | <0.170     | 0.624                | 0.893            | 1.590                  | 0.749                  | 0.759                  | 1.290    | 0.133 J                  | 2.570        | <0.170   | 0.604                    | <0.330               | <0.330               | <0.330      | 1.420        | 2.150   |
| 2003.SS12                       | DU 12         | <0.170       | <0.170         | <0.170     | 0.247 J              | 0.311 J          | 0.486                  | 0.391                  | 0.322 J                | 0.433    | <0.093                   | 0.646 J      | <0.170   | 0.294 J                  | <0.330               | <0.330               | <0.330      | 0.372 J      | 0.733 J |
| 2003.SS13                       | DU 13         | <0.050       | <0.050         | <0.050     | 0.440                | 0.660            | 0.849                  | 0.598                  | 0.717                  | 0.836    | 0.133                    | 1.480        | <0.050   | 0.471                    | <0.100               | <0.100               | <0.100      | 0.734        | 1.340   |
| 2003.SS14                       | DU 14         | <0.050       | <0.050         | <0.050     | 0.538                | 0.749            | 1.180                  | 0.547                  | 0.656                  | 0.917    | 0.104                    | 1.680        | <0.050   | 0.583                    | <0.100               | <0.100               | <0.100      | 0.793        | 1.480   |
| 2003.SS15                       | DU 15         | <0.083       | <0.083         | <0.083     | 0.527                | 0.806            | 1.340                  | 0.599                  | 0.661                  | 1.040    | 0.115 J                  | 1.720        | <0.083   | 0.615                    | <0.170               | <0.170               | <0.170      | 0.857        | 1.640   |
| 2003.SS16*                      | DU 12         | <0.05        | <0.05          | <0.05      | 0.16                 | 0.18             | 0.23                   | 0.34                   | 0.27                   | 0.35     | 0.31                     | 0.54         | <0.05    | 0.26                     | <0.05                | <0.05                | <0.05       | 0.23         | 0.48    |
| 2003.SS17*                      | DU 12         | <0.05        | <0.05          | <0.05      | 0.11                 | 0.15             | 0.21                   | 0.32                   | 0.15                   | 0.25     | 0.33                     | 0.40         | <0.05    | 0.29                     | <0.05                | <0.05                | <0.05       | 0.22         | 0.35    |
| RPD                             |               | 0%           | 0%             | 0%         | 37%                  | 18%              | 9%                     | 6%                     | 57%                    | 33%      | 6%                       | 30%          | 0%       | 11%                      | 0%                   | 0%                   | 0%          | 4%           | 31%     |
| DOH EAL (Unrestricted)          | 120           | 5.5          | 4.2            | 4.2        | 10                   | 3.6              | 11                     | 35                     | 39                     | 30       | 1.1                      | 87           | 93       | 11                       | 0.89                 | 1.9                  | 3.1         | 69           | 44      |
| DOH EAL (Commercial/Industrial) | 120           | 5.5          | 4.2            | 4.2        | 10                   | 5.9              | 68                     | 35                     | 39                     | 30       | 1.8                      | 87           | 93       | 31                       | 0.89                 | 1.9                  | 3.1         | 69           | 44      |

DOH EAL = Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water body is located less than 150-meters from the site.

Indicated values = Not detected at the method detection limit (MDL) or laboratory reporting limit (RL), MDL or RL value listed.

J = Analyte detected above method detection limit but below quantitation limits, estimated value listed.

Boldfaced, shaded values = value exceeds default DOH EAL.

Shaded, Indicated values = RSD adjusted value exceeds DOH EAL.

\* = Samples 2003.SS16 and 2003.SS17 are field replicates of 2003.SS12. Field replicates were collected on 6/4/2018.



**Table 3: M1 Soil Samples - Organochlorine Pesticides**

EPA Method 8081A

All results in milligrams per kilogram (mg/kg)

| SAMPLE ID                       | Decision Unit | Aldrin | Lindane | Technical Chlordane | DDD    | DDE    | DDT    | Dieldrin | Endosulfan | Heptachlor | Heptachlor Epoxide | Methoxychlor | Toxaphene |
|---------------------------------|---------------|--------|---------|---------------------|--------|--------|--------|----------|------------|------------|--------------------|--------------|-----------|
| 2003.SS1                        | DU 1          | <0.008 | <0.016  | <0.067              | <0.014 | <0.029 | <0.012 | <0.012   | <0.012     | <0.009     | <0.010             | <0.011       | <0.130    |
| 2003.SS2                        | DU 2          | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS3                        | DU 3          | <0.020 | <0.040  | <0.170              | <0.035 | <0.030 | <0.025 | <0.030   | <0.030     | <0.023     | <0.025             | <0.027       | <0.330    |
| 2003.SS4                        | DU 4          | <0.004 | <0.008  | <0.033              | <0.007 | <0.006 | <0.005 | <0.006   | <0.006     | <0.005     | <0.005             | <0.005       | <0.067    |
| 2003.SS5                        | DU 5          | <0.008 | <0.016  | <0.066              | <0.014 | <0.012 | <0.010 | <0.012   | <0.012     | <0.009     | <0.010             | <0.011       | <0.130    |
| 2003.SS6                        | DU 6          | <0.080 | <0.160  | <0.670              | <0.140 | <0.120 | <0.100 | <0.120   | <0.120     | <0.093     | <0.100             | <0.110       | <1.300    |
| 2003.SS7                        | DU 7          | <0.080 | <0.160  | <0.670              | <0.140 | <0.120 | <0.100 | <0.120   | <0.120     | <0.093     | <0.100             | <0.110       | <1.300    |
| 2003.SS8                        | DU 8          | <0.016 | <0.032  | <0.130              | <0.028 | <0.024 | <0.020 | <0.024   | <0.024     | <0.019     | <0.020             | <0.021       | <0.270    |
| 2003.SS9                        | DU 9          | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS10                       | DU 10         | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS11                       | DU 11         | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS12                       | DU 12         | <0.080 | <0.160  | <0.670              | <0.140 | <0.120 | <0.100 | <0.120   | <0.120     | <0.093     | <0.100             | <0.110       | <1.300    |
| 2003.SS13                       | DU 13         | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS14                       | DU 14         | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS15                       | DU 15         | <0.040 | <0.080  | <0.330              | <0.070 | <0.060 | <0.050 | <0.060   | <0.060     | <0.047     | <0.050             | <0.053       | <0.670    |
| 2003.SS16*                      | NA            | NA     | NA      | NA                  | NA     | NA     | NA     | NA       | NA         | NA         | NA                 | NA           | NA        |
| 2003.SS17*                      | NA            | NA     | NA      | NA                  | NA     | NA     | NA     | NA       | NA         | NA         | NA                 | NA           | NA        |
| DOH EAL (Unrestricted)          |               | 3.9    | 0.029   | 17                  | 2.2    | 1.9    | 1.8    | 2.5      | 13         | 3.8        | 0.2                | 16           | 0.48      |
| DOH EAL (Commercial/Industrial) |               | 8.4    | 0.029   | 23                  | 8.4    | 8.2    | 5.6    | 2.4      | 13         | 5.6        | 2.7                | 16           | 1.8       |

DOH EAL - Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located less than 150-meters from the site.

*Italicized Values = Not detected at the method detection limit (MDL) or laboratory reporting limit (RL), MDL or RL value listed.*

Lindane = Sum of Alpha-BHC, Beta BHC, Gamma-BHC, and Delta-BHC; Endosulfan = Sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate; Endrin = Sum of Endrin, Endrin Aldehyde, and Endrin Ketone

\* = Samples 2003.SS16 and 2003.SS17 are field replicates of 2003.SS12. Field replicates were collected on 6/4/2018.

NA = Not Analyzed

Table 4: Subsurface Soil Samples - Total Petroleum Hydrocarbons (TPH), BTEX, MIBE, and RCRA 8 Metals

EPA Method 801.5B Modified / 8260B / 6010B / 7471A

All results in milligrams per kilogram (mg/kg)

| SAMPLE ID                       | TPH as Gasoline (G), Diesel (D), and Oil (O) |         |        |         | BTEX and Methyl Tertiary Butyl Ether (MIBE) |              |         |         |         |        |         | RCRA 8 Metals |      |         |          |        |  |  |  |
|---------------------------------|----------------------------------------------|---------|--------|---------|---------------------------------------------|--------------|---------|---------|---------|--------|---------|---------------|------|---------|----------|--------|--|--|--|
|                                 | TPH-G                                        | TPH-D   | TPH-O  | Benzene | Toluene                                     | Ethylbenzene | Xylenes | MIBE    | Arsenic | Barium | Cadmium | Chromium      | Lead | Mercury | Selenium | Silver |  |  |  |
| 2003.B1.48-60                   | <0.048                                       | 1.75 J  | 4.19 J | <0.0058 | <0.0058                                     | <0.0058      | <0.0012 | <0.0012 | 10.3    | <40    | <0.50   | 3.5           | <40  | <0.038  | <40      | <2.0   |  |  |  |
| 2003.B2.42-54                   | <0.048                                       | <0.83   | <1.7   | <0.0053 | <0.0053                                     | <0.0053      | <0.0011 | <0.0011 | <40     | <40    | <0.50   | 2.9           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B3.42-54                   | <0.049                                       | <0.83   | 1.86 J | <0.0054 | <0.0054                                     | <0.0054      | <0.0011 | <0.0011 | 6.3     | <40    | <0.50   | 3.6           | <40  | <0.039  | <40      | <2.0   |  |  |  |
| 2003.B4.42-54                   | <0.049                                       | <0.082  | 1.6    | <0.0057 | <0.0057                                     | <0.0057      | <0.0011 | <0.0011 | 21.4    | <40    | <0.50   | 3.0           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B5.48-60                   | <0.049                                       | 1190    | 7170   | <0.029  | <0.029                                      | <0.029       | <0.057  | <0.057  | <40     | <40    | <0.50   | 3.8           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B6.48-60                   | <0.048                                       | <0.82   | <1.6   | <0.0056 | <0.0056                                     | <0.0056      | <0.0011 | <0.0011 | <40     | <40    | <0.50   | 3.2           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B7.48-60                   | <0.048                                       | 239     | 409    | <0.0060 | <0.0060                                     | <0.0060      | <0.0012 | <0.0012 | <40     | <40    | <0.50   | 3.3           | <40  | <0.038  | <40      | <2.0   |  |  |  |
| 2003.B8.48-60                   | <0.050                                       | 10.5    | 51.2   | <0.0055 | <0.0055                                     | <0.0055      | <0.0011 | <0.0011 | 5.5     | <20    | <0.99   | 5.4           | <40  | <0.040  | <20      | <0.99  |  |  |  |
| 2003.B9.48-60                   | <0.048                                       | <0.83   | 1.7    | <0.0062 | <0.0062                                     | <0.0062      | <0.0012 | <0.0012 | 5.1     | <40    | <0.50   | 3.3           | <40  | <0.036  | <40      | <2.0   |  |  |  |
| 2003.B10.48-60                  | <0.050                                       | <0.83   | 1.7 J  | <0.0056 | <0.0056                                     | <0.0056      | <0.0011 | <0.0011 | <20     | <20    | <0.99   | 4.2           | <20  | <0.039  | <20      | <0.99  |  |  |  |
| 2003.B11.48-60                  | <0.050                                       | <0.83   | <1.7   | <0.0052 | <0.0052                                     | <0.0052      | <0.0010 | <0.0010 | <20     | <20    | <1.0    | 4.1           | <20  | <0.037  | <20      | <1.0   |  |  |  |
| 2003.B12.48-60                  | <0.050                                       | 151     | 1340   | <0.0055 | <0.0055                                     | <0.0055      | <0.0011 | <0.0011 | <20     | <20    | <1.0    | 3.8           | <20  | <0.040  | <20      | <1.0   |  |  |  |
| 2003.B13.48-60                  | <0.047                                       | <0.83   | <1.7   | <0.0060 | <0.0060                                     | <0.0060      | <0.0012 | <0.0012 | <20     | <20    | <1.0    | 2.4           | <20  | <0.038  | <20      | <1.0   |  |  |  |
| 2003.B14.48-60                  | <0.049                                       | <0.83   | 2.03 J | <0.0058 | <0.0058                                     | <0.0058      | <0.0012 | <0.0012 | <40     | <40    | <0.99   | 2.5           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B15.48-60                  | <0.049                                       | 20.8    | 33.6   | <0.0061 | <0.0061                                     | <0.0061      | <0.0012 | <0.0012 | <40     | <40    | <0.50   | 3.2           | <40  | <0.042  | <40      | <2.0   |  |  |  |
| 2003.B16.48-60                  | <0.048                                       | 2350    | 3440   | <0.029  | <0.029                                      | <0.029       | <0.057  | <0.057  | <39     | <39    | <0.99   | 2.6           | <39  | <0.036  | <39      | <2.0   |  |  |  |
| 2003.B17.48-60                  | <0.045                                       | <0.83   | 2.67 J | <0.0060 | <0.0060                                     | <0.0060      | <0.0012 | <0.0012 | <40     | <40    | <0.50   | 2.2           | <40  | <0.037  | <40      | <2.0   |  |  |  |
| 2003.B18.48-60                  | <0.048                                       | 53.4    | 231    | <0.0061 | <0.0061                                     | <0.0061      | <0.0011 | <0.0011 | <40     | <40    | <0.50   | 3.2           | <40  | <0.038  | <40      | <0.99  |  |  |  |
| 2003.B19.48-60                  | <0.049                                       | <0.83   | 3.04 J | <0.0057 | <0.0057                                     | <0.0057      | <0.0011 | <0.0011 | <40     | <40    | <0.99   | 2.8           | <40  | <0.036  | <40      | <2.0   |  |  |  |
| 2003.B20.48-60                  | <0.049                                       | 217     | 1400   | <0.0054 | <0.0054                                     | <0.0054      | <0.0011 | <0.0011 | <20     | <20    | <0.98   | 2.7           | <20  | <0.038  | <20      | <0.98  |  |  |  |
| 2003.B21.48-60                  | <0.049                                       | 1.20 J  | 4.31 J | <0.0058 | <0.0058                                     | <0.0058      | <0.0012 | <0.0012 | <20     | <20    | <1.0    | 4.3           | <20  | <0.040  | <20      | <1.0   |  |  |  |
| 2003.B22.48-60                  | <0.050                                       | 1.04 J  | 3.03 J | <0.0060 | <0.0060                                     | <0.0060      | <0.0012 | <0.0012 | <20     | <20    | <1.0    | 3.1           | <20  | <0.036  | <20      | <1.0   |  |  |  |
| 2003.B23.48-60                  | <0.048                                       | <0.83   | 1.7    | <0.0056 | <0.0056                                     | <0.0056      | <0.0011 | <0.0011 | <20     | <20    | <0.99   | 3.6           | <20  | <0.042  | <20      | <0.99  |  |  |  |
| 2003.B24.48-60                  | <0.050                                       | 1790    | 9380   | <0.027  | <0.027                                      | <0.027       | <0.055  | <0.055  | <20     | <20    | <0.99   | 4.1           | <20  | <0.037  | <20      | <0.99  |  |  |  |
| 2003.B25.48-60                  | <0.049                                       | 1.18 J  | 3.61 J | <0.0051 | <0.0051                                     | <0.0051      | <0.0010 | <0.0010 | <20     | <20    | <0.99   | 3.3           | <20  | <0.039  | <20      | <0.99  |  |  |  |
| 2003.B26.48-60                  | <0.047                                       | 0.842 J | 2.30 J | <0.0063 | <0.0063                                     | <0.0063      | <0.0013 | <0.0013 | <20     | <20    | <0.99   | 3.5           | <20  | <0.036  | <20      | <0.99  |  |  |  |
| B27 - No Sample Collected       | NS                                           | NS      | NS     | NS      | NS                                          | NS           | NS      | NS      | NS      | NS     | NS      | NS            | NS   | NS      | NS       | NS     |  |  |  |
| 2003.B28.24-36                  | <0.049                                       | 8.32    | 42.6   | <0.0045 | <0.0045                                     | <0.0045      | <0.0089 | <0.0089 | <20     | 136    | <0.99   | 5.2           | <20  | 0.079   | <20      | <0.99  |  |  |  |
| 2003.B29.48-60                  | <0.048                                       | <0.83   | <1.7   | <0.0061 | <0.0061                                     | <0.0061      | <0.0012 | <0.0012 | <40     | <40    | <0.99   | 3.2           | <40  | <0.039  | <40      | <2.0   |  |  |  |
| 2003.B30.48-60                  | <0.048                                       | <0.83   | <1.7   | <0.0060 | <0.0060                                     | <0.0060      | <0.0012 | <0.0012 | <40     | <40    | <0.50   | 2.8           | <40  | <0.040  | <40      | <2.0   |  |  |  |
| 2003.B31.48-60                  | <0.049                                       | 1.19 J  | 4.79 J | <0.0057 | <0.0057                                     | <0.0057      | <0.0011 | <0.0011 | <20     | <20    | <1.0    | 2.2           | <20  | <0.036  | <20      | <1.0   |  |  |  |
| B32 - No Sample Collected       | NS                                           | NS      | NS     | NS      | NS                                          | NS           | NS      | NS      | NS      | NS     | NS      | NS            | NS   | NS      | NS       | NS     |  |  |  |
| B33 - No Sample Collected       | NS                                           | NS      | NS     | NS      | NS                                          | NS           | NS      | NS      | NS      | NS     | NS      | NS            | NS   | NS      | NS       | NS     |  |  |  |
| 2003.B34.48-60                  | <0.050                                       | 1.04 J  | 2.89 J | <0.0056 | <0.0056                                     | <0.0056      | <0.0011 | <0.0011 | <20     | <20    | <0.99   | 2.9           | <20  | <0.038  | <20      | <0.99  |  |  |  |
| 2003.B35.60-72                  | <0.049                                       | 1.02 J  | 2.40 J | <0.0058 | <0.0058                                     | <0.0058      | <0.0012 | <0.0012 | <20     | <20    | <1.0    | 3.9           | <20  | <0.040  | <20      | <1.0   |  |  |  |
| 2003.B36.48-60                  | <0.048                                       | <0.83   | 2.11 J | <0.0054 | <0.0054                                     | <0.0054      | <0.0011 | <0.0011 | <20     | <20    | <0.99   | 3.2           | <20  | <0.041  | <20      | <0.99  |  |  |  |
| DOH EAL (Unrestricted)          | 100                                          | 220     | 500    | 0.77    | 0.78                                        | 0.90         | 1.4     | 2.3     | 24      | 1000   | 14      | 1100          | 200  | 4.7     | 78       | 78     |  |  |  |
| DOH EAL (Commercial/Industrial) | 500                                          | 680     | 1500   | 4.3     | 0.78                                        | 0.90         | 1.4     | 4.1     | 95      | 2500   | 72      | 1100          | 800  | 61      | 1000     | 1000   |  |  |  |

DOH EAL = Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located less than 150 meters from the site.

Italicized Values = Not Detected at the method detection limit (MDL) or laboratory reporting limit (RL). MDL or RL value listed.

J = Analyte detected above method detection limit but below quantitation limits, estimated value list.

NS = Not Sampled (Note: No samples were collected from B27 and B33, and B32 was combined with B3).

Boldfaced, shaded values = value exceeds default DOH EAL.



Table 5: Subsurface Soil Samples - Polynuclear Aromatic Hydrocarbons (PAHs)

EPA Method 8270C SIM

All results in milligrams per kilogram (mg/kg)

| SAMPLE ID                       | Acenaphthene | Acenaphthylene | Anthracene | Benzo (a) anthracene | Benzo (b) fluoranthene | Benzo (ghi) perylene | Benzo (k) fluoranthene | Chrysene | Dibenz (a,h) anthracene | Fluoranthene | Fluorene | Indeno (1,2,3-cd) pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene | Naphthalene | Phenanthrene | Pyrene |
|---------------------------------|--------------|----------------|------------|----------------------|------------------------|----------------------|------------------------|----------|-------------------------|--------------|----------|--------------------------|----------------------|----------------------|-------------|--------------|--------|
| 2003.B1.48-60                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00073                | 0.00073              | 0.00080                | 0.00073  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B2.42-54                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00066                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B3.42-54                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00066                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B4.42-54                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00066                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B5.48-60                   | 1.700        | 1.700          | 1.700      | 0.830                | 0.570                  | 1.930                | 0.760                  | 0.660    | 0.930                   | 1.700        | 1.700    | 0.830                    | 3.300                | 3.300                | 3.300       | 1.700        | 1.700  |
| 2003.B6.48-60                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00077                | 0.00067  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B7.48-60                   | 0.227        | 0.663          | 0.672      | 3.710                | 3.470                  | 1.660                | 3.030                  | 4.340    | 0.335                   | 9.580        | 0.291    | 2.240                    | 0.182                | 0.107                | 0.101       | 5.680        | 7.670  |
| 2003.B8.48-60                   | 0.017        | 0.017          | 0.017      | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B9.48-60                   | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B10.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B11.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B12.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B13.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B14.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B15.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B16.48-60                  | 0.330        | 0.330          | 0.330      | 0.170                | 0.110                  | 0.241                | 0.150                  | 0.150    | 0.190                   | 0.330        | 0.330    | 0.212                    | 0.660                | 0.660                | 0.660       | 0.330        | 0.330  |
| 2003.B17.48-60                  | 0.0066       | 0.0066         | 0.0066     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B18.48-60                  | 0.050        | 0.050          | 0.050      | 0.215                | 0.295                  | 0.327                | 0.303                  | 0.359    | 0.0919                  | 0.557        | 0.050    | 0.305                    | 0.100                | 0.100                | 0.100       | 0.281        | 0.531  |
| 2003.B19.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00067              | 0.00077                | 0.00067  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B20.48-60                  | 0.170        | 0.170          | 0.170      | 0.083                | 0.056                  | 0.066                | 0.076                  | 0.066    | 0.093                   | 0.170        | 0.170    | 0.083                    | 0.330                | 0.330                | 0.330       | 0.170        | 0.170  |
| 2003.B21.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B22.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B23.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B24.48-60                  | 1.700        | 1.700          | 1.700      | 0.830                | 0.560                  | 0.988                | 0.760                  | 0.660    | 0.930                   | 1.700        | 1.700    | 0.830                    | 3.300                | 3.300                | 3.300       | 1.700        | 1.700  |
| 2003.B25.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B26.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| B27 - No Sample Collected       | NS           | NS             | NS         | NS                   | NS                     | NS                   | NS                     | NS       | NS                      | NS           | NS       | NS                       | NS                   | NS                   | NS          | NS           | NS     |
| 2003.B28.24-36                  | 0.0033       | 0.0038         | 0.0084     | 0.0666               | 0.0859                 | 0.0497               | 0.0758                 | 0.0993   | 0.0125                  | 0.151        | 0.0033   | 0.0516                   | 0.0066               | 0.0066               | 0.0066      | 0.0960       | 0.177  |
| 2003.B29.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B30.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B31.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| B32 - No Sample Collected       | NS           | NS             | NS         | NS                   | NS                     | NS                   | NS                     | NS       | NS                      | NS           | NS       | NS                       | NS                   | NS                   | NS          | NS           | NS     |
| B33 - No Sample Collected       | NS           | NS             | NS         | NS                   | NS                     | NS                   | NS                     | NS       | NS                      | NS           | NS       | NS                       | NS                   | NS                   | NS          | NS           | NS     |
| 2003.B34.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B35.60-72                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00056                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| 2003.B36.48-60                  | 0.0017       | 0.0017         | 0.0017     | 0.00083              | 0.00057                | 0.00073              | 0.00076                | 0.00066  | 0.00093                 | 0.0017       | 0.0017   | 0.00083                  | 0.00033              | 0.00033              | 0.00033     | 0.0017       | 0.0017 |
| DOH EAL (Unrestricted)          | 120          | 5.5            | 4.2        | 10                   | 3.6                    | 11                   | 39                     | 30       | 1.1                     | 87           | 93       | 11                       | 0.89                 | 1.9                  | 3.1         | 69           | 44     |
| DOH EAL (Commercial/Industrial) | 120          | 5.5            | 4.2        | 10                   | 5.9                    | 35                   | 39                     | 30       | 1.8                     | 87           | 93       | 31                       | 0.89                 | 1.9                  | 3.1         | 69           | 44     |

DOH EAL = Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located less than 150-meters from the site. *Italicized, shaded values = Not detected at the MDL or RL value listed.*

NS = Not Sampled (Note: No samples were collected from B27 and B33, and B32 was combined with B31).

Shaded, italicized values = MDL or RL value listed exceeds DOH EAL.

*Italicized, shaded values = Not detected at the MDL or RL value listed.*

Red shaded values = value exceeds DOH EAL, given a 30% deviation percentage from the reported concentration (4+).





**Table 7: Groundwater Samples - Total Petroleum Hydrocarbons (TPH), BTEX, MIBE, and RCRA 8 Metals**

All results in milligrams per liter (mg/L)

| ANALYTE                                                                                                            | MW1<br>(2003.B2.GW) | MW2<br>(2003.B9.GW) | MW3<br>(2003.B19.GW) | MW4<br>(2003.B23.GW) | MW5<br>(2003.B30.GW) | MW6<br>(2003.MW6.GW) | MW7<br>(2003.MW7.GW) | MW8<br>(2003.MW8.GW) | DOH EAL  |
|--------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------|
| <b>TPH as Gasoline (G), Diesel (D), and Oil (O) (EPA Method 8015B)</b>                                             |                     |                     |                      |                      |                      |                      |                      |                      |          |
| TPH-G                                                                                                              | <0.020              | <0.020              | <0.020               | <0.020               | <0.020               | <0.1                 | NS                   | <0.1                 | 0.500    |
| TPH-D                                                                                                              | 0.0462 J            | 0.0542 J            | 0.828                | 0.0816 J             | 0.0937 J             | <0.05                | NS                   | <0.05                | 0.640    |
| TPH-O                                                                                                              | 0.0559 J            | 0.0784 J            | 0.201                | 0.0748 J             | 0.0937 J             | <0.1                 | NS                   | <0.1                 | 0.640    |
| <b>Benzene / Toluene / Ethylbenzene / Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE) (EPA Method 8260B)</b> |                     |                     |                      |                      |                      |                      |                      |                      |          |
| Benzene                                                                                                            | <0.00020            | <0.00020            | 0.0027               | <0.00020             | <0.00020             | <0.0005              | NS                   | <0.0005              | 0.071    |
| Toluene                                                                                                            | <0.00020            | <0.00020            | <0.00020             | <0.00020             | <0.00020             | <0.0005              | NS                   | <0.0005              | 0.0098   |
| Ethylbenzene                                                                                                       | <0.00020            | <0.00020            | <0.00020             | <0.00020             | <0.00020             | <0.0005              | NS                   | <0.0005              | 0.0073   |
| Xylenes                                                                                                            | <0.00046            | <0.00046            | <0.00046             | <0.00046             | <0.00046             | <0.0005              | NS                   | <0.0005              | 0.013    |
| MTBE                                                                                                               | <0.00020            | <0.00020            | 0.00064 J            | <0.00020             | <0.00020             | <0.0005              | NS                   | <0.0005              | 0.730    |
| <b>RCRA 8 Metals (EPA Method 6010B / 7470A)</b>                                                                    |                     |                     |                      |                      |                      |                      |                      |                      |          |
| Arsenic                                                                                                            | 0.0766              | 0.0363              | <0.010               | 0.0176               | <0.010               | 0.0051               | NS                   | 0.0056               | 0.036    |
| Barium                                                                                                             | <0.200              | <0.200              | <0.200               | <0.200               | <0.200               | 0.013                | NS                   | 0.014                | 0.220    |
| Cadmium                                                                                                            | <0.0020             | <0.0020             | 0.0040               | <0.0020              | <0.0020              | <0.001               | NS                   | 0.001                | 0.0030   |
| Chromium                                                                                                           | <0.010              | <0.010              | <0.010               | <0.010               | <0.010               | 0.0032               | NS                   | 0.0035               | 0.011    |
| Lead                                                                                                               | <0.010              | <0.010              | <0.010               | <0.010               | <0.010               | <0.001               | NS                   | <0.001               | 0.0056   |
| Mercury                                                                                                            | <0.00020            | 0.00020             | 0.00020              | 0.00020              | 0.00020              | 0.0002               | NS                   | 0.0002               | 0.000025 |
| Selenium                                                                                                           | 0.010               | <0.010              | <0.010               | <0.010               | <0.010               | 0.0036               | NS                   | 0.0079               | 0.0050   |
| Silver                                                                                                             | <0.0050             | 0.0052              | <0.0050              | 0.0067               | <0.0050              | <0.001               | NS                   | 0.001                | 0.00010  |

DOH EAL = Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located less than 150-meters from the site.

*Indicated Values* - Not detected at the method detection limit (MDL) or laboratory reporting limit (RL), MDL or RL value listed.

J = Analyte detected above method detection limit but below quantitation limits, estimated value listed.

**Boldfaced, shaded values = value exceeds default DOH EAL.**

*Shaded, italicized values* - MDL or RL value listed exceeds DOH EAL.

*Indicated, shaded values* - Not detected at the MDL or RL, MDL or RL exceeds DOH EAL.

NS = Not Sampled



**Table 8: Groundwater Samples - Polynuclear Aromatic Hydrocarbons (PAHs)**

EPA Method 8270C SIM

All results in milligrams per liter (mg/L)

| SAMPLE ID              | MW1<br>(2003.B2.GW) | MW2<br>(2003.B9.GW) | MW3<br>(2003.B19.GW) | MW4<br>(2003.B23.GW) | MW5<br>(2003.B30.GW) | MW6<br>(2003.MW6.GW) | MW7<br>(2003.MW7.GW) | MW8<br>(2003.MW8.GW) | DOH EAL  |
|------------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------|
| Acenaphthene           | <0.000048           | <0.000048           | <0.000048            | <0.000048            | <0.000049            | <0.0001              | NS                   | <0.0001              | 0.015    |
| Acenaphthylene         | <0.000048           | <0.000048           | <0.000048            | <0.000048            | <0.000049            | <0.00005             | NS                   | <0.00005             | 0.013    |
| Anthracene             | 0.000048            | 0.000048            | 0.000048             | 0.000048             | 0.000049             | 0.00005              | NS                   | 0.00005              | 0.00002  |
| Benzo(a)anthracene     | 0.000051            | 0.000051            | 0.000051             | 0.000050             | 0.000052             | <0.000025            | NS                   | 0.000025             | 0.000027 |
| Benzo(a)pyrene         | <0.000039           | <0.000039           | <0.000039            | <0.000039            | <0.000040            | <0.000025            | NS                   | <0.000025            | 0.00006  |
| Benzo(b)fluoranthene   | 0.000034            | 0.000034            | 0.000034             | 0.000033             | 0.000034             | <0.0001              | NS                   | 0.0001               | 0.00068  |
| Benzo(g,h,i)perylene   | <0.000035           | 0.000035            | 0.000035             | 0.000034             | 0.000035             | 0.0001               | NS                   | 0.0001               | 0.00013  |
| Benzo(k)fluoranthene   | <0.000037           | 0.000037            | 0.000037             | 0.000037             | 0.000038             | 0.0001               | NS                   | 0.0001               | 0.00040  |
| Chrysene               | 0.000043            | 0.000043            | 0.000043             | 0.000043             | 0.000044             | 0.0001               | NS                   | 0.0001               | 0.001    |
| Dibenzo(a,h)anthracene | 0.000034            | 0.000034            | 0.000034             | 0.000033             | 0.000034             | 0.0001               | NS                   | 0.0001               | 0.0008   |
| Fluoranthene           | 0.000048            | 0.000048            | 0.000043             | 0.000048             | 0.000049             | 0.00005              | NS                   | 0.00005              | 0.0008   |
| Fluorene               | 0.000048            | 0.000048            | 0.000048             | 0.000048             | 0.000049             | 0.00005              | NS                   | 0.00005              | 0.0039   |
| Indeno(1,2,3-cd)pyrene | 0.000034            | 0.000034            | 0.000034             | 0.000033             | 0.000034             | <0.000095            | NS                   | <0.000095            | 0.000095 |
| 1-Methylnaphthalene    | 0.000096            | 0.000096            | 0.000096             | 0.000095             | 0.000098             | 0.0002               | NS                   | 0.0002               | 0.0021   |
| 2-Methylnaphthalene    | 0.000096            | 0.000096            | 0.000096             | 0.000095             | 0.000098             | 0.0002               | NS                   | 0.0002               | 0.0047   |
| Naphthalene            | 0.000096            | 0.000096            | 0.000028             | 0.000095             | 0.000098             | 0.0002               | NS                   | 0.0002               | 0.012    |
| Phenanthrene           | 0.000048            | 0.000048            | 0.000048             | 0.000048             | 0.000049             | <0.00005             | NS                   | <0.00005             | 0.0023   |
| Pyrene                 | 0.000048            | 0.000048            | 0.000048             | 0.000048             | 0.000049             | 0.00005              | NS                   | 0.00005              | 0.0046   |

DOH EAL - Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where drinking water source is not threatened and where the nearest surface water body is located less than 150-meters from the site

*Italicized values* = Not detected at the method detection limit (MDL) or laboratory reporting limit (RL), MDL or RL value listed.

*Shaded, italicized values* = MDL or RL value listed exceeds DOH EAL.

*Italicized, shaded values* = Not detected at the MDL or RL, MDL or RL exceeds DOH EAL.

NS = Not Sampled

**Table 9: Groundwater Samples - Organochlorine Pesticides**

EPA Method 8081A

All results in milligrams per liter (ug/L)

| SAMPLE ID                  | MW1<br>(2003.B2.GW) | MW2<br>(2003.B9.GW) | MW3<br>(2003.B19.GW) | MW4<br>(2003.B23.GW) | MW5<br>(2003.B30.GW) | MW6<br>(2003.MW6.GW) | MW7<br>(2003.MW7.GW) | MW8<br>(2003.MW8.GW) | DOH EAL |
|----------------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------|
| <b>Aldrin</b>              | <0.0020             | <0.0019             | <0.0019              | 0.0019               | <0.0020              | NA                   | NS                   | NA                   | 0.00014 |
| <b>Lindane</b>             | <0.0044             | <0.0043             | <0.0043              | <0.0043              | <0.0045              | NA                   | NS                   | NA                   | 0.063   |
| <b>Technical Chlordane</b> | <0.0098             | <0.0096             | <0.0096              | 0.0095               | 0.010                | NA                   | NS                   | NA                   | 0.0040  |
| <b>DDD</b>                 | <0.0023             | <0.0022             | <0.0022              | <0.0022              | <0.0023              | NA                   | NS                   | NA                   | 0.011   |
| <b>DDE</b>                 | <0.0029             | <0.0029             | <0.0029              | <0.0029              | <0.0030              | NA                   | NS                   | NA                   | 0.41    |
| <b>DDT</b>                 | <0.0024             | 0.0023              | 0.0023               | 0.0023               | <0.0024              | NA                   | NS                   | NA                   | 0.001   |
| <b>Dieldrin</b>            | <0.0021             | <0.0020             | <0.0020              | <0.0020              | <0.0021              | NA                   | NS                   | NA                   | 0.0019  |
| <b>Endosulfan</b>          | <0.0025             | <0.0024             | <0.0024              | <0.0024              | <0.0025              | NA                   | NS                   | NA                   | 0.0087  |
| <b>Endrin</b>              | <0.0041             | <0.0040             | 0.0040               | <0.0040              | <0.0042              | NA                   | NS                   | NA                   | 0.0023  |
| <b>Heptachlor</b>          | <0.0027             | <0.0027             | <0.0027              | <0.0027              | <0.0028              | NA                   | NS                   | NA                   | 0.0036  |
| <b>Heptachlor Epoxide</b>  | <0.0034             | <0.0034             | <0.0034              | <0.0033              | <0.0035              | NA                   | NS                   | NA                   | 0.0036  |
| <b>Methoxychlor</b>        | <0.0020             | <0.0019             | <0.0019              | <0.0019              | <0.0020              | NA                   | NS                   | NA                   | 0.030   |
| <b>Toxaphene</b>           | <0.059              | <0.058              | 0.058                | <0.057               | <0.060               | NA                   | NS                   | NA                   | 0.0002  |

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*Italicized Values* - Not detected at the method detection limit (MDL) or laboratory reporting limit (RL). MDL or RL value listed.

Shaded, italicized values = MDL or RL value listed exceeds DOH EAL.

Lindane = Sum of Alpha-BHC, Beta BHC, Gamma-BHC, and Delta-BHC

Endrin = Sum of Endrin, Endrin Aldehyde, and Endrin Ketone

Endosulfan = Sum of Endosulfan I, Endosulfan II, and Endosulfan Sulfate

NS = Not Sampled

NA = Not Analyzed

EPA Method 8260C/5030B

All results in milligrams per liter.

(a)  $\mathbb{R}^n$  is a vector space over  $\mathbb{R}$  and  $\mathbb{C}$ .

| SSAMPLE ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MW1<br>(2003.B2,GW) | MW2<br>(2003.B19,GW) | MW3<br>(2003.B23,GW) | MW4<br>(2003.B23,GW) | MW5<br>(2003.B30,GW) | MW6<br>(2003.MW6,GW) | MW7<br>(2003.MW7,GW) | MW8<br>(2003.MW8,GW) | DOH EAL |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------|
| 1,1,1,1 - Trichloroethane<br>1,1,1,2 - Tetrachloroethane<br>1,1,2 - Trichloroethane<br>1,2,3 - Trichloropropane<br>1,2,4 - Trichlorobenzene<br>1,1,2,2 - Tetrachloroethane<br>1,1 - Dichloroethene<br>1,1 - Dichloroethane<br>1,1 - Dichloropropene<br>1,2 - Dibromo-3-chloropropane<br>1,2 - Dichloroethane (EDC)<br>1,2 - Dibromoethane (EDB)<br>1,2 - Dichlorobenzene<br>1,2,2 - Dichloroethene<br>1,2 - Dichloropropane<br>1,3 - Dichloropropane<br>1,3 - Dichlorobenzene<br>1,4 - Dichlorobenzene | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 11      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 11      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 110     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 14      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -2.0                 | NS                   | -2.0                 | 110     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 200     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -1.0                 | NS                   | -1.0                 | 47      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 47      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 71      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -2.0                 | NS                   | -2.0                 | 0.04    |
| Benzene<br>Bromodichloromethane<br>Bromoform<br>Bromomethane<br>Carbon Tetrachloride<br>Chlorobenzene<br>Chloroethane<br>Chloromethane<br>Chloroform<br>Dibromochloromethane<br>Edybenzene<br>Hexachlorobutadiene<br>Methylene-chloride<br>Methyl t-butyl ether (MTBE)<br>Naphthalene<br>Styrene<br>Toluene<br>Trichloroethene<br>Vinyl Chloride<br>Xylenes                                                                                                                                            | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 180     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 19      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 14      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 620     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 100     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 0.06    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 22      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 9.4     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 71      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 110     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -1.0                 | NS                   | -1.0                 | 280     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -1.0                 | NS                   | -1.0                 | 16      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 9.8     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 25      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -1.0                 | NS                   | -1.0                 | 160     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -1.0                 | NS                   | -1.0                 | 190     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 28      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 34      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 7.3     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -2.0                 | NS                   | -2.0                 | 0.3     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -5.0                 | NS                   | -5.0                 | 1,500   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 7,300   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -2.0                 | NS                   | -2.0                 | 12      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 32      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 9.8     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 53      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.2                 | NS                   | -0.2                 | 18      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                  | NA                   | NA                   | NA                   | NA                   | -0.5                 | NS                   | -0.5                 | 13      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |                      |                      |                      |                      |                      |                      |                      |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |                      |                      |                      |                      |                      |                      |                      |         |

2011 EAL—Summer 2016 (Updated Fall 2017) Hawaii Department of Health (DOH) Environmental Action Levels (EALs) for areas where

drinking water source is not threatened and where the nearest surface water body is located less than 1 kilometers from the site.

*Italicized Values = Not detected at the method detection limit (MDL) or laboratory reporting limit (RL). A/DL or RL value listed.*

*Italicized, shaded with*

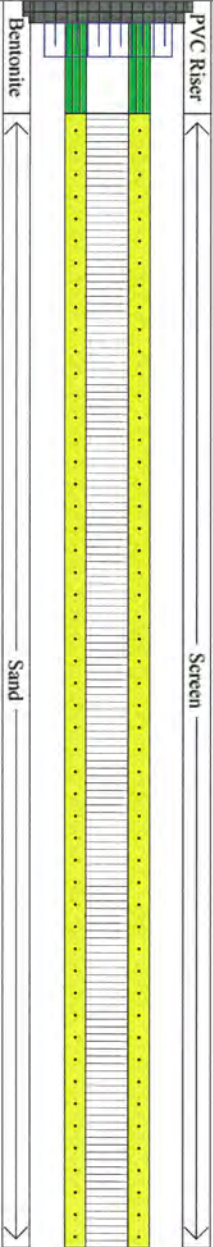
NS - Not Sampled

DRAFT

**APPENDIX 4**  
**BORING LOGS AND MONITORING WELL DIAGRAMS**

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B1                                                                            |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B1.48-60 |                                                                                                |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                    |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Brown Fill<br>No visual or olfactory indications of contamination.                             |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination. |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 5                                                                                 | 935  | 2003.B1.48-60      | 0.1                                                                                                                                                                                                                                                                                |                                                                                                |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |



| FIELD BOREHOLE LOG                                                                |      |               |                                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B2                                                                                       |                                                                                      |
|-----------------------------------------------------------------------------------|------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |               | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push / 5' MacroCore<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 11 feet bgs<br>SAMPLE DESCRIPTION 2003.B2.42-54 |                                                                                                           |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID     | PID (ppmv)                                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                               | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |               |                                                                                                                                                                                                                                                                                                    | 2" Asphalt Layer                                                                                          |  |
| -1                                                                                |      |               |                                                                                                                                                                                                                                                                                                    | 4" Coral Layer (50%) with Light Brown Sand (50%)<br>No visual or olfactory indications of contamination.  |                                                                                      |
| -2                                                                                |      |               |                                                                                                                                                                                                                                                                                                    | Dark Brown Fill (80%) with Light Brown Sand (20%)<br>No visual or olfactory indications of contamination. |                                                                                      |
| -3                                                                                |      |               | 0.1                                                                                                                                                                                                                                                                                                | Brown Sand (90%) with coral (10%)<br>No visual or olfactory indications of contamination.                 |                                                                                      |
| -4                                                                                | 1145 | 2003.B2.42-54 | 0.0                                                                                                                                                                                                                                                                                                |                                                                                                           |                                                                                      |
| -5                                                                                |      |               | Groundwater Encountered                                                                                                                                                                                                                                                                            |                                                                                                           |                                                                                      |
| -6                                                                                |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -7                                                                                |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -8                                                                                |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -9                                                                                |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -10                                                                               |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -11                                                                               |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |
| -12                                                                               |      |               |                                                                                                                                                                                                                                                                                                    |                                                                                                           |                                                                                      |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B3                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B3.42-54 |                                                                                                          |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                              |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Brown Fill<br>No visual or olfactory indications of contamination.                                       |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 4                                                                                 | 950  | 2003.B3.42-54      | 0.2                                                                                                                                                                                                                                                                                | Saturated Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination. |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B4                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B4.42-54 |                                                                                                          |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                              |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Brown Fill<br>No visual or olfactory indications of contamination.                                       |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 4                                                                                 | 910  | 2003.B4.42-54      | 0.1                                                                                                                                                                                                                                                                                | Saturated Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination. |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |

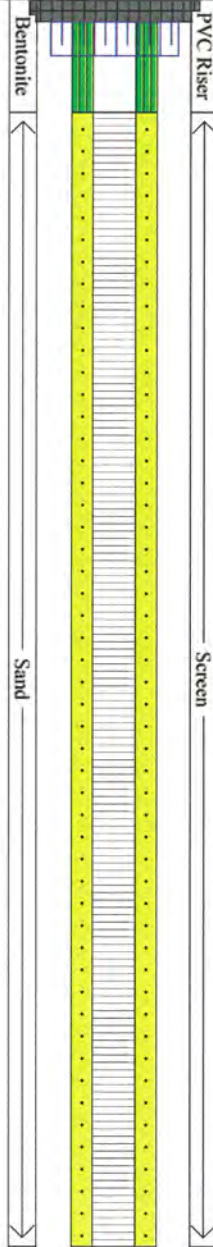
|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B5                                                                                            |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B5.48-60 |                                                                                                                |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                                    |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination.      |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Dark Brown Sand (90%) and Apparent Stained Coral (10%)<br>No visual or olfactory indications of contamination. |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                                |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                                |  |
| 4                                                                                 | 925  | 2003.B5.48-60      | 0.1                                                                                                                                                                                                                                                                                |                                                                                                                |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                                |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                                |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B6                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B6.48-60 |                                                                                                          |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                              |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Fine Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |
| 5                                                                                 | 900  | 2003.B6.48-60      | 0.3                                                                                                                                                                                                                                                                                |                                                                                                          |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                          |  |



|                                                                                   |      | FIELD BOREHOLE LOG                                                                                                                                                                                                                                                                 |            | BOREHOLE NUMBER: B7                                                                                      |
|-----------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------|
|  |      | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B7.48-60 |            |                                                                                                          |
| DEPTH                                                                             | TIME | SAMPLE ID                                                                                                                                                                                                                                                                          | PID (ppmv) | DESCRIPTION                                                                                              |
| 0                                                                                 |      |                                                                                                                                                                                                                                                                                    |            | 2" Asphalt layer<br>No visual or olfactory indications of contamination.                                 |
| -1                                                                                |      |                                                                                                                                                                                                                                                                                    |            | Dark Brown Silty Soil (90%) and Rock (10%)<br>No visual or olfactory indications of contamination.       |
| -2                                                                                |      |                                                                                                                                                                                                                                                                                    |            |                                                                                                          |
| -3                                                                                |      |                                                                                                                                                                                                                                                                                    |            | Fine Brown Fill (80%) and Light Brown Sand (20%)<br>No visual or olfactory indications of contamination. |
| -4                                                                                | 1545 | 2003.B7.48-60                                                                                                                                                                                                                                                                      | 0.2        | Light Brown Sand (>95%) and Coral (<5%)<br>No visual or olfactory indications of contamination.          |
| -5                                                                                |      |                                                                                                                                                                                                                                                                                    |            |                                                                                                          |
| -6                                                                                |      |                                                                                                                                                                                                                                                                                    |            |                                                                                                          |
| -7                                                                                |      |                                                                                                                                                                                                                                                                                    |            |                                                                                                          |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                    | BOREHOLE NUMBER: B8                                                                            |  |
|-----------------------------------------------------------------------------------|------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B8.48-60 |                                                                                                |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                    |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Brown Fill<br>No visual or olfactory indications of contamination.                             |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination. |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |
| 5                                                                                 | 958  | 2003.B8.48-60      | 0.2                                                                                                                                                                                                                                                                                |                                                                                                |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                    |                                                                                                |  |

| FIELD BOREHOLE LOG                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            | BOREHOLE NUMBER: B9                                                                       |                                                                                      |
|-----------------------------------------------------------------------------------|------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |               | PROJECT NUMBER: <b>14-2003</b><br>PROJECT NAME: <b>Kahului Harbor Project</b><br>DRILLING COMPANY: <b>GeoTek Hawaii, Inc.</b><br>DRILLING METHOD: <b>Direct Push / 5' MacroCore</b><br>SAMPLE COLLECTOR: <b>M. Moore / S. Nakashima / B. Starks</b><br>DATE: <b>5/5/14</b><br>END OF BORING: <b>11 feet bgs</b><br>SAMPLE DESCRIPTION <b>2003.B9.48-60</b> |                                                                                           |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID     | PID (ppmv)                                                                                                                                                                                                                                                                                                                                                 | DESCRIPTION                                                                               | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |               |                                                                                                                                                                                                                                                                                                                                                            | Asphalt                                                                                   |  |
| -1                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            | Coral<br>No visual or olfactory indications of contamination.                             |                                                                                      |
| -2                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            | Dark Brown Fill<br>No visual or olfactory indications of contamination.                   |                                                                                      |
| -3                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            | Brown Sand (90%) with coral (10%)<br>No visual or olfactory indications of contamination. |                                                                                      |
| -4                                                                                | 1440 | 2003.B9.48-60 | 0.6                                                                                                                                                                                                                                                                                                                                                        |                                                                                           |                                                                                      |
| -5                                                                                |      |               | <br>Groundwater Encountered                                                                                                                                                                                                                                             |                                                                                           |                                                                                      |
| -6                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -7                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -8                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -9                                                                                |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -10                                                                               |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -11                                                                               |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |
| -12                                                                               |      |               |                                                                                                                                                                                                                                                                                                                                                            |                                                                                           |                                                                                      |

| FIELD BOREHOLE LOG                                                                |      |                |            | BOREHOLE NUMBER: B10                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|------|----------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |      |                |            | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B10.48-60 |
| DEPTH                                                                             | TIME | SAMPLE ID      | PID (ppmv) | DESCRIPTION                                                                                                                                                                                                                                                                         |
| 0                                                                                 |      |                |            | 2" Asphalt layer mixed with loose gravel<br>No visual or olfactory indications of contamination.                                                                                                                                                                                    |
| 1                                                                                 |      |                |            | Fine Brown Fill (80%) and Light Brown Sand (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                            |
| 2                                                                                 |      |                |            | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                                      |
| 3                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |
| 4                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |
| 5                                                                                 | 1025 | 2003.B10.48-60 | 0.2        |                                                                                                                                                                                                                                                                                     |
| 6                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |

| FIELD BOREHOLE LOG                                                                |      |                |            | BOREHOLE NUMBER: B11                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|------|----------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |      |                |            | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B11.48-60 |
| DEPTH                                                                             | TIME | SAMPLE ID      | PID (ppmv) | DESCRIPTION                                                                                                                                                                                                                                                                         |
| 0                                                                                 |      |                |            | 2" Asphalt layer mixed with loose gravel<br>No visual or olfactory indications of contamination.                                                                                                                                                                                    |
| 1                                                                                 |      |                |            | Fine Brown Fill (80%) and Light Brown Sand (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                            |
| 2                                                                                 |      |                |            | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                                      |
| 3                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |
| 4                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |
| 5                                                                                 | 1040 | 2003.B11.48-60 | 0.1        |                                                                                                                                                                                                                                                                                     |
| 6                                                                                 |      |                |            |                                                                                                                                                                                                                                                                                     |



|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B12                                                                                     |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B12.48-60 |                                                                                                          |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                              |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | 2" Asphalt layer mixed with loose gravel<br>No visual or olfactory indications of contamination.         |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill (80%) and Light Brown Sand (20%)<br>No visual or olfactory indications of contamination. |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                          |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                          |  |
| 5                                                                                 | 1055 | 2003.B12.48-60     | 0.1                                                                                                                                                                                                                                                                                 | Stained Dark Brown Sand (80%) and Coral (20%)<br>Petroleum odor and staining                             |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                          |  |

| FIELD BOREHOLE LOG                                                                |      |                |            | BOREHOLE NUMBER: B13                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|------|----------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |      |                |            | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B13.48-60 |
| DEPTH                                                                             | TIME | SAMPLE ID      | PID (ppmv) | DESCRIPTION                                                                                                                                                                                                                                                                         |
| 0                                                                                 |      |                |            | 2" Asphalt layer mixed with loose gravel<br>No visual or olfactory indications of contamination.                                                                                                                                                                                    |
| -1                                                                                |      |                |            | Fine Brown Fill (80%) and Light Brown Sand (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                            |
| -2                                                                                |      |                |            | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                                                                                                                                                                                      |
| -3                                                                                |      |                |            |                                                                                                                                                                                                                                                                                     |
| -4                                                                                |      |                |            |                                                                                                                                                                                                                                                                                     |
| -5                                                                                | 1125 | 2003.B13.48-60 | 0.3        |                                                                                                                                                                                                                                                                                     |
| -6                                                                                |      |                |            |                                                                                                                                                                                                                                                                                     |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B14                                                                                        |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B14.48-60 |                                                                                                             |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                 |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill (50%) mixed with loose gravel (50%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.              |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                             |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                             |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                             |  |
| 5                                                                                 | 1600 | 2003.B14.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                             |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                             |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B15                                                                                              |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B15.48-60 |                                                                                                                   |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                       |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill (50%) mixed with loose gravel (50%)<br>No visual or olfactory indications of contamination.       |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                   |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Reddish/Brown Fill (80%) with Light Brown Sand (20%)<br>No visual or olfactory indications of contamination. |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                    |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                   |  |
| 5                                                                                 | 1645 | 2003.B15.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                                   |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                   |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B16                                                                                  |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B16.48-60 |                                                                                                       |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                           |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill<br>No visual or olfactory indications of contamination.                               |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Loose Gravel/Rock (70%) and apparent bitumuls (30%)<br>Black stains and apparent petroleum smell odor |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.        |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Dark Black Bitumuls (80%) and Sand (20%)<br>Black stains and slight petroleum odor                    |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |
| 5                                                                                 | 1635 | 2003.B16.48-60     | 0.3                                                                                                                                                                                                                                                                                 |                                                                                                       |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |



|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B17                                                                                          |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B17.48-60 |                                                                                                               |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                   |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill<br>No visual or olfactory indications of contamination.                                       |  |
| -1                                                                                |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                |  |
| -2                                                                                |      |                    |                                                                                                                                                                                                                                                                                     | Loose Gravel (50%) and Reddish/Brown Silty Fill (50%)<br>No visual or olfactory indications of contamination. |  |
| -3                                                                                |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                |  |
| -4                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |
| -5                                                                                | 1640 | 2003.B17.48-60     | 0.2                                                                                                                                                                                                                                                                                 |                                                                                                               |  |
| -6                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B18                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B18.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Fine Brown Fill (70%) with Loose Gravel (30%)<br>No visual or olfactory indications of contamination.     |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.            |  |
| 5                                                                                 | 1450 | 2003.B18.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |

# FIELD BOREHOLE LOG

BOREHOLE NUMBER: B19



PROJECT NUMBER: 14-2003  
 PROJECT NAME: Kahului Harbor Project  
 DRILLING COMPANY: GeoTek Hawaii, Inc.  
 DRILLING METHOD: Direct Push / 5' MacroCore  
 SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks  
 DATE: 5/5/14  
 END OF BORING: 11 feet bgs  
 SAMPLE DESCRIPTION 2003.B19.48-60

| DEPTH | TIME | SAMPLE ID      | PID (ppmv) | DESCRIPTION                                                                                                                    | WELL INSTALLATION |
|-------|------|----------------|------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 0     |      |                |            | 2" Asphalt layer                                                                                                               |                   |
| 1     |      |                |            | Light Brown Sand (80%) and Coral (20%)<br>No visual or olfactory indications of contamination.                                 |                   |
| 2     |      |                |            | Light Brown Sand (90%) with coral (10%)<br>No visual indications of contamination<br>Apparent petroleum odor between 4-5' bgs. |                   |
| 3     |      |                |            |                                                                                                                                |                   |
| 4     | 840  | 2003.B19.48-60 | 0.4        |                                                                                                                                |                   |
| 5     |      |                |            |                                                                                                                                |                   |
| 6     |      |                |            | Groundwater Encountered                                                                                                        |                   |
| 7     |      |                |            |                                                                                                                                |                   |
| 8     |      |                |            |                                                                                                                                |                   |
| 9     |      |                |            |                                                                                                                                |                   |
| 10    |      |                |            |                                                                                                                                |                   |
| 11    |      |                |            |                                                                                                                                |                   |
| 12    |      |                |            |                                                                                                                                |                   |

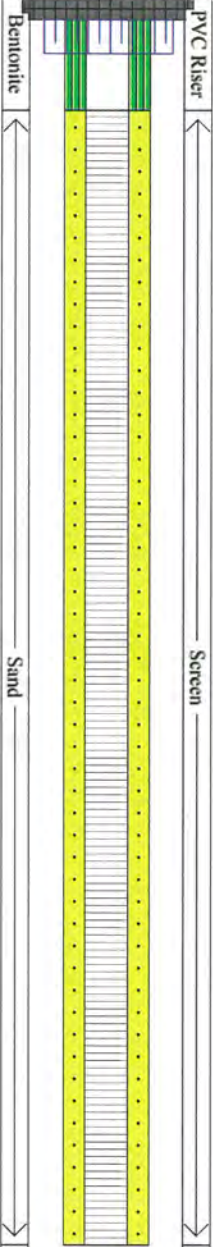
|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B20                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B20.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 5                                                                                 | 835  | 2003.B20.48-60     | 0.0                                                                                                                                                                                                                                                                                 |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B21                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B21.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%).<br>No visual or olfactory indications of contamination.           |  |
| 825                                                                               |      | 2003.B21.48-60     | 0.4                                                                                                                                                                                                                                                                                 |                                                                                                           |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |



|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B22                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B22.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 817                                                                               |      | 2003.B22.48-60     | 0.3                                                                                                                                                                                                                                                                                 | Light Brown Sand (90%) and Coral (10%).<br>No visual or olfactory indications of contamination.           |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B23                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B23.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%).<br>No visual or olfactory indications of contamination.           |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 5                                                                                 | 1750 | 2003.B23.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |

| FIELD BOREHOLE LOG                                                                |      |                |                                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B23                                                                            |                                                                                      |
|-----------------------------------------------------------------------------------|------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |                | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push / 5' MacroCore<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 11 feet bgs<br>SAMPLE DESCRIPTION 2003.B23.48-60 |                                                                                                 |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID      | PID (ppmv)                                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                     | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |                |                                                                                                                                                                                                                                                                                                     | Light Brown/Reddish Brown Fill (90%) with Sand (10%)<br>No visual indications of contamination. |  |
| -1                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -2                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -3                                                                                |      |                |                                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) with coral (10%)<br>No visual indications of contamination.              |                                                                                      |
| -4                                                                                | 1750 | 2003.B23.48-60 | 0.1                                                                                                                                                                                                                                                                                                 |                                                                                                 |                                                                                      |
| -5                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -6                                                                                |      |                | Groundwater Encountered                                                                                                                                                                                                                                                                             |                                                                                                 |                                                                                      |
| -7                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -8                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -9                                                                                |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -10                                                                               |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -11                                                                               |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |
| -12                                                                               |      |                |                                                                                                                                                                                                                                                                                                     |                                                                                                 |                                                                                      |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B24                                                                                             |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B24.48-60 |                                                                                                                  |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                      |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination.        |  |
| -1                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                  |  |
| -2                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                  |  |
| -3                                                                                |      |                    |                                                                                                                                                                                                                                                                                     | Dark Black Sand (90%) and Stain Black Coral (10%)<br>Visual staining of sand and coral, apparent petroleum odor. |  |
| -4                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                  |  |
| -5                                                                                | 1110 | 2003.B24.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                                  |  |
| -6                                                                                |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                  |  |

| FIELD BOREHOLE LOG                                                                |      |                                                       |            | BOREHOLE NUMBER: B25                                                                                                                                              |
|-----------------------------------------------------------------------------------|------|-------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |      | PROJECT NUMBER: 14-2003                               |            |                                                                                                                                                                   |
|                                                                                   |      | PROJECT NAME: Kahului Harbor Project                  |            |                                                                                                                                                                   |
|                                                                                   |      | DRILLING COMPANY: GeoTek Hawaii, Inc.                 |            |                                                                                                                                                                   |
|                                                                                   |      | DRILLING METHOD: Direct Push                          |            |                                                                                                                                                                   |
|                                                                                   |      | SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks |            |                                                                                                                                                                   |
|                                                                                   |      | DATE: 5/6/14                                          |            |                                                                                                                                                                   |
|                                                                                   |      | END OF BORING: 5 feet bgs                             |            |                                                                                                                                                                   |
|                                                                                   |      | SAMPLE DESCRIPTION 2003.B25.48-60                     |            |                                                                                                                                                                   |
| DEPTH                                                                             | TIME | SAMPLE ID                                             | PID (ppmv) | DESCRIPTION                                                                                                                                                       |
| 0                                                                                 |      |                                                       |            | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination.                                                         |
| 1                                                                                 |      |                                                       |            |                                                                                                                                                                   |
| 2                                                                                 |      |                                                       |            | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.                                                                    |
| 3                                                                                 |      |                                                       |            | Grey Concrete Rubble (100%)<br>Visual staining of sand and coral, apparent petroleum odor.                                                                        |
| 4                                                                                 |      |                                                       |            | Light Brown Sand with some staining (90%) and some staining of Black Coral (10%)<br>Visual staining of sand and coral, no olfactory indications of contamination. |
| 5                                                                                 | 1240 | 2003.B25.48-60                                        | 0.2        |                                                                                                                                                                   |
| 6                                                                                 |      |                                                       |            |                                                                                                                                                                   |

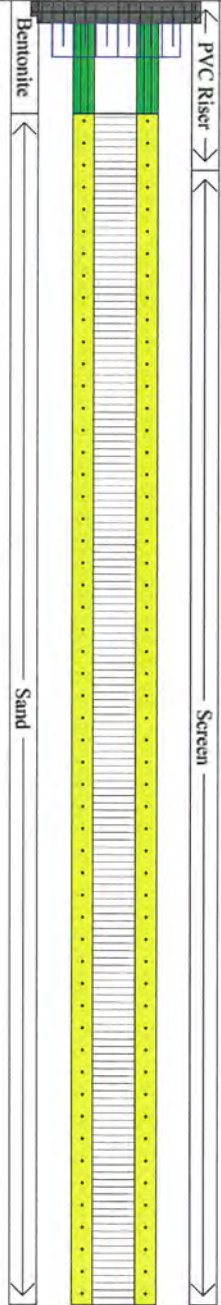


|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B26                                                                                      |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B26.48-60 |                                                                                                           |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                               |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Light Brown Sand (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.            |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |
| 5                                                                                 | 1225 | 2003.B26.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                           |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                           |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                 | BOREHOLE NUMBER: B27                                 |  |
|-----------------------------------------------------------------------------------|------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION: No Sample |                                                      |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                      | DESCRIPTION                                          |  |
| 0                                                                                 | 1220 | No Sample          | N/A                                                                                                                                                                                                                                                                             | Brown Fill                                           |  |
|                                                                                   |      |                    |                                                                                                                                                                                                                                                                                 | No visual or olfactory indications of contamination. |  |
|                                                                                   |      |                    |                                                                                                                                                                                                                                                                                 | Encountered Concrete, discontinued boring            |  |
| -1                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |
| -2                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |
| -3                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |
| -4                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |
| -5                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |
| -6                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                      |  |

|                                                                                   |      | FIELD BOREHOLE LOG                                    |            | BOREHOLE NUMBER: B28                                                                                |
|-----------------------------------------------------------------------------------|------|-------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------|
|  |      | PROJECT NUMBER: 14-2003                               |            |                                                                                                     |
|                                                                                   |      | PROJECT NAME: Kahului Harbor Project                  |            |                                                                                                     |
|                                                                                   |      | DRILLING COMPANY: GeoTek Hawaii, Inc.                 |            |                                                                                                     |
|                                                                                   |      | DRILLING METHOD: Direct Push                          |            |                                                                                                     |
|                                                                                   |      | SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks |            |                                                                                                     |
|                                                                                   |      | DATE: 5/6/14                                          |            |                                                                                                     |
|                                                                                   |      | END OF BORING: 5 feet bgs                             |            |                                                                                                     |
|                                                                                   |      | SAMPLE DESCRIPTION 2003.B28.24-36                     |            |                                                                                                     |
| DEPTH                                                                             | TIME | SAMPLE ID                                             | PID (ppmv) | DESCRIPTION                                                                                         |
| 0                                                                                 |      |                                                       |            | Fine Brown Fill (60%) and Rock Rubble (40%)<br>No visual or olfactory indications of contamination. |
| -1                                                                                |      |                                                       |            |                                                                                                     |
| -2                                                                                |      |                                                       |            | Dark Brown Mud (100%)<br>No visual or olfactory indications of contamination.                       |
| -3                                                                                | 1215 | 2003.B28.24-36                                        | 0.1        | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.      |
| -4                                                                                |      |                                                       |            |                                                                                                     |
| -5                                                                                |      |                                                       |            |                                                                                                     |
| -6                                                                                |      |                                                       |            |                                                                                                     |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B29                                                                                          |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B29.48-60 |                                                                                                               |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                   |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Reddish/Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.                |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |
| 5                                                                                 | 1120 | 2003.B29.48-60     | 0.5                                                                                                                                                                                                                                                                                 |                                                                                                               |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                               |  |

| FIELD BOREHOLE LOG                                                                |      |                |                                                                                                                                                                                                                                                                                                       | BOREHOLE NUMBER: B30                                                                            |                                                                                      |
|-----------------------------------------------------------------------------------|------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |                | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push / 5' MacroCore<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/5/14<br>END OF BORING: 11.5 feet bgs<br>SAMPLE DESCRIPTION 2003.B30.48-60 |                                                                                                 |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID      | PID (ppmv)                                                                                                                                                                                                                                                                                            | DESCRIPTION                                                                                     | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       | Light Brown/Reddish Brown Fill (90%) with Sand (10%)<br>No visual indications of contamination. |  |
| 1                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 2                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       | Light Brown Sand (90%) with coral (10%)<br>No visual indications of contamination.              |                                                                                      |
| 3                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 4                                                                                 | 1005 | 2003.B30.48-60 | 0.2                                                                                                                                                                                                                                                                                                   |                                                                                                 |                                                                                      |
| 5                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 6                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 7                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 8                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 9                                                                                 |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 10                                                                                |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 11                                                                                |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |
| 12                                                                                |      |                |                                                                                                                                                                                                                                                                                                       |                                                                                                 |                                                                                      |

  
 Groundwater  
 Encountered



|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B31                                                                                  |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B31.48-60 |                                                                                                       |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                           |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.        |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |
| 5                                                                                 | 1120 | 2003.B31.48-60     | 0.2                                                                                                                                                                                                                                                                                 |                                                                                                       |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                       |  |

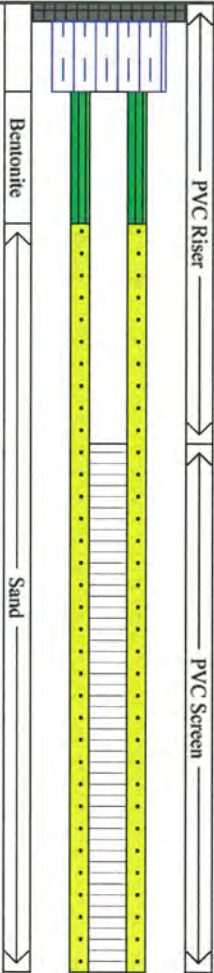
|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                 | BOREHOLE NUMBER: B33                                                                                                       |  |
|-----------------------------------------------------------------------------------|------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION: No Sample |                                                                                                                            |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                      | DESCRIPTION                                                                                                                |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                 | 2" Asphalt layer with Dark Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| -1                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |
| -2                                                                                |      |                    |                                                                                                                                                                                                                                                                                 | Void Sapce<br>No visual or olfactory indications of contamination.                                                         |  |
| -3                                                                                | 1100 | No Sample          | N/A                                                                                                                                                                                                                                                                             |                                                                                                                            |  |
| -4                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |
| -5                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |
| -6                                                                                |      |                    |                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |

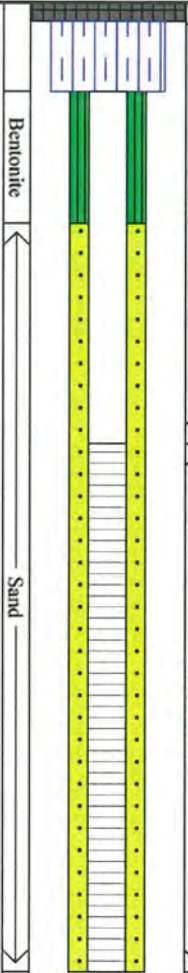
|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B34                                                                                                       |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B34.48-60 |                                                                                                                            |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                                |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | 2" Asphalt layer with Dark Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.                             |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |
| 5                                                                                 | 1105 | 2003.B34.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |

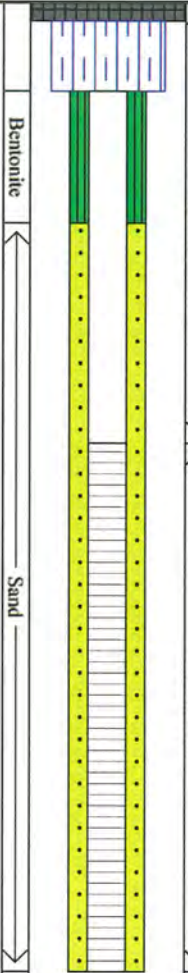
|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B35                                                                                 |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B35.60-72 |                                                                                                      |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                          |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Dark Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                      |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                      |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                      |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | 5"-6" of Concrete Rubble (100%)<br>No visual or olfactory indications of contamination.              |  |
| 5                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.       |  |
| 6                                                                                 | 810  | 2003.B35.60-72     | 0.0                                                                                                                                                                                                                                                                                 |                                                                                                      |  |
| 7                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                      |  |

|                                                                                   |      | FIELD BOREHOLE LOG |                                                                                                                                                                                                                                                                                     | BOREHOLE NUMBER: B36                                                                                                       |  |
|-----------------------------------------------------------------------------------|------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--|
|  |      |                    | PROJECT NUMBER: 14-2003<br>PROJECT NAME: Kahului Harbor Project<br>DRILLING COMPANY: GeoTek Hawaii, Inc.<br>DRILLING METHOD: Direct Push<br>SAMPLE COLLECTOR: M. Moore / S. Nakashima / B. Starks<br>DATE: 5/6/14<br>END OF BORING: 5 feet bgs<br>SAMPLE DESCRIPTION 2003.B36.48-60 |                                                                                                                            |  |
| DEPTH                                                                             | TIME | SAMPLE ID          | PID (ppmv)                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                                |  |
| 0                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | 2" Asphalt layer with Dark Brown Fill (90%) and Loose Gravel (10%)<br>No visual or olfactory indications of contamination. |  |
| 1                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Brown Fill<br>No visual or olfactory indications of contamination.                                                         |  |
| 2                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     | Light Brown Sand (90%) and Coral (10%)<br>No visual or olfactory indications of contamination.                             |  |
| 3                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |
| 4                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |
| 5                                                                                 | 1015 | 2003.B36.48-60     | 0.1                                                                                                                                                                                                                                                                                 |                                                                                                                            |  |
| 6                                                                                 |      |                    |                                                                                                                                                                                                                                                                                     |                                                                                                                            |  |



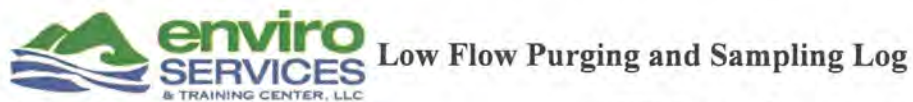
| FIELD BOREHOLE LOG                                                                |      |           |                                                                                                                                                                                                                                                                           | BOREHOLE NUMBER: MW-06                                                                                 |                                                                                      |
|-----------------------------------------------------------------------------------|------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |           | PROJECT NUMBER: <b>14-2003</b><br>PROJECT NAME: <b>Kahului Harbor Project</b><br>DRILLING COMPANY: <b>GeoTek Hawaii, Inc.</b><br>SAMPLE COLLECTOR: <b>E. Kakone</b><br>DATE: <b>6/5/2018</b><br>END OF BORING <b>11 feet bgs</b><br>SAMPLE COLLECTED: <b>2003.MW.6.GW</b> |                                                                                                        |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID | GW Depth<br>(ft. bgs)                                                                                                                                                                                                                                                     | DESCRIPTION                                                                                            | WELL<br>INSTALLATION                                                                 |
| 0                                                                                 |      |           |                                                                                                                                                                                                                                                                           | Fine Brown Fill (90%) and Light Brown Sand (10%). No visual or olfactory indications of contamination. |  |
| -1                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -2                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -3                                                                                |      |           |                                                                                                                                                                                                                                                                           | Light Brown Sand (80%) and Coral Fragments (20%). No visual or olfactory indications of contamination. |                                                                                      |
| -4                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -5                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -6                                                                                |      |           |                                                                                                                                                                                                                                                                           | Brown Sand (90%) and Coral Fragments (10%). No visual or olfactory indications of contamination.       |                                                                                      |
| -7                                                                                |      |           | Groundwater<br>Encountered                                                                                                                                                                                                                                                |                                                                                                        |                                                                                      |
| -8                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -9                                                                                |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -10                                                                               |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -11                                                                               |      |           |                                                                                                                                                                                                                                                                           | End of Boring                                                                                          |                                                                                      |
| -12                                                                               |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -13                                                                               |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -14                                                                               |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |
| -15                                                                               |      |           |                                                                                                                                                                                                                                                                           |                                                                                                        |                                                                                      |

| FIELD BOREHOLE LOG                                                                |      |           |                                                                                                                                                                                                                                                                          | BOREHOLE NUMBER: MW-08                                                                                 |                                                                                      |
|-----------------------------------------------------------------------------------|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |           | PROJECT NUMBER: <b>14-2003</b><br>PROJECT NAME: <b>Kahului Harbor Project</b><br>DRILLING COMPANY: <b>GeoTek Hawaii, Inc.</b><br>SAMPLE COLLECTOR: <b>E. Kakone</b><br>DATE: <b>6/5/2018</b><br>END OF BORING <b>11 feet bgs</b><br>SAMPLE COLLECTED: <b>2003.MW8.GW</b> |                                                                                                        |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID | GW Depth (ft. bgs)                                                                                                                                                                                                                                                       | DESCRIPTION                                                                                            | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |           |                                                                                                                                                                                                                                                                          | Fine Brown Fill (90%) and Rock (10%). No visual or olfactory indications of contamination.             |  |
| -1                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -2                                                                                |      |           |                                                                                                                                                                                                                                                                          | Light Brown Sand (90%) and Coral Fragments (10%). No visual or olfactory indications of contamination. |                                                                                      |
| -3                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -4                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -5                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -6                                                                                |      |           | Groundwater Encountered                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -7                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -8                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -9                                                                                |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -10                                                                               |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -11                                                                               |      |           |                                                                                                                                                                                                                                                                          | End of Boring                                                                                          |                                                                                      |
| -12                                                                               |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -13                                                                               |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -14                                                                               |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |
| -15                                                                               |      |           |                                                                                                                                                                                                                                                                          |                                                                                                        |                                                                                      |

| FIELD BOREHOLE LOG                                                                |      |           |                                                                                                                                                                                                                                                                                  | BOREHOLE NUMBER: MW-07                                                                                 |                                                                                      |
|-----------------------------------------------------------------------------------|------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |      |           | PROJECT NUMBER: <b>14-2003</b><br>PROJECT NAME: <b>Kahului Harbor Project</b><br>DRILLING COMPANY: <b>GeoTek Hawaii, Inc.</b><br>SAMPLE COLLECTOR: <b>E. Kakone</b><br>DATE: <b>6/5/2018</b><br>END OF BORING <b>11 feet bgs</b><br>SAMPLE COLLECTED: <b>No Sample Collected</b> |                                                                                                        |                                                                                      |
| DEPTH                                                                             | TIME | SAMPLE ID | GW Depth (ft. bgs)                                                                                                                                                                                                                                                               | DESCRIPTION                                                                                            | WELL INSTALLATION                                                                    |
| 0                                                                                 |      |           |                                                                                                                                                                                                                                                                                  | Fine Brown Fill (70%) and Rock (30%). No visual or olfactory indications of contamination.             |  |
| -1                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -2                                                                                |      |           |                                                                                                                                                                                                                                                                                  | Light Brown Sand (80%) and Coral Fragments (20%). No visual or olfactory indications of contamination. |                                                                                      |
| -3                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -4                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -5                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -6                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -7                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -8                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -9                                                                                |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -10                                                                               |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -11                                                                               |      |           |                                                                                                                                                                                                                                                                                  | End of Boring                                                                                          |                                                                                      |
| -12                                                                               |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -13                                                                               |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -14                                                                               |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |
| -15                                                                               |      |           |                                                                                                                                                                                                                                                                                  |                                                                                                        |                                                                                      |

DRAFT

**APPENDIX 5**  
**WATER QUALITY DATA**



 **enviro**  
SERVICES  
& TRAINING CENTER, LLC

ETC Personnel: Bryan Starks, Matt Moore

ETC Personnel: Bryan Starks, Matt Moore

Date: 5/6/2014

| Pump/Tubing Type: Submersible Bladder Pump<br>Teflon tubing (0.25 ID, 0.375 OD) |                  |               |                 |              | Well ID: <b>B2/MW1</b>       |                 |               |              |          |
|---------------------------------------------------------------------------------|------------------|---------------|-----------------|--------------|------------------------------|-----------------|---------------|--------------|----------|
| Equipment Decontamination:<br>Alconox/potable water                             |                  |               |                 |              | Casing Radius: 2"            |                 |               |              |          |
| Purge Water Disposal:<br>55-gallon drum                                         |                  |               |                 |              | Total Depth: 11              |                 |               |              |          |
|                                                                                 |                  |               |                 |              | Depth to Water (DTW): 4.5    |                 |               |              |          |
| Start Pump: 1545                                                                |                  |               |                 |              | Pump Intake Depth: 8.5       |                 |               |              |          |
| Time                                                                            | Flow<br>(mL/min) | Volume<br>(L) | DTW<br>(ft bgs) | Temp<br>(°F) | pH                           | Cond<br>(µS/cm) | Turb<br>(NTU) | DO<br>(mg/L) | Comments |
| 1549                                                                            | 460              | 1.84          | -               | 82.9         | 8.13                         | 5.68            | 184           | -            |          |
| 1552                                                                            | 460              | 3.22          | -               | 82.4         | 8.20                         | 6.14            | 123           | -            |          |
| 1555                                                                            | 460              | 4.6           | -               | 82.2         | 8.23                         | 6.12            | 80.7          | -            |          |
| 1558                                                                            | 460              | 5.98          | -               | 82.2         | 8.24                         | 6.33            | 54.6          | -            |          |
| 1601                                                                            | 460              | 7.36          | -               | 82.3         | 8.25                         | 6.27            | 35.2          | -            |          |
| 1604                                                                            | 460              | 8.74          | -               | 82.2         | 8.26                         | 6.43            | 24.9          | -            |          |
| 1608                                                                            | 460              | 10.58         | -               | 82.1         | 8.27                         | 6.42            | 17.0          | -            |          |
| 1611                                                                            | 460              | 11.96         | -               | 82.1         | 8.27                         | 6.38            | 14.9          | -            |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
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|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
| Stop Pump: 1630                                                                 |                  |               |                 |              | Sample Time: 1615            |                 |               |              |          |
| Laboratory: Accutest                                                            |                  |               |                 |              | Sample ID: <b>2003.B2.GW</b> |                 |               |              |          |

Observations/Comments:





## Low Flow Purging and Sampling Log

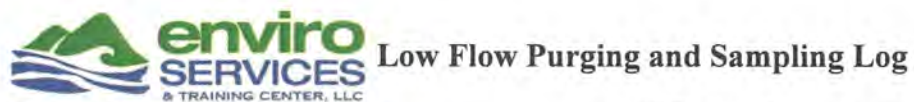
ETC Personnel: Bryan Starks, Matt Moore

ETC Personnel: Bryan Starks, Matt Moore

Date: 5/6/2014

| Pump/Tubing Type: Submersible Bladder Pump<br>Teflon tubing (0.25 ID, 0.375 OD) |                  |               |                 |              | Well ID: <b>B9/MW2</b>       |                 |               |              |          |
|---------------------------------------------------------------------------------|------------------|---------------|-----------------|--------------|------------------------------|-----------------|---------------|--------------|----------|
| Equipment Decontamination:<br>Alconox/potable water                             |                  |               |                 |              | Casing Radius: 2"            |                 |               |              |          |
| Purge Water Disposal:<br>55-gallon drum                                         |                  |               |                 |              | Total Depth: 11              |                 |               |              |          |
|                                                                                 |                  |               |                 |              | Depth to Water (DTW): 6.8    |                 |               |              |          |
| Start Pump: 1710                                                                |                  |               |                 |              | Pump Intake Depth: 8.85      |                 |               |              |          |
| Time                                                                            | Flow<br>(mL/min) | Volume<br>(L) | DTW<br>(ft bgs) | Temp<br>(°F) | pH                           | Cond<br>(µS/cm) | Turb<br>(NTU) | DO<br>(mg/L) | Comments |
| 1715                                                                            | 450              | 2.25          | -               | 80.2         | 8.07                         | 8.15            | 113           | -            |          |
| 1718                                                                            | 450              | 3.6           | -               | 80.2         | 8.12                         | 8.12            | 117           | -            |          |
| 1721                                                                            | 450              | 4.95          | -               | 80.1         | 8.17                         | 8.73            | 111.0         | -            |          |
| 1724                                                                            | 450              | 6.3           | -               | 80.0         | 8.18                         | 8.89            | 85.7          | -            |          |
| 1727                                                                            | 450              | 7.65          | -               | 80.0         | 8.19                         | 8.97            | 53.5          | -            |          |
| 1730                                                                            | 450              | 9             | -               | 79.9         | 8.20                         | 9.02            | 36.2          | -            |          |
| 1733                                                                            | 450              | 10.35         | -               | 79.9         | 8.20                         | 9.06            | 21.9          | -            |          |
| 1736                                                                            | 450              | 11.7          | -               | 79.9         | 8.20                         | 9.1             | 13.2          | -            |          |
| 1739                                                                            | 450              | 13.05         | -               | 79.8         | 8.20                         | 9.11            | 10.5          | -            |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                              |                 |               |              |          |
| Stop Pump: 1800                                                                 |                  |               |                 |              | Sample Time: 1745            |                 |               |              |          |
| Laboratory: Accutest                                                            |                  |               |                 |              | Sample ID: <b>2003.B9.GW</b> |                 |               |              |          |

Observations/Comments:



### Low Flow Purging and Sampling Log

Project Name: Kahului Harbor

ETC Personnel: Bryan Starks, Matt Moore

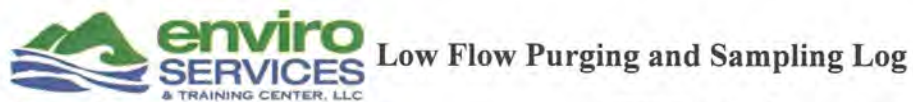
Project No.: 14-2003

Date: 5/6/2014

Location: Kahului Harbor

|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|---------------------------------------------------------------------------------|------------------|---------------|-----------------|--------------|----------------------------|-----------------|---------------|--------------|----------|
| Pump/Tubing Type: Submersible Bladder Pump<br>Teflon tubing (0.25 ID, 0.375 OD) |                  |               |                 |              | Well ID: B19/MW3           |                 |               |              |          |
| Equipment Decontamination:<br>Alconox/potable water                             |                  |               |                 |              | Casing Radius: 2"          |                 |               |              |          |
| Purge Water Disposal:<br>55-gallon drum                                         |                  |               |                 |              | Total Depth: 11            |                 |               |              |          |
|                                                                                 |                  |               |                 |              | Depth to Water (DTW): 5.88 |                 |               |              |          |
| Start Pump: 1435                                                                |                  |               |                 |              | Pump Intake Depth: 9       |                 |               |              |          |
| Time                                                                            | Flow<br>(mL/min) | Volume<br>(L) | DTW<br>(ft bgs) | Temp<br>(°F) | pH                         | Cond<br>(µS/cm) | Turb<br>(NTU) | DO<br>(mg/L) | Comments |
| 1438                                                                            | 500              | 1.5           | -               | 82.6         | 7.77                       | 8.92            | 109           | -            |          |
| 1441                                                                            | 500              | 3             | -               | 82.4         | 7.78                       | 8.92            | 80.3          | -            |          |
| 1444                                                                            | 500              | 4.5           | -               | 82.4         | 7.80                       | 8.94            | 49.4          | -            |          |
| 1447                                                                            | 500              | 6             | -               | 82.3         | 7.84                       | 8.99            | 28.3          | -            |          |
| 1450                                                                            | 500              | 7.5           | -               | 82.3         | 7.86                       | 9.00            | 21.8          | -            |          |
| 1453                                                                            | 500              | 9             | -               | 82.3         | 7.89                       | 9.01            | 14.4          | -            |          |
| 1456                                                                            | 500              | 10.5          | -               | 82.3         | 7.90                       | 9.01            | 12.8          | -            |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                            |                 |               |              |          |
| Stop Pump: 1515                                                                 |                  |               |                 |              | Sample Time: 1500          |                 |               |              |          |
| Laboratory: Accutest                                                            |                  |               |                 |              | Sample ID: 2003.B19.GW     |                 |               |              |          |

Observations/Comments:



 **enviro**  
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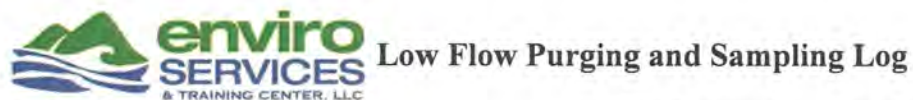
ETC Personnel: Bryan Starks, Matt Moore

ETC Personnel: Bryan Starks, Matt Moore

Date: 5/6/2014

| Pump/Tubing Type: Submersible Bladder Pump<br>Teflon tubing (0.25 ID, 0.375 OD) |                  |               |                 |              | Well ID: <b>B23/MW4</b>       |                 |               |              |          |
|---------------------------------------------------------------------------------|------------------|---------------|-----------------|--------------|-------------------------------|-----------------|---------------|--------------|----------|
| Equipment Decontamination:<br>Alconox/potable water                             |                  |               |                 |              | Casing Radius: 2"             |                 |               |              |          |
| Purge Water Disposal:<br>55-gallon drum                                         |                  |               |                 |              | Total Depth: 11               |                 |               |              |          |
|                                                                                 |                  |               |                 |              | Depth to Water (DTW): 5.88    |                 |               |              |          |
| Start Pump: 1435                                                                |                  |               |                 |              | Pump Intake Depth: 9          |                 |               |              |          |
| Time                                                                            | Flow<br>(mL/min) | Volume<br>(L) | DTW<br>(ft bgs) | Temp<br>(°F) | pH                            | Cond<br>(µS/cm) | Turb<br>(NTU) | DO<br>(mg/L) | Comments |
| 1828                                                                            | 450              | 2.25          | -               | 79.9         | 8.27                          | 10.3            | 420           | -            |          |
| 1831                                                                            | 450              | 3.6           | -               | 79.9         | 8.29                          | 10.3            | 194           | -            |          |
| 1834                                                                            | 450              | 4.95          | -               | 79.9         | 8.30                          | 10.3            | 119.0         | -            |          |
| 1837                                                                            | 450              | 6.3           | -               | 80.0         | 8.30                          | 10.3            | 91.3          | -            |          |
| 1840                                                                            | 450              | 7.65          | -               | 80.0         | 8.31                          | 10.2            | 76.6          | -            |          |
| 1843                                                                            | 450              | 9             | -               | 80.0         | 8.32                          | 10.3            | 58.8          | -            |          |
| 1846                                                                            | 450              | 10.35         | -               | 80.0         | 8.32                          | 10.2            | 41.6          | -            |          |
| 1849                                                                            | 450              | 11.7          |                 | 79.9         | 8.32                          | 10.3            | 31.9          |              |          |
| 1852                                                                            | 450              | 13.05         |                 | 79.9         | 8.32                          | 10.3            | 23.5          |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
|                                                                                 |                  |               |                 |              |                               |                 |               |              |          |
| Stop Pump: 1910                                                                 |                  |               |                 |              | Sample Time: 1855             |                 |               |              |          |
| Laboratory: Accutest                                                            |                  |               |                 |              | Sample ID: <b>2003.B23.GW</b> |                 |               |              |          |

Observations/Comments:




**enviro**  
**SERVICES**  
 & TRAINING CENTER, LLC

ETC Personnel: Bryan Starks, Matt Moore

ETC Personnel: Bryan Starks, Matt Moore

Date: 5/7/2014

| Pump/Tubing Type:<br>Teflon tubing (0.25 ID, 0.375 OD) | Submersible Bladder Pump | Well ID:              | B30/MW5         |              |      |                 |               |              |          |
|--------------------------------------------------------|--------------------------|-----------------------|-----------------|--------------|------|-----------------|---------------|--------------|----------|
| Equipment Decontamination:<br>Alconox/potable water    |                          | Casing Radius:        | 2"              |              |      |                 |               |              |          |
| Purge Water Disposal:<br>55-gallon drum                |                          | Total Depth:          | 12              |              |      |                 |               |              |          |
|                                                        |                          | Depth to Water (DTW): | 7.88            |              |      |                 |               |              |          |
| Start Pump:                                            | 720                      | Pump Intake Depth:    | 10              |              |      |                 |               |              |          |
| Time                                                   | Flow<br>(mL/min)         | Volume<br>(L)         | DTW<br>(ft bgs) | Temp<br>(°F) | pH   | Cond<br>(µS/cm) | Turb<br>(NTU) | DO<br>(mg/L) | Comments |
| 725                                                    | 400                      | 2                     | -               | 79.9         | 8.68 | 3.94            | 29.6          | -            |          |
| 728                                                    | 400                      | 3.2                   | -               | 80.3         | 8.61 | 4.23            | 18.9          | -            |          |
| 731                                                    | 400                      | 4.4                   | -               | 80.4         | 8.63 | 4.32            | 8.1           | -            |          |
| 734                                                    | 400                      | 5.6                   | -               | 80.5         | 8.68 | 4.35            | 5.1           | -            |          |
| 738                                                    | 400                      | 7                     | -               | 80.5         | 8.72 | 4.35            | 3.6           | -            |          |
| 741                                                    | 400                      | 8.2                   | -               | 80.6         | 8.73 | 4.35            | 2.5           | -            |          |
| 746                                                    | 400                      | 9.4                   | -               | 80.7         | 8.75 | 4.41            | 1.3           | -            |          |
| 749                                                    | 400                      | 10.6                  | -               | 80.7         | 8.75 | 4.42            | 1.0           | -            |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
|                                                        |                          |                       |                 |              |      |                 |               |              |          |
| Stop Pump:                                             | 800                      | Sample Time:          | 750             |              |      |                 |               |              |          |
| Laboratory:                                            | Accutest                 | Sample ID:            | 2003.B30.GW     |              |      |                 |               |              |          |

Observations/Comments:





## Low Flow Purging and Sampling Log

Project Name: Kahului Harbor

ETC Personnel: E. Kakone

Project No.: 14-2003

Location: Kahului Harbor

Date: 6/6/2018

| Pump/Tubing Type: Submersible Bladder Pump       |               |            |              |           | Well ID: <b>MW6</b>           |              |            |           |          |
|--------------------------------------------------|---------------|------------|--------------|-----------|-------------------------------|--------------|------------|-----------|----------|
| Teflon tubing (0.25 ID, 0.375 OD)                |               |            |              |           | Casing Radius: 2"             |              |            |           |          |
| Equipment Decontamination: Alconox/potable water |               |            |              |           | Total Depth: 11               |              |            |           |          |
| Purge Water Disposal: 55-gallon drum             |               |            |              |           | Depth to Water (DTW): 6.6     |              |            |           |          |
| Start Pump: 700                                  |               |            |              |           | Pump Intake Depth: 9          |              |            |           |          |
| Time                                             | Flow (mL/min) | Volume (L) | DTW (ft bgs) | Temp (°F) | pH                            | Cond (µS/cm) | Turb (NTU) | DO (mg/L) | Comments |
| 702                                              | 400           | 1.2        | -            | 80.0      | 8.29                          | 8.12         | 0.0        | -         |          |
| 705                                              | 400           | 2.4        | -            | 80.0      | 8.30                          | 8.73         | 0.0        | -         |          |
| 708                                              | 400           | 3.6        | -            | 79.9      | 8.28                          | 8.98         | 0.0        | -         |          |
| 711                                              | 400           | 4.8        | -            | 79.9      | 8.28                          | 9.01         | 800.0      | -         |          |
| 714                                              | 400           | 6          | -            | 79.3      | 8.27                          | 9.03         | 800.0      | -         |          |
| 717                                              | 400           | 7.2        | -            | 79.8      | 8.28                          | 9.10         | 800.0      | -         |          |
| 720                                              | 400           | 8.4        | -            | 80.0      | 8.28                          | 9.09         | 800.0      | -         |          |
| 723                                              | 400           | 9.6        | -            | 80.0      | 8.29                          | 9.10         | 790.0      | -         |          |
| 726                                              | 400           | 10.8       | -            | 80.0      | 8.30                          | 9.11         | 783.0      | -         |          |
| 729                                              | 400           | 12         | -            | 80.0      | 8.30                          | 9.18         | 780.0      | -         |          |
| 732                                              | 400           | 13.2       | -            | 80.0      | 8.29                          | 9.11         | 782.0      | -         |          |
| 735                                              | 400           | 14.4       | -            | 80.0      | 8.29                          | 9.1          | 781.0      | -         |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
| Stop Pump: 810                                   |               |            |              |           | Sample Time: 735              |              |            |           |          |
| Laboratory: AAL                                  |               |            |              |           | Sample ID: <b>2003.MW6.GW</b> |              |            |           |          |

Observations/Comments:





## Low Flow Purging and Sampling Log

Project Name: Kahului Harbor

ETC Personnel: Bryan Starks, Matt Moore

Project No.: 14-2003

Location: Kahului Harbor

Date: 6/6/2018

| Pump/Tubing Type: Submersible Bladder Pump       |               |            |              |           | Well ID: <b>MW8</b>           |              |            |           |          |
|--------------------------------------------------|---------------|------------|--------------|-----------|-------------------------------|--------------|------------|-----------|----------|
| Teflon tubing (0.25 ID, 0.375 OD)                |               |            |              |           | Casing Radius: 2"             |              |            |           |          |
| Equipment Decontamination: Alconox/potable water |               |            |              |           | Total Depth: 11               |              |            |           |          |
| Purge Water Disposal: 55-gallon drum             |               |            |              |           | Depth to Water (DTW): 5.8     |              |            |           |          |
| Start Pump: 816                                  |               |            |              |           | Pump Intake Depth: 8.5        |              |            |           |          |
| Time                                             | Flow (mL/min) | Volume (L) | DTW (ft bgs) | Temp (°F) | pH                            | Cond (µS/cm) | Turb (NTU) | DO (mg/L) | Comments |
| 820                                              | 400           | 1.2        | -            | 83.0      | 7.41                          | 2.77         | 0          | -         |          |
| 823                                              | 400           | 2.4        | -            | 83.7      | 7.32                          | 2.72         | 800        | -         |          |
| 826                                              | 400           | 3.6        | -            | 83.8      | 7.44                          | 2.7          | 800.0      | -         |          |
| 829                                              | 400           | 4.8        | -            | 84.2      | 7.62                          | 2.66         | 608.0      | -         |          |
| 832                                              | 400           | 6          | -            | 84.4      | 7.68                          | 2.63         | 469.0      | -         |          |
| 835                                              | 400           | 7.2        | -            | 84.4      | 7.70                          | 2.62         | 390.0      | -         |          |
| 838                                              | 400           | 8.4        | -            | 84.5      | 7.71                          | 2.62         | 340.0      | -         |          |
| 841                                              | 400           | 9.6        | -            | 84.5      | 7.72                          | 2.61         | 295.0      | -         |          |
| 844                                              | 400           | 10.8       | -            | 84.4      | 7.73                          | 2.61         | 251.0      | -         |          |
| 847                                              | 400           | 12         | -            | 84.4      | 7.73                          | 2.6          | 201.0      | -         |          |
| 850                                              | 400           | 13.2       | -            | 84.3      | 7.73                          | 2.61         | 189.0      | -         |          |
| 853                                              | 400           | 14.4       | -            | 84.4      | 7.73                          | 2.62         | 200.0      | -         |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
|                                                  |               |            |              |           |                               |              |            |           |          |
| Stop Pump: 915                                   |               |            |              |           | Sample Time: 853              |              |            |           |          |
| Laboratory: AAL                                  |               |            |              |           | Sample ID: <b>2003.MW8.GW</b> |              |            |           |          |

Observations/Comments:

DRAFT

**APPENDIX 6**  
**GPS DATA**

**GPS Data - Coordinates**

| <b>Boring</b> | <b>X (US Survey Feet) / E</b> | <b>Y (US Survey Feet) / N</b> |
|---------------|-------------------------------|-------------------------------|
| 1             | 1710685.939                   | 204064.708                    |
| 2/MW1         | 1710657.552                   | 204115.666                    |
| 3             | 1710554.643                   | 204027.044                    |
| 4             | 1710573.734                   | 204102.943                    |
| 5             | 171573.946                    | 204155.579                    |
| 6             | 1710564.494                   | 204252.637                    |
| 7             | 1710429.753                   | 204250.667                    |
| 8             | 1710452.853                   | 204014.997                    |
| 9/MW2         | 1710349.622                   | 204151.89                     |
| 10            | 1710290.853                   | 204115.09                     |
| 11            | 1710127.956                   | 203968.414                    |
| 12            | 1710036.876                   | 204097.698                    |
| 13            | 1710161.708                   | 204164.756                    |
| 14            | 1710230.565                   | 201215.393                    |
| 15            | 1710345.628                   | 204313.766                    |
| 16            | 1710384.965                   | 204333.441                    |
| 17            | 1710341.21                    | 204386.379                    |
| 18            | 1710314.468                   | 204344.622                    |
| 19/MW3        | 1709979.5                     | 204196.557                    |
| 20            | 1710125.684                   | 204395.332                    |
| 21            | 1710236.017                   | 204438.041                    |
| 22            | 1710214.265                   | 204509.828                    |
| 23/MW4        | 1710133.664                   | 204512.744                    |
| 24            | 1710097.731                   | 204444.719                    |
| 25            | 1710001.606                   | 204356.439                    |
| 26            | 1709869.984                   | 204343.759                    |

**GPS Data - Coordinates**

| <b>Boring</b> | <b>X (US Survey Feet) / E</b> | <b>Y (US Survey Feet) / N</b> |
|---------------|-------------------------------|-------------------------------|
| 27            | 1709959.382                   | 204413.754                    |
| 28            | 1709976.998                   | 204494.069                    |
| 29            | 1709806.001                   | 204445.68                     |
| 30/MW5        | 1709757.743                   | 204511.98                     |
| 31            | 1710182.573                   | 204132.582                    |
| 32            | 1710166.924                   | 204113.153                    |
| 33            | 1710219.306                   | 204074.562                    |
| 34            | 1710107.33                    | 204244.532                    |
| 35            | 1710275.017                   | 204363.961                    |
| 36            | 1710307.793                   | 203960.68                     |
| W6            | 1710326.492                   | 204419.832                    |
| W7            | 1709984.017                   | 204526.24                     |
| W8            | 1710655.814                   | 204306.997                    |

U.S. State Plane, Nad 83, Zone 2, US Survey Feet

DRAFT

**APPENDIX 7**  
**LABORATORY RESULTS**





Reissue #1  
06/04/14

## Technical Report for

EnviroServices and Training Center

Kahului Harbor Parcel-Maui, HI

14-2003

Accutest Job Number: C33940

Sampling Date: 05/06/14

### Report to:

EnviroServices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814  
sharla@gotoetc.com

ATTN: Sharla Nakashima

Total number of pages in report: **206**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy  
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: OR (CA300006) CA (08258CA) AZ (AZ0762) DoD ELAP (L-A-B L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.



June 4, 2014

Sharla Nakashima  
Enviroservices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814

**Re: Accutest Job # C33940 Reissue**

Dear Ms. Nakashima,

The final report for Accutest Job # **C33940**, original report dated 5/16/2014, has been edited to reflect requested corrections.

Additional results for 8015 Oil Range Organics {TPH (>C28-C40)} have been added for all samples as per your request. Revised result pages and associated QC have been incorporated into this revised report.

Please contact us at 408-588-0200 if we can be of further assistance in this matter, or if you have any questions regarding this data report.

Sincerely,

Accutest Laboratories



# Table of Contents

Sections:

1  
2  
3  
4  
5  
6  
7  
8  
9

-1-

|                                                                  |            |
|------------------------------------------------------------------|------------|
| <b>Section 1: Sample Summary .....</b>                           | <b>5</b>   |
| <b>Section 2: Summary of Hits .....</b>                          | <b>7</b>   |
| <b>Section 3: Sample Results .....</b>                           | <b>11</b>  |
| <b>3.1:</b> C33940-1: 2003.B1.48-60 .....                        | 12         |
| <b>3.2:</b> C33940-2: 2003.B3.42-54 .....                        | 18         |
| <b>3.3:</b> C33940-3: 2003.B4.42-54 .....                        | 24         |
| <b>3.4:</b> C33940-4: 2003.B5.48-60 .....                        | 30         |
| <b>3.5:</b> C33940-5: 2003.B6.48-60 .....                        | 36         |
| <b>3.6:</b> C33940-6: 2003.B8.48-60 .....                        | 42         |
| <b>3.7:</b> C33940-7: 2003.B10.48-60 .....                       | 48         |
| <b>3.8:</b> C33940-8: 2003.B11.48-60 .....                       | 54         |
| <b>3.9:</b> C33940-9: 2003.B12.48-60 .....                       | 60         |
| <b>3.10:</b> C33940-10: 2003.B13.48-60 .....                     | 66         |
| <b>3.11:</b> C33940-11: 2003.B20.48-60 .....                     | 72         |
| <b>3.12:</b> C33940-12: 2003.B21.48-60 .....                     | 78         |
| <b>3.13:</b> C33940-13: 2003.B22.48-60 .....                     | 84         |
| <b>3.14:</b> C33940-14: 2003.B23.48-60 .....                     | 90         |
| <b>3.15:</b> C33940-15: 2003.B24.48-60 .....                     | 96         |
| <b>3.16:</b> C33940-16: 2003.B25.48-60 .....                     | 102        |
| <b>3.17:</b> C33940-17: 2003.B26.48-60 .....                     | 108        |
| <b>3.18:</b> C33940-18: 2003.B28.24-36 .....                     | 114        |
| <b>3.19:</b> C33940-19: 2003.B31.48-60 .....                     | 120        |
| <b>3.20:</b> C33940-20: 2003.B34.48-60 .....                     | 126        |
| <b>3.21:</b> C33940-21: 2003.B35.60-72 .....                     | 132        |
| <b>3.22:</b> C33940-22: 2003.B36.48-60 .....                     | 138        |
| <b>Section 4: Misc. Forms .....</b>                              | <b>144</b> |
| <b>4.1:</b> Chain of Custody .....                               | 145        |
| <b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>      | <b>149</b> |
| <b>5.1:</b> Method Blank Summary .....                           | 150        |
| <b>5.2:</b> Blank Spike/Blank Spike Duplicate Summary .....      | 153        |
| <b>5.3:</b> Laboratory Control Sample Summary .....              | 156        |
| <b>5.4:</b> Matrix Spike/Matrix Spike Duplicate Summary .....    | 158        |
| <b>Section 6: GC/MS Semi-volatiles - QC Data Summaries .....</b> | <b>161</b> |
| <b>6.1:</b> Method Blank Summary .....                           | 162        |
| <b>6.2:</b> Blank Spike/Blank Spike Duplicate Summary .....      | 164        |
| <b>6.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....    | 166        |
| <b>Section 7: GC Volatiles - QC Data Summaries .....</b>         | <b>168</b> |
| <b>7.1:</b> Method Blank Summary .....                           | 169        |
| <b>7.2:</b> Blank Spike/Blank Spike Duplicate Summary .....      | 171        |
| <b>7.3:</b> Matrix Spike/Matrix Spike Duplicate Summary .....    | 173        |
| <b>Section 8: GC Semi-volatiles - QC Data Summaries .....</b>    | <b>175</b> |
| <b>8.1:</b> Method Blank Summary .....                           | 176        |

# Table of Contents

Sections:

1  
2  
3  
4  
5  
6  
7  
8  
9

-2-

|                                                             |            |
|-------------------------------------------------------------|------------|
| 8.2: Blank Spike/Blank Spike Duplicate Summary .....        | 180        |
| 8.3: Matrix Spike/Matrix Spike Duplicate Summary .....      | 184        |
| <b>Section 9: Metals Analysis - QC Data Summaries .....</b> | <b>188</b> |
| 9.1: Prep QC MP7824: As,Ba,Cd,Cr,Pb,Se,Ag .....             | 189        |
| 9.2: Prep QC MP7833: As,Ba,Cd,Cr,Pb,Se,Ag .....             | 194        |
| 9.3: Prep QC MP7835: Hg .....                               | 199        |
| 9.4: Prep QC MP7836: Hg .....                               | 203        |





## Sample Summary

EnviroServices and Training Center

Job No: C33940

Kahului Harbor Parcel-Maui, HI  
Project No: 14-2003

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|----------|----------|-------------|------|------------------|
| C33940-1      | 05/06/14       | 09:35 BS | 05/09/14 | SO          | Soil | 2003.B1.48-60    |
| C33940-2      | 05/06/14       | 09:50 BS | 05/09/14 | SO          | Soil | 2003.B3.42-54    |
| C33940-3      | 05/06/14       | 09:10 BS | 05/09/14 | SO          | Soil | 2003.B4.42-54    |
| C33940-4      | 05/06/14       | 09:25 BS | 05/09/14 | SO          | Soil | 2003.B5.48-60    |
| C33940-5      | 05/06/14       | 09:00 BS | 05/09/14 | SO          | Soil | 2003.B6.48-60    |
| C33940-6      | 05/06/14       | 09:58 BS | 05/09/14 | SO          | Soil | 2003.B8.48-60    |
| C33940-7      | 05/06/14       | 10:25 BS | 05/09/14 | SO          | Soil | 2003.B10.48-60   |
| C33940-8      | 05/06/14       | 10:40 BS | 05/09/14 | SO          | Soil | 2003.B11.48-60   |
| C33940-9      | 05/06/14       | 10:55 BS | 05/09/14 | SO          | Soil | 2003.B12.48-60   |
| C33940-10     | 05/06/14       | 11:25 BS | 05/09/14 | SO          | Soil | 2003.B13.48-60   |
| C33940-11     | 05/06/14       | 08:35 BS | 05/09/14 | SO          | Soil | 2003.B20.48-60   |
| C33940-12     | 05/06/14       | 08:25 BS | 05/09/14 | SO          | Soil | 2003.B21.48-60   |
| C33940-13     | 05/06/14       | 08:17 BS | 05/09/14 | SO          | Soil | 2003.B22.48-60   |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.



**Sample Summary**

(continued)

EnviroServices and Training Center

Job No: C33940

Kahului Harbor Parcel-Maui, HI  
Project No: 14-2003

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|----------|----------|-------------|------|------------------|
| C33940-14     | 05/06/14       | 17:50 BS | 05/09/14 | SO          | Soil | 2003.B23.48-60   |
| C33940-15     | 05/06/14       | 11:10 BS | 05/09/14 | SO          | Soil | 2003.B24.48-60   |
| C33940-16     | 05/06/14       | 12:40 BS | 05/09/14 | SO          | Soil | 2003.B25.48-60   |
| C33940-17     | 05/06/14       | 12:25 BS | 05/09/14 | SO          | Soil | 2003.B26.48-60   |
| C33940-18     | 05/06/14       | 12:15 BS | 05/09/14 | SO          | Soil | 2003.B28.24-36   |
| C33940-19     | 05/06/14       | 11:20 BS | 05/09/14 | SO          | Soil | 2003.B31.48-60   |
| C33940-20     | 05/06/14       | 11:05 BS | 05/09/14 | SO          | Soil | 2003.B34.48-60   |
| C33940-21     | 05/06/14       | 08:10 BS | 05/09/14 | SO          | Soil | 2003.B35.60-72   |
| C33940-22     | 05/06/14       | 10:15 BS | 05/09/14 | SO          | Soil | 2003.B36.48-60   |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Summary of Hits

Page 1 of 4

Job Number: C33940  
 Account: EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI  
 Collected: 05/06/14

2

| Lab Sample ID<br>Analyte          | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units | Method             |
|-----------------------------------|------------------|-----------------|------|------|-------|--------------------|
| <b>C33940-1 2003.B1.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(a)pyrene                    |                  | 0.73 J          | 3.3  | 0.57 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene              |                  | 0.77 J          | 3.3  | 0.67 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene              |                  | 0.80 J          | 3.3  | 0.77 | ug/kg | SW846 8270C BY SIM |
| Chrysene                          |                  | 0.73 J          | 3.3  | 0.67 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                     |                  | 1.75 J          | 3.3  | 0.82 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                  | 4.19 J          | 6.6  | 1.6  | mg/kg | SW846 8015B M      |
| Arsenic <sup>a</sup>              |                  | 10.3            | 4.0  |      | mg/kg | SW846 6010B        |
| Chromium <sup>a</sup>             |                  | 3.5             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33940-2 2003.B3.42-54</b>     |                  |                 |      |      |       |                    |
| TPH (> C28-C40)                   |                  | 1.86 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Arsenic <sup>a</sup>              |                  | 6.3             | 4.0  |      | mg/kg | SW846 6010B        |
| Chromium <sup>a</sup>             |                  | 3.6             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33940-3 2003.B4.42-54</b>     |                  |                 |      |      |       |                    |
| Arsenic <sup>a</sup>              |                  | 21.4            | 4.0  |      | mg/kg | SW846 6010B        |
| Chromium <sup>a</sup>             |                  | 3.0             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33940-4 2003.B5.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(g,h,i)perylene <sup>b</sup> |                  | 1930 J          | 3300 | 730  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                     |                  | 1190            | 660  | 160  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                  | 7170            | 1300 | 330  | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                  | 3.8             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33940-5 2003.B6.48-60</b>     |                  |                 |      |      |       |                    |
| Chromium <sup>a</sup>             |                  | 3.2             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33940-6 2003.B8.48-60</b>     |                  |                 |      |      |       |                    |
| TPH (C10-C28)                     |                  | 10.5            | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                  | 51.2            | 13   | 3.3  | mg/kg | SW846 8015B M      |
| Arsenic <sup>a</sup>              |                  | 5.5             | 2.0  |      | mg/kg | SW846 6010B        |
| Chromium <sup>a</sup>             |                  | 5.4             | 0.99 |      | mg/kg | SW846 6010B        |
| Lead <sup>a</sup>                 |                  | 4.4             | 2.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-7 2003.B10.48-60</b>    |                  |                 |      |      |       |                    |
| TPH (> C28-C40)                   |                  | 1.70 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                  | 4.2             | 0.99 |      | mg/kg | SW846 6010B        |

## Summary of Hits

Page 2 of 4

Job Number: C33940  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/06/14

2

| Lab Sample ID<br>Analyte          | Client Sample ID      | Result/<br>Qual | RL   | MDL  | Units | Method             |
|-----------------------------------|-----------------------|-----------------|------|------|-------|--------------------|
| <b>C33940-8</b>                   | <b>2003.B11.48-60</b> |                 |      |      |       |                    |
| Chromium <sup>a</sup>             |                       | 4.1             | 1.0  |      | mg/kg | SW846 6010B        |
| Lead <sup>a</sup>                 |                       | 14.3            | 2.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-9</b>                   | <b>2003.B12.48-60</b> |                 |      |      |       |                    |
| TPH (C10-C28)                     |                       | 151             | 120  | 31   | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                       | 1340            | 250  | 62   | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                       | 3.8             | 1.0  |      | mg/kg | SW846 6010B        |
| Lead <sup>a</sup>                 |                       | 17.3            | 2.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-10</b>                  | <b>2003.B13.48-60</b> |                 |      |      |       |                    |
| Chromium <sup>a</sup>             |                       | 2.4             | 1.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-11</b>                  | <b>2003.B20.48-60</b> |                 |      |      |       |                    |
| Benzo(g,h,i)perylene <sup>b</sup> |                       | 74.4 J          | 330  | 73   | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                     |                       | 217             | 170  | 42   | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                       | 1400            | 330  | 83   | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                       | 2.7             | 0.98 |      | mg/kg | SW846 6010B        |
| Lead <sup>a</sup>                 |                       | 2.5             | 2.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-12</b>                  | <b>2003.B21.48-60</b> |                 |      |      |       |                    |
| TPH (C10-C28)                     |                       | 1.20 J          | 3.3  | 0.83 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                       | 4.31 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                       | 4.3             | 1.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-13</b>                  | <b>2003.B22.48-60</b> |                 |      |      |       |                    |
| TPH (C10-C28)                     |                       | 1.04 J          | 3.3  | 0.83 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                   |                       | 3.03 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>             |                       | 3.1             | 1.0  |      | mg/kg | SW846 6010B        |
| Lead <sup>a</sup>                 |                       | 8.4             | 2.0  |      | mg/kg | SW846 6010B        |
| <b>C33940-14</b>                  | <b>2003.B23.48-60</b> |                 |      |      |       |                    |
| Chromium <sup>a</sup>             |                       | 3.6             | 0.99 |      | mg/kg | SW846 6010B        |
| <b>C33940-15</b>                  | <b>2003.B24.48-60</b> |                 |      |      |       |                    |
| Benzo(g,h,i)perylene <sup>b</sup> |                       | 988 J           | 3300 | 730  | ug/kg | SW846 8270C BY SIM |



## Summary of Hits

Page 3 of 4

**Job Number:** C33940  
**Account:** EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI  
**Collected:** 05/06/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units | Method        |
|--------------------------|------------------|-----------------|------|------|-------|---------------|
| TPH (C10-C28)            |                  | 1790 J          | 3300 | 830  | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 9380            | 6700 | 1700 | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup>    |                  | 4.1             | 0.99 |      | mg/kg | SW846 6010B   |
| Lead <sup>a</sup>        |                  | 2.7             | 2.0  |      | mg/kg | SW846 6010B   |

### C33940-16 2003.B25.48-60

|                        |        |      |      |       |                    |
|------------------------|--------|------|------|-------|--------------------|
| Benzo(a)anthracene     | 4.5    | 3.3  | 0.83 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene         | 4.7    | 3.3  | 0.57 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene   | 4.5    | 3.3  | 0.67 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene   | 3.2 J  | 3.3  | 0.73 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene   | 4.6    | 3.3  | 0.77 | ug/kg | SW846 8270C BY SIM |
| Chrysene               | 5.5    | 3.3  | 0.67 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene | 0.97 J | 3.3  | 0.93 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene           | 9.4 J  | 17   | 1.7  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene | 3.4    | 3.3  | 0.83 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene           | 5.2 J  | 17   | 1.7  | ug/kg | SW846 8270C BY SIM |
| Pyrene                 | 10.5 J | 17   | 1.7  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)          | 1.18 J | 3.3  | 0.83 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)        | 3.61 J | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>a</sup>  | 3.3    | 0.99 |      | mg/kg | SW846 6010B        |

### C33940-17 2003.B26.48-60

|                       |         |      |      |       |               |
|-----------------------|---------|------|------|-------|---------------|
| TPH (C10-C28)         | 0.842 J | 3.3  | 0.83 | mg/kg | SW846 8015B M |
| TPH (> C28-C40)       | 2.30 J  | 6.6  | 1.7  | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup> | 3.5     | 0.99 |      | mg/kg | SW846 6010B   |

### C33940-18 2003.B28.24-36

|                                     |       |     |      |       |                    |
|-------------------------------------|-------|-----|------|-------|--------------------|
| Acenaphthylene <sup>c</sup>         | 3.8 J | 33  | 3.3  | ug/kg | SW846 8270C BY SIM |
| Anthracene <sup>c</sup>             | 8.4 J | 33  | 3.3  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)anthracene <sup>c</sup>     | 66.6  | 6.6 | 1.7  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>c</sup>         | 85.9  | 6.6 | 1.1  | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>c</sup>   | 85.6  | 6.6 | 1.3  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>c</sup>   | 49.7  | 6.6 | 1.5  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>c</sup>   | 75.8  | 6.6 | 1.5  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>c</sup>               | 99.3  | 6.6 | 1.3  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>c</sup> | 12.5  | 6.6 | 1.9  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>c</sup>           | 151   | 33  | 3.3  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>c</sup> | 51.6  | 6.6 | 1.7  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>c</sup>           | 96.0  | 33  | 3.3  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>c</sup>                 | 177   | 33  | 3.3  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 8.32  | 3.3 | 0.83 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 42.6  | 6.6 | 1.7  | mg/kg | SW846 8015B M      |

## Summary of Hits

Page 4 of 4

Job Number: C33940  
 Account: EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI  
 Collected: 05/06/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual       | RL    | MDL  | Units | Method        |
|--------------------------|------------------|-----------------------|-------|------|-------|---------------|
| Barium <sup>a</sup>      |                  | 136                   | 20    |      | mg/kg | SW846 6010B   |
| Chromium <sup>a</sup>    |                  | 5.2                   | 0.99  |      | mg/kg | SW846 6010B   |
| Lead <sup>a</sup>        |                  | 20.1                  | 2.0   |      | mg/kg | SW846 6010B   |
| Mercury                  |                  | 0.079                 | 0.041 |      | mg/kg | SW846 7471A   |
| <b>C33940-19</b>         |                  | <b>2003.B31.48-60</b> |       |      |       |               |
| TPH (C10-C28)            |                  | 1.19 J                | 3.3   | 0.83 | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 4.79 J                | 6.6   | 1.7  | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup>    |                  | 2.2                   | 1.0   |      | mg/kg | SW846 6010B   |
| <b>C33940-20</b>         |                  | <b>2003.B34.48-60</b> |       |      |       |               |
| TPH (C10-C28)            |                  | 1.04 J                | 3.3   | 0.83 | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 2.89 J                | 6.6   | 1.7  | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup>    |                  | 2.9                   | 0.99  |      | mg/kg | SW846 6010B   |
| <b>C33940-21</b>         |                  | <b>2003.B35.60-72</b> |       |      |       |               |
| TPH (C10-C28)            |                  | 1.02 J                | 3.3   | 0.83 | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 2.40 J                | 6.6   | 1.7  | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup>    |                  | 3.9                   | 1.0   |      | mg/kg | SW846 6010B   |
| <b>C33940-22</b>         |                  | <b>2003.B36.48-60</b> |       |      |       |               |
| TPH (> C28-C40)          |                  | 2.11 J                | 6.6   | 1.7  | mg/kg | SW846 8015B M |
| Chromium <sup>a</sup>    |                  | 3.2                   | 0.99  |      | mg/kg | SW846 6010B   |

- (a) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.  
 (b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).  
 (c) Dilution required due to matrix interference (dark and viscous extract).





Sample Results

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Report of Analysis

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## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B1.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-1                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32906.D | 1  | 05/10/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.34 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.8 | 0.58 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.8 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 114%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 95%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 100%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B1.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-1                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36435.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 0.73   | 3.3 | 0.57 | ug/kg | J |
| 205-99-2 | Benzo(b)fluoranthene   | 0.77   | 3.3 | 0.67 | ug/kg | J |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 0.80   | 3.3 | 0.77 | ug/kg | J |
| 218-01-9 | Chrysene               | 0.73   | 3.3 | 0.67 | ug/kg | J |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 98%    |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.1  
3

Client Sample ID: 2003.B1.48-60

Lab Sample ID: C33940-1

Matrix: SO - Soil

Method: SW846 8015B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44005.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

Initial Weight

Run #1 5.20 g

Run #2

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.096  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 70%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B1.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-1                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021848.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 96%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.1

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B1,48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-1                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312981.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.75   | 3.3 | 0.82 | mg/kg | J |
|         | TPH (> C28-C40) | 4.19   | 6.6 | 1.6  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 119%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B1.48-60

Lab Sample ID: C33940-1

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 10.3    | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.5     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B3.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-2                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46074.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.63 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.4 | 0.54 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.4 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 121%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 111%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 102%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B3.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-2                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36436.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 87%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 88%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 99%    |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B3.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-2                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44006.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.12 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.098 | 0.049 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 105%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B3.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-2                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021849.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B3.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-2                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312982.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 1.86   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 113%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B3.42-54

Lab Sample ID: C33940-2

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 6.3     | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.6     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.039 | 0.039 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B4.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-3                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32894.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.37 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.7 | 0.57 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.7 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B4.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-3                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #2 | X36437.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.1 g         | 1.0 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 97%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 98%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 113%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

Client Sample ID: 2003.B4.42-54

Lab Sample ID: C33940-3

Matrix: SO - Soil

Method: SW846 8015B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44007.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

## Initial Weight

Run #1 5.06 g

Run #2

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.099  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 102%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B4.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-3                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021850.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 94%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 101%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B4.42-54                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-3                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312983.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.82 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.6  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 114%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B4.42-54

Lab Sample ID: C33940-3

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 21.4    | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.0     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B5.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-4                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | M46076.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 4.37 g         | 5.0 ml       | 100 ul           |
| Run #2 |                |              |                  |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL | Units | Q |
|-----------|-------------------------|--------|-----|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 290 | 29  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 290 | 29  | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 290 | 29  | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 570 | 57  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 290 | 57  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 107%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105%   |        | 70-130% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B5.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-4                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36499.D | 100 | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL  | Units | Q |
|----------|------------------------|--------|-------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17000 | 1700 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17000 | 1700 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17000 | 1700 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3300  | 830  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3300  | 570  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3300  | 660  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 1930   | 3300  | 730  | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3300  | 760  | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3300  | 660  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3300  | 930  | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17000 | 1700 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17000 | 1700 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3300  | 830  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17000 | 3300 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17000 | 3300 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17000 | 3300 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17000 | 1700 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17000 | 1700 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 75%               |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 92%               |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 167% <sup>c</sup> |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

(c) Outside control limits due to dilution/matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B5.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-4                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44008.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.06 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.099  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 61%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B5.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-4                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021845.D | 100 | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 56  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 56  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 660 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 62%               |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 57%               |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 175% <sup>c</sup> |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 102%              |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B5.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-4                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313060.D | 40 | 05/13/14 | AG | 05/09/14  | OP10009    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL   | MDL | Units | Q |
|---------|-----------------|--------|------|-----|-------|---|
|         | TPH (C10-C28)   | 1190   | 660  | 160 | mg/kg |   |
|         | TPH (> C28-C40) | 7170   | 1300 | 330 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 66%    |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 2003.B5.48-60

Lab Sample ID: C33940-4

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.8     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.5  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B6.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-5                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32895.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.48 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.6 | 0.56 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.6 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B6.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-5                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36438.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 93%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 95%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 116%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.5  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B6.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-5                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44010.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.23 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.096  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 106%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B6.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-5                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021851.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.79 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 94%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.5

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B6.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-5                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312985.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.82 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.6  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 110%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 2003.B6.48-60

Lab Sample ID: C33940-5

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.2     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B8.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-6                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32896.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 4.54 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.5 | 0.55 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.5 | 0.55 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.5 | 0.55 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.5 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 95%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 96%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B8.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-6                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36504.D | 2  | 05/16/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 170 | 17  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 170 | 17  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 170 | 17  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 33  | 8.3 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 33  | 5.6 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 33  | 6.6 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 33  | 7.3 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 33  | 7.6 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 33  | 6.6 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 33  | 9.3 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 170 | 17  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 170 | 17  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 33  | 8.3 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 170 | 33  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 170 | 33  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 170 | 33  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 170 | 17  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 170 | 17  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 89%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 110%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.6

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B8.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-6                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44011.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.00 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.10   | 0.050   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 99%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B8.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-6                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021847.D | 5  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2              |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 16  | 2.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 16  | 1.8 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 16  | 4.0 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 16  | 2.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 16  | 2.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 160 | 16  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 16  | 3.0 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 16  | 3.5 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 16  | 3.0 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 16  | 2.5 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 16  | 3.0 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 16  | 3.0 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 16  | 2.8 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 16  | 3.0 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 16  | 2.8 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 16  | 2.3 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 16  | 2.5 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 16  | 2.6 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 160 | 33  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 81%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 97%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 101%   |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B8.48-60                  | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-6                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313005.D | 2  | 05/12/14 | AG | 05/09/14  | OP10009    | GHH1257          |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 10.5   | 6.6 | 1.7 | mg/kg |   |
|         | TPH (> C28-C40) | 51.2   | 13  | 3.3 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 110%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B8.48-60

Lab Sample ID: C33940-6

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 5.5     | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 5.4     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 4.4     | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B10.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-7                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32897.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.46 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.6 | 0.56 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.6 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B10.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-7                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36475.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 88%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 91%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 100%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.7

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B10.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-7                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44012.D | I  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.00 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 104%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B10.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-7                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021852.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 33  | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 33  | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 101%   |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.7

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B10.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-7                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312987.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 1,70   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 113%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B10.48-60

Lab Sample ID: C33940-7

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 4.2     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.039 | 0.039 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Client Sample ID: 2003.B11.48-60

Lab Sample ID: C33940-8

Date Sampled: 05/06/14

Matrix: SO - Soil

Date Received: 05/09/14

Method: SW846 8260B

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32898.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

## Initial Weight

Run #1 4.78 g

Run #2

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.2 | 0.52 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.2 | 0.52 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.2 | 0.52 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.2 | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 111%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 92%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 97%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B11.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-8                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36440.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 86%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 88%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 108%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.8

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B11.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-8                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44013.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.02 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 107%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B11.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-8                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021853.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.79 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.59 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.69 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.59 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.49 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.59 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.59 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.59 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.49 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 92%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.8

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B11.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-8                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312988.D | 1  | 05/09/14 | AG | 05/09/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 118%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B11.48-60

Lab Sample ID: C33940-8

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 4.1     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 14.3    | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.037 | 0.037 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.9

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B12.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-9                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46098.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.54 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.5 | 0.55 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.5 | 0.55 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.5 | 0.55 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.5 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 108%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 116%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 92%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B12.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-9                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36503.D | 20 | 05/16/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL | Units | Q |
|----------|------------------------|--------|------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 3300 | 330 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 3300 | 330 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 3300 | 330 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 670  | 170 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 670  | 110 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 670  | 130 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 670  | 150 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 670  | 150 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 670  | 130 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 670  | 190 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 3300 | 330 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 3300 | 330 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 670  | 170 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 3300 | 670 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 3300 | 670 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 3300 | 670 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 3300 | 330 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 3300 | 330 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 83%    |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.9

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B12.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-9                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44014.D | 1  | 05/13/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.00 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.10   | 0.050   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 93%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B12.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-9                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021846.D | 100 | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2              |            |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 39  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 36  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 79  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 39  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 39  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 59  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 69  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 59  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 49  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 59  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 59  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 56  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 59  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 56  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 46  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 49  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 52  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 660 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 68%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 93%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 107%   |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B12.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-9                       | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313061.D | 25 | 05/13/14 | AG | 05/09/14  | OP10009    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.5 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 151    | 120 | 31  | mg/kg |   |
|         | TPH (> C28-C40) | 1340   | 250 | 62  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 69%    |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 2003.B12.48-60

Lab Sample ID: C33940-9

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.8     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 17.3    | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Client Sample ID: 2003.B13.48-60

Lab Sample ID: C33940-10

Matrix: SO - Soil

Method: SW846 8260B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32899.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

## Initial Weight

Run #1 4.16 g

Run #2

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.0 | 0.60 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.0 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 100%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B13.48-60  
**Lab Sample ID:** C33940-10  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a<sup>a</sup>

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36441.D | 1  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 88%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 89%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 108%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.10

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B13.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-10                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44045.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.29 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.095 | 0.047 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 108%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B13.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-10                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021854.D | 1  | 05/10/14 | RV | 05/09/14  | OP10010    | GMM647           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.39 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.79 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.39 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.39 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 33  | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.59 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.69 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.59 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.49 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.59 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.59 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.59 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.49 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.52 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 33  | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 92%    |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.10  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B13.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-10                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51804.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 120%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 2003.B13.48-60

Lab Sample ID: C33940-10

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.4     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

3.11

3

Client Sample ID: 2003.B20.48-60

Lab Sample ID: C33940-11

Matrix: SO - Soil

Method: SW846 8260B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46066.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

## Initial Weight

Run #1 4.62 g

Run #2

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.4 | 0.54 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.4 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 114%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B20.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-11                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36502.D | 10 | 05/16/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL | Units | Q |
|----------|------------------------|--------|------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1700 | 170 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 1700 | 170 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 1700 | 170 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 330  | 83  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 330  | 56  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 330  | 66  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 74.4   | 330  | 73  | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 330  | 76  | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 330  | 66  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 330  | 93  | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 1700 | 170 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 1700 | 170 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 330  | 83  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 1700 | 330 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 1700 | 170 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 1700 | 170 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 95%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 126%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.11  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B20.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-11                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1              | JK44062.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 <sup>b</sup> | JK44047.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.07 g         |
| Run #2 | 5.45 g         |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.099 | 0.049 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 61%    | 60%    | 60-115% |

(a) All results reported on a wet weight basis.

(b) Confirmation run.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B20.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-11                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021872.D | 100 | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2              |            |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 69%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 91%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 91%    |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.11  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B20.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-11                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51805.D | 10 | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 217    | 170 | 42  | mg/kg |   |
|         | TPH (> C28-C40) | 1400   | 330 | 83  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 109%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B20.48-60

Lab Sample ID: C33940-11

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.98  | 0.98  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.7     | 0.98  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 2.5     | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.98  | 0.98  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

3.12  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B21.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-12                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32900.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.33 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.8 | 0.58 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.8 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 111%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 97%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B21.48-60  
**Lab Sample ID:** C33940-12  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a<sup>a</sup>

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36476.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 81%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 92%    |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.12  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B21.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-12                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44048.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.15 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.097  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 106%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B21.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-12                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021875.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 101%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 111%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B21.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-12                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51806.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.20   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 4.31   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 118%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                                                |                                         |
|------------------------------------------------|-----------------------------------------|
| <b>Client Sample ID:</b> 2003.B21.48-60        | <b>Date Sampled:</b> 05/06/14           |
| <b>Lab Sample ID:</b> C33940-12                | <b>Date Received:</b> 05/09/14          |
| <b>Matrix:</b> SO - Soil                       | <b>Percent Solids:</b> n/a <sup>a</sup> |
| <b>Project:</b> Kahului Harbor Parcel-Maui, HI |                                         |

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 4.3     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B22.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-13                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32901.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.15 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.0 | 0.60 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.0 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B22.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-13                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36477.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 91%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 93%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 113%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.13

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B22.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-13                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44049.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.00 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.10   | 0.050   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 106%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B22.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-13                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021876.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 98%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 99%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B22.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-13                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51807.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.04   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 3.03   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 118%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B22.48-60

Lab Sample ID: C33940-13

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.1     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 8.4     | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B23.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-14                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32902.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.47 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.6 | 0.56 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.6 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 112%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 98%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B23.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-14                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36478.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 82%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 89%    |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.14  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B23.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-14                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44050.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.18 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.097  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 110%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B23.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-14                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021877.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 99%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B23.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-14                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51808.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 118%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B23.48-60

Lab Sample ID: C33940-14

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.6     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.042 | 0.042 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.15

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B24.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-15                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | M46077.D | 1  | 05/10/14 | XB | n/a       | n/a        | VM1391           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 4.55 g         | 5.0 ml       | 100 ul           |
| Run #2 |                |              |                  |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL | Units | Q |
|-----------|-------------------------|--------|-----|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 270 | 27  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 270 | 27  | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 270 | 27  | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 550 | 55  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 270 | 55  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 108%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 106%   |        | 70-130% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B24.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-15                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36500.D | 50 | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 20.0 ml      |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL  | Units | Q |
|----------|------------------------|--------|-------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17000 | 1700 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17000 | 1700 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17000 | 1700 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3300  | 830  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3300  | 560  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3300  | 660  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 988    | 3300  | 730  | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3300  | 760  | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3300  | 660  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3300  | 930  | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17000 | 1700 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17000 | 1700 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3300  | 830  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17000 | 3300 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17000 | 3300 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17000 | 3300 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17000 | 1700 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17000 | 1700 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 67%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 117%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B24.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-15                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1              | JK44063.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 <sup>b</sup> | JK44051.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.03 g         |
| Run #2 | 5.15 g         |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.099 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1           | Run# 2           | Limits  |
|---------|----------------------|------------------|------------------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 29% <sup>c</sup> | 26% <sup>c</sup> | 60-115% |

(a) All results reported on a wet weight basis.

(b) Confirmation run.

(c) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B24.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-15                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021871.D | 100 | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 48% <sup>c</sup>  |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 42% <sup>c</sup>  |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 137%              |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 217% <sup>c</sup> |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.15  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B24.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-15                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|-----|----------|----|-----------|------------|------------------|
| Run #1 | GG51809.D | 100 | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL   | MDL  | Units | Q |
|---------|-----------------|--------|------|------|-------|---|
|         | TPH (C10-C28)   | 1790   | 3300 | 830  | mg/kg | J |
|         | TPH (> C28-C40) | 9380   | 6700 | 1700 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 55%    |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B24.48-60

Lab Sample ID: C33940-15

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 4.1     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 2.7     | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.037 | 0.037 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B25.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-16                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46067.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.88 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.1 | 0.51 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.1 | 0.51 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.1 | 0.51 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.1 | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 109%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B25.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-16                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36445.D | I  | 05/14/14 | AA | 05/12/14  | OP10018    | EX1590           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 4.5    | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 4.7    | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 4.5    | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 3.2    | 3.3 | 0.73 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | 4.6    | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | 5.5    | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 0.97   | 3.3 | 0.93 | ug/kg | J |
| 206-44-0 | Fluoranthene           | 9.4    | 17  | 1.7  | ug/kg | J |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3.4    | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 5.2    | 17  | 1.7  | ug/kg | J |
| 129-00-0 | Pyrene                 | 10.5   | 17  | 1.7  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 90%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 92%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 111%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.16  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B25.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-16                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44052.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.11 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.098  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 107%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B25.48-60  
**Lab Sample ID:** C33940-16  
**Matrix:** SO - Soil  
**Method:** SW846 8081A SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a<sup>a</sup>

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021878.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 102%   |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 101%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.16  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B25.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-16                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51810.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.18   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 3.61   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 114%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B25.48-60

Lab Sample ID: C33940-16

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.3     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.039 | 0.039 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B26.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-17                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32903.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 3.94 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.3 | 0.63 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.3 | 0.63 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.3 | 0.63 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 13  | 1.3  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.3 | 1.3  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 95%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B26.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-17                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36479.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 87%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 91%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 107%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.17

3

Client Sample ID: 2003.B26.48-60

Lab Sample ID: C33940-17

Matrix: SO - Soil

Method: SW846 8015B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44053.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

## Initial Weight

Run #1 5.33 g

Run #2

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.094  | 0.047   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 111%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B26.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-17                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021873.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 93%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.17  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B26.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-17                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51812.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 0.842  | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 2.30   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 122%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B26.48-60

Lab Sample ID: C33940-17

Matrix: SO - Soil

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.5     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B28.24-36                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-18                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46071.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.60 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 4.5 | 0.45 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 4.5 | 0.45 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 4.5 | 0.45 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 8.9 | 0.89 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 4.5 | 0.89 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 112%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 112%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B28.24-36                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-18                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36501.D | 2  | 05/16/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 33  | 3.3 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | 3.8    | 33  | 3.3 | ug/kg | J |
| 120-12-7 | Anthracene             | 8.4    | 33  | 3.3 | ug/kg | J |
| 56-55-3  | Benzo(a)anthracene     | 66.6   | 6.6 | 1.7 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 85.9   | 6.6 | 1.1 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 85.6   | 6.6 | 1.3 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 49.7   | 6.6 | 1.5 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 75.8   | 6.6 | 1.5 | ug/kg |   |
| 218-01-9 | Chrysene               | 99.3   | 6.6 | 1.3 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 12.5   | 6.6 | 1.9 | ug/kg |   |
| 206-44-0 | Fluoranthene           | 151    | 33  | 3.3 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 33  | 3.3 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 51.6   | 6.6 | 1.7 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 33  | 6.6 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 33  | 6.6 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 33  | 6.6 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 96.0   | 33  | 3.3 | ug/kg |   |
| 129-00-0 | Pyrene                 | 177    | 33  | 3.3 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 85%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 107%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference (dark and viscous extract).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.18

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B28.24-36                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-18                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44054.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.10 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.098  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 88%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.18  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B28.24-36                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-18                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021874.D | 10 | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2              |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 33  | 4.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 33  | 3.6 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 33  | 8.0 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 33  | 4.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 33  | 4.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 330 | 33  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 33  | 6.0 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 33  | 7.0 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 33  | 6.0 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 33  | 5.0 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 33  | 6.0 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 33  | 6.0 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 33  | 5.6 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 33  | 6.0 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 33  | 5.6 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 33  | 4.6 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 33  | 5.0 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 33  | 5.3 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 330 | 66  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 74%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 74%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 88%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.18  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B28.24-36                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-18                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51813.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 8.32   | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 42.6   | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 115%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.18  
3

Client Sample ID: 2003.B28.24-36

Lab Sample ID: C33940-18

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0  | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | 136    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99 | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 5.2    | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 20.1   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | 0.079  | 0.041 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99 | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B31.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-19                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32904.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.39 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.7 | 0.57 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.7 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B31.48-60  
**Lab Sample ID:** C33940-19  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a <sup>a</sup>

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36480.D | 1  | 05/15/14 | AA | 05/12/14  | OP10018    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 89%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 91%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 105%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.19  
3

**Client Sample ID:** 2003.B31.48-60  
**Lab Sample ID:** C33940-19  
**Matrix:** SO - Soil  
**Method:** SW846 8015B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a <sup>a</sup>

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44055.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.09 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.098 | 0.049 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 112%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B31.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-19                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021879.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 98%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 100%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 104%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B31.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-19                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51814.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.19   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 4.79   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 118%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B31.48-60

Lab Sample ID: C33940-19

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.2     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B34.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-20                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32905.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.44 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.6 | 0.56 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.6 | 0.56 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.6 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 98%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B34.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-20                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36353.D | 1  | 05/13/14 | AA | 05/12/14  | OP10018    | EX1588           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.92 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 87%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 94%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 102%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.20

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B34.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-20                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44056.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.01 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 107%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B34.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-20                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021880.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 113%   |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 111%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 109%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 108%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.20

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B34.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-20                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51815.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.04   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 2.89   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 121%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B34.48-60

Lab Sample ID: C33940-20

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.9     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

**Client Sample ID:** 2003.B35.60-72  
**Lab Sample ID:** C33940-21  
**Matrix:** SO - Soil  
**Method:** SW846 8260B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a <sup>a</sup>

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46073.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.34 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.8 | 0.58 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.8 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 117%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 108%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 101%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B35.60-72  
**Lab Sample ID:** C33940-21  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a <sup>a</sup>

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36481.D | 1  | 05/15/14 | AA | 05/12/14  | OP10024    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 81%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 85%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 101%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.21  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B35.60-72                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-21                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44058.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.10 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.098 | 0.049 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 102%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B35.60-72  
**Lab Sample ID:** C33940-21  
**Matrix:** SO - Soil  
**Method:** SW846 8081A SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/06/14  
**Date Received:** 05/09/14  
**Percent Solids:** n/a <sup>a</sup>

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021887.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 101%   |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 107%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 104%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.21  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B35.60-72                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-21                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51816.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 1.02   | 3.3 | 0.83 | mg/kg | J |
|         | TPH (> C28-C40) | 2.40   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 121%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B35.60-72

Lab Sample ID: C33940-21

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.9     | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Client Sample ID: 2003.B36.48-60

Lab Sample ID: C33940-22

Matrix: SO - Soil

Method: SW846 8260B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a <sup>a</sup>

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46072.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2 |          |    |          |    |           |            |                  |

## Initial Weight

Run #1 4.60 g

Run #2

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.4 | 0.54 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.4 | 0.54 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.4 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 110%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 102%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B36.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-22                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36449.D | 1  | 05/15/14 | AA | 05/12/14  | OP10024    | EX1590           |
| Run #2 <sup>c</sup> | X36482.D | 1  | 05/15/14 | AA | 05/12/14  | OP10024    | EX1591           |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 | 30.1 g         | 1.0 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%    | 83%    | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 86%    | 86%    | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 129%   | 111%   | 51-146% |

(a) All results reported on a wet weight basis.

(b) ISTD#6 outside control limits due to matrix interference. Confirmed by re-analysis.

(c) Confirmation run for internal standard areas.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.22

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B36.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-22                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44059.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.23 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.096 | 0.048 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 112%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B36.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-22                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021888.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 96%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.22

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B36.48-60                 | <b>Date Sampled:</b>   | 05/06/14         |
| <b>Lab Sample ID:</b>    | C33940-22                      | <b>Date Received:</b>  | 05/09/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51817.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| Run #2 |           |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 2.11   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 122%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B36.48-60

Lab Sample ID: C33940-22

Matrix: SO - Soil

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.2     | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.041 | 0.041 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/14/14 | 05/15/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3954

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7833

(4) Prep QC Batch: MP7836

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



### Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

[illegible]

## 4.1

### C33940: Chain of Custody

Page 1 of 4



2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

Page 2 of 3

| Client / Reporting Information                                   |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | Project Information                    |                                |                                           |                  |              |                  |        |     | Requested Analysis |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              | Matrix Codes                                                                                                                                                                                                                         |   |   |  |  |
|------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------|--------------------------------|-------------------------------------------|------------------|--------------|------------------|--------|-----|--------------------|-----|--|--------------|--------------|--------------------------------------------|-------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|--|--|
| Company Name<br><b>EnviroServices &amp; Training Center, LLC</b> |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | Project Name:<br><b>Kahului Harbor</b> |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              | <b>WW- Wastewater</b><br><b>GW- Ground Water</b><br><b>SW- Surface Water</b><br><b>SO- Soil</b><br><b>OS- Oil</b><br><b>WP- Wipes</b><br><b>UG- Non-aqueous Liquid</b><br><b>AIR</b><br><b>DW- Drinking Water (Perchlorate Only)</b> |   |   |  |  |
| Address<br><b>505 Ward Avenue, Suite 202</b>                     |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | Street                                 |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| City State Zip<br><b>Honolulu Hawaii 96789</b>                   |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | City State<br><b>Kahului Hawaii</b>    |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Project Contact<br><b>Ms. Sharla Nakashima</b>                   |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | Project #<br><b>14-2003</b>            |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Phone #<br><b>808-639-7222, Ext. 228</b>                         |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | EMAIL:<br><b>sharla@gotosc.com</b>     |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Sampler's Name<br><b>B. Starks / M. Moore</b>                    |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  | Client Purchase Order #                |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Accutest Sample ID                                               | Sample ID / Field Point / Point of Collection | Date                                                                                                     | Time           | Sampled by                                                                                                                                                                                                                                                                                                                                                                                                                     | Method           | # of bottles                           | Number of preserved Bottles    |                                           |                  |              |                  |        |     |                    |     |  | TPH-G (8015) | TPH-P (8015) | DOIS-16 PAHS-MeBydymphthalenes (827AC SIM) | RCRA 8 Metals (60107Z1) | Organochlorine Pesticides (8081A) | MBTEX (5035/8038)                                                                                                 | LAB USE ONLY |                                                                                                                                                                                                                                      |   |   |  |  |
|                                                                  |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                        | P                              | M                                         | JMP              | PCDA         | JSK              | NitroA | MSM | Succin             | UoB |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| 11                                                               | 2003.B20.48-60                                | 5/10/2014                                                                                                | 835            | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 12                                                               | 2003.B21.48-60                                | 5/8/2014                                                                                                 | 825            | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 13                                                               | 2003.B22.48-60                                | 5/8/2014                                                                                                 | 817            | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 14                                                               | 2003.B23.48-60                                | 5/5/2014                                                                                                 | 1760           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 15                                                               | 2003.B24.48-60                                | 5/8/2014                                                                                                 | 1110           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 16                                                               | 2003.B25.48-60                                | 5/8/2014                                                                                                 | 1240           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 17                                                               | 2003.B26.48-60                                | 5/8/2014                                                                                                 | 1225           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 18                                                               | 2003.B28.24-36                                | 5/8/2014                                                                                                 | 1215           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 19                                                               | 2003.B31.48-60                                | 5/8/2014                                                                                                 | 1120           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| 20                                                               | 2003.B34.48-60                                | 5/8/2014                                                                                                 | 1105           | BS / MM                                                                                                                                                                                                                                                                                                                                                                                                                        | SO               | 5                                      |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         | X                                 | X                                                                                                                 | X            | X                                                                                                                                                                                                                                    | X | X |  |  |
| Turnaround Time (Business days)                                  |                                               | Data Deliverable Information                                                                             |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                        |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            | Comments / Remarks      |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| STANDARD 7-DAY TAT                                               |                                               | Approved By / Date:                                                                                      |                | <input type="checkbox"/> Commercial "A" - Results only<br><input checked="" type="checkbox"/> Commercial "B" - Results with QC summaries<br><input type="checkbox"/> Commercial "B+" - Results, GC, and chromatograms<br><input type="checkbox"/> FULLT - Level 4 data package<br><input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format<br>Provide EDF Global ID _____<br>Provide EDF Logcode: _____ |                  |                                        |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   | All samples were collected on May 5 and 6, 2014, please make sure all samples are extracted and analyzed in hold. |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Emergency TIA data available VIA Lablink                         |                                               | Sample Custody must be documented below each time samples change possession, including courier delivery. |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                        |                                |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| Relinquished by Sample:                                          |                                               | Date Time:                                                                                               | Relinquish By: | Date Time:                                                                                                                                                                                                                                                                                                                                                                                                                     | Relinquished By: | Date Time:                             | Relinquished By:               | Date Time:                                | Relinquished By: | Date Time:   | Relinquished By: |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| 1 Bryan Starks [Signature]                                       |                                               | 5/8/14 945                                                                                               | [Signature]    |                                                                                                                                                                                                                                                                                                                                                                                                                                | 2 Feder          | 5/14/14 1023                           | [Signature]                    |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| 3 Relinquished by:                                               |                                               | Date Time:                                                                                               | Relinquish By: | Date Time:                                                                                                                                                                                                                                                                                                                                                                                                                     | Relinquished By: | Date Time:                             | Relinquished By:               |                                           |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
| 5 Relinquished by:                                               |                                               | Date Time:                                                                                               | Relinquish By: | Date Time:                                                                                                                                                                                                                                                                                                                                                                                                                     | Relinquished By: | Custody Seal #                         | Appropriate Bottle / Pres. Y/N | Headspace Y/N                             | Oils Y/N         | Cooler Temp. |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |
|                                                                  |                                               |                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                        | Labels match Oct Y / N         | Separate Receiving Check List used: Y / N |                  |              |                  |        |     |                    |     |  |              |              |                                            |                         |                                   |                                                                                                                   |              |                                                                                                                                                                                                                                      |   |   |  |  |

## 4.1

**C33940: Chain of Custody**  
**Page 2 of 4**





2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

Page 3 of 3

|                                 |                             |
|---------------------------------|-----------------------------|
| FED-EX Tracking #               | BoE's Order Control #       |
| Acculast Quote # SPH12_2013_170 | Acculast NC Job #: C C33940 |

[illegible]

## 4.4.1

### C33940: Chain of Custody

Page 3 of 4





## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C33940

Client: ENVIROSCIENCES & TRAINING CENTER

Project: KAHULUI HARBOR

Date / Time Received: 5/9/2014

Delivery Method: FedEx

Airbill #'s: 803625272988

Cooler Temps (Initial/Adjusted): #1: (3.9/3.9); #2: (4.4/4.4);

### Cooler Security

Y or N

1. Custody Seals Present:

☐ Y ☒ N

2. Custody Seals Intact:

☐ Y ☐ N

3. COC Present:

☒ Y ☐ N

4. Smpl Dates/Time OK

☒ Y ☐ N

### Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ Y ☐ N

2. Cooler temp verification:

IR2:

3. Cooler media:

Ice (Bag)

4. No. Coolers:

2

### Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ Y ☐ N

2. Trip Blank listed on COC:

☐ Y ☐ N

3. Samples preserved properly:

☒ Y ☐ N

4. VOCs headspace free:

☐ Y ☐ N

### Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ Y ☐ N

2. Container labeling complete:

☒ Y ☐ N

3. Sample container label / COC agree:

☒ Y ☐ N

### Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ Y ☐ N

2. All containers accounted for:

☒ Y ☐ N

3. Condition of sample:

Intact

### Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ Y ☐ N

2. Bottles received for unspecified tests

☐ Y ☒ N

3. Sufficient volume recvd for analysis:

☒ Y ☐ N

4. Compositing instructions clear:

☐ Y ☐ N

☒ N/A

5. Filtering instructions clear:

☐ Y ☐ N

☒ N/A

Comments

Accutest Laboratories  
V: 408.588.0200

2105 Lundy Avenue  
F: 408.588.0201

San Jose, CA 95131  
www.accutest.com

C33940: Chain of Custody  
Page 4 of 4

## GC/MS Volatiles

5

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-MB | M46059.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-2, C33940-4, C33940-11, C33940-15, C33940-16, C33940-18, C33940-21, C33940-22

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 107% 70-130% |
| 2037-26-5 | Toluene-D8           | 110% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 106% 70-130% |

5.1.1  
5

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VL1012-MB | L32892.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-1, C33940-3, C33940-5, C33940-6, C33940-7, C33940-8, C33940-10, C33940-12, C33940-13, C33940-14, C33940-17, C33940-19, C33940-20

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 109% 70-130% |
| 2037-26-5 | Toluene-D8           | 93% 70-130%  |
| 460-00-4  | 4-Bromofluorobenzene | 98% 70-130%  |

5.1.2  
5



## Method Blank Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VM1392-MB | M46087.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-9

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 106% 70-130% |
| 2037-26-5 | Toluene-D8           | 107% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105% 70-130% |

5.1.3  
5

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-BS  | M46055.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| VM1391-BSD | M46056.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-2, C33940-4, C33940-11, C33940-15, C33940-16, C33940-18, C33940-21, C33940-22

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 42.6         | 107      | 42.4         | 106      | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 43.4         | 109      | 41.4         | 104      | 5   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 46.5         | 116      | 45.1         | 113      | 3   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 42.9         | 107      | 41.6         | 104      | 3   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 130          | 108      | 125          | 104      | 4   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 109% | 107% | 70-130% |
| 2037-26-5 | Toluene-D8           | 106% | 104% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 107% | 104% | 70-130% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VL1012-BS  | L32889.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |
| VL1012-BSD | L32890.D | 1  | 05/09/14 | XB | n/a       | n/a        | VL1012           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-1, C33940-3, C33940-5, C33940-6, C33940-7, C33940-8, C33940-10, C33940-12, C33940-13, C33940-14, C33940-17, C33940-19, C33940-20

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 40.6         | 102      | 44.6         | 112      | 9   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 36.6         | 92       | 40.1         | 100      | 9   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 43.8         | 110      | 47.4         | 119      | 8   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 36.8         | 92       | 39.7         | 99       | 8   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 114          | 95       | 124          | 103      | 8   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 106% | 108% | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%  | 95%  | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 100% | 101% | 70-130% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1392-BS  | M46084.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |
| VM1392-BSD | M46085.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-9

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 41.6         | 104      | 42.0         | 105      | 1   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 41.4         | 104      | 41.0         | 103      | 1   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 43.5         | 109      | 45.5         | 114      | 4   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 40.8         | 102      | 40.7         | 102      | 0   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 126          | 105      | 124          | 103      | 2   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 108% | 109% | 70-130% |
| 2037-26-5 | Toluene-D8           | 105% | 104% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 106% | 104% | 70-130% |

\* = Outside of Control Limits.



## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-LCS | M46058.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-2, C33940-4, C33940-11, C33940-15, C33940-16, C33940-18, C33940-21, C33940-22

| CAS No. | Compound | Spike<br>ug/kg | LCS<br>ug/kg | LCS<br>% | Limits |
|---------|----------|----------------|--------------|----------|--------|
|---------|----------|----------------|--------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 107% | 70-130% |
| 2037-26-5 | Toluene-D8           | 108% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103% | 70-130% |

\* = Outside of Control Limits.

## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1392-LCS | M46086.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-9

| CAS No. | Compound | Spike<br>ug/kg | LCS<br>ug/kg | LCS<br>% | Limits |
|---------|----------|----------------|--------------|----------|--------|
|---------|----------|----------------|--------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 106% | 70-130% |
| 2037-26-5 | Toluene-D8           | 109% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103% | 70-130% |

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample                | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|----------|----|----------|----|-----------|------------|------------------|
| C33944-5MS            | M46069.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| C33944-5MSD           | M46070.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| C33944-5 <sup>a</sup> | M46068.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-2, C33940-4, C33940-11, C33940-15, C33940-16, C33940-18, C33940-21, C33940-22

| CAS No.   | Compound                | C33944-5<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 1940           | 1630        | 84      | 1940           | 1630         | 84       | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 1940           | 1950        | 100     | 1940           | 1940         | 100      | 1   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 1940           | 2060        | 106     | 1940           | 2030         | 105      | 1   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 1940           | 1800        | 93      | 1940           | 1800         | 93       | 0   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 5830           | 5480        | 94      | 5830           | 5410         | 93       | 1   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33944-5 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 115% | 110% | 110%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 106% | 106% | 107%     | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 112% | 108% | 106%     | 70-130% |

(a) 4:1 composite.

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| C33940-1MS  | L32907.D | 1  | 05/10/14 | XB | n/a       | n/a        | VL1012           |
| C33940-1MSD | L32908.D | 1  | 05/10/14 | XB | n/a       | n/a        | VL1012           |
| C33940-1    | L32906.D | 1  | 05/10/14 | XB | n/a       | n/a        | VL1012           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-1, C33940-3, C33940-5, C33940-6, C33940-7, C33940-8, C33940-10, C33940-12, C33940-13, C33940-14, C33940-17, C33940-19, C33940-20

| CAS No.   | Compound                | C33940-1<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 39.6           | 31.7        | 80* a   | 39.5           | 31.1         | 79* a    | 2   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 39.6           | 31.7        | 80      | 39.5           | 31.4         | 79* a    | 1   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 39.6           | 39.6        | 100     | 39.5           | 37.9         | 96       | 4   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 39.6           | 30.4        | 77* a   | 39.5           | 30.0         | 76* a    | 1   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 119            | 91.3        | 77* a   | 119            | 90.6         | 76* a    | 1   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33940-1 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 111% | 109% | 114%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%  | 93%  | 95%      | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 101% | 101% | 100%     | 70-130% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.



## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| C33953-1MS  | M46096.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |
| C33953-1MSD | M46097.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |
| C33953-1    | M46095.D | 1  | 05/12/14 | XB | n/a       | n/a        | VM1392           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33940-9

| CAS No.   | Compound                | C33953-1<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 1390           | 1170        | 84      | 1390           | 1170         | 84       | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 1390           | 1380        | 99      | 1390           | 1330         | 95       | 4   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 1390           | 1370        | 98      | 1390           | 1360         | 98       | 1   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 1390           | 1310        | 94      | 1390           | 1240         | 89       | 5   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 4180           | 3910        | 93      | 4180           | 3750         | 90       | 4   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33953-1 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 107% | 105% | 100%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 106% | 103% | 107%     | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 107% | 104% | 105%     | 70-130% |

\* = Outside of Control Limits.

## GC/MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33940  
Account: ETCIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP10018-MB | X36396.D | 1  | 05/13/14 | AA | 05/12/14  | OP10018    | EX1589           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 0.83   | 3.3 | 0.73 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 4165-60-0 | Nitrobenzene-d5      | 85% 13-123%  |
| 321-60-8  | 2-Fluorobiphenyl     | 93% 17-126%  |
| 1718-51-0 | Terphenyl-d14        | 114% 51-146% |

## Method Blank Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP10024-MB | X36397.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-21, C33940-22

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 4165-60-0 | Nitrobenzene-d5      | 81% 13-123%  |
| 321-60-8  | 2-Fluorobiphenyl     | 86% 17-126%  |
| 1718-51-0 | Terphenyl-d14        | 114% 51-146% |



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui,HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10018-BS  | X36348.D | 1  | 05/12/14 | AA | 05/12/14  | OP10018    | EX1588           |
| OP10018-BSD | X36349.D | 1  | 05/12/14 | AA | 05/12/14  | OP10018    | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20

| CAS No.  | Compound               | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 167            | 152          | 91       | 156          | 94       | 3   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | 167            | 149          | 89       | 152          | 91       | 2   | 52-105/32         |
| 120-12-7 | Anthracene             | 167            | 152          | 91       | 151          | 91       | 1   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | 167            | 162          | 97       | 170          | 102      | 5   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | 167            | 153          | 92       | 158          | 95       | 3   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | 167            | 174          | 104      | 179          | 107      | 3   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 167            | 161          | 97       | 183          | 110      | 13  | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | 167            | 181          | 109      | 172          | 103      | 5   | 78-120/25         |
| 218-01-9 | Chrysene               | 167            | 172          | 103      | 180          | 108      | 5   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | 167            | 164          | 98       | 192          | 115      | 16  | 69-128/26         |
| 206-44-0 | Fluoranthene           | 167            | 162          | 97       | 163          | 98       | 1   | 70-109/28         |
| 86-73-7  | Fluorene               | 167            | 157          | 94       | 156          | 94       | 1   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 167            | 164          | 98       | 189          | 113      | 14  | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | 167            | 141          | 85       | 142          | 85       | 1   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | 167            | 145          | 87       | 145          | 87       | 0   | 53-102/32         |
| 91-20-3  | Naphthalene            | 167            | 137          | 82       | 142          | 85       | 4   | 49-98/31          |
| 85-01-8  | Phenanthrene           | 167            | 158          | 95       | 164          | 98       | 4   | 55-104/30         |
| 129-00-0 | Pyrene                 | 167            | 165          | 99       | 179          | 107      | 8   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%  | 85%  | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 88%  | 93%  | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 101% | 105% | 51-146% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10024-BS  | X36386.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |
| OP10024-BSD | X36387.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-21, C33940-22

| CAS No.  | Compound               | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 167            | 156          | 94       | 161          | 97       | 3   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | 167            | 153          | 92       | 160          | 96       | 4   | 52-105/32         |
| 120-12-7 | Anthracene             | 167            | 150          | 90       | 162          | 97       | 8   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | 167            | 172          | 103      | 175          | 105      | 2   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | 167            | 156          | 94       | 162          | 97       | 4   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | 167            | 176          | 106      | 184          | 110      | 4   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 167            | 199          | 119      | 192          | 115      | 4   | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | 167            | 173          | 104      | 172          | 103      | 1   | 78-120/25         |
| 218-01-9 | Chrysene               | 167            | 179          | 107      | 182          | 109      | 2   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | 167            | 204          | 122      | 197          | 118      | 3   | 69-128/26         |
| 206-44-0 | Fluoranthene           | 167            | 164          | 98       | 189          | 113* a   | 14  | 70-109/28         |
| 86-73-7  | Fluorene               | 167            | 159          | 95       | 173          | 104      | 8   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 167            | 205          | 123* a   | 200          | 120      | 2   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | 167            | 143          | 86       | 152          | 91       | 6   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | 167            | 148          | 89       | 156          | 94       | 5   | 53-102/32         |
| 91-20-3  | Naphthalene            | 167            | 142          | 85       | 147          | 88       | 3   | 49-98/31          |
| 85-01-8  | Phenanthrene           | 167            | 164          | 98       | 169          | 101      | 3   | 55-104/30         |
| 129-00-0 | Pyrene                 | 167            | 158          | 95       | 158          | 95       | 0   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 84%  | 84%  | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 90%  | 86%  | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 105% | 103% | 51-146% |

(a) Outside of in-house control limits; but within method control limits.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10018-MS  | X36354.D | 1  | 05/13/14 | AA | 05/12/14  | OP10018    | EX1588           |
| OP10018-MSD | X36355.D | 1  | 05/13/14 | AA | 05/12/14  | OP10018    | EX1588           |
| C33940-20   | X36353.D | 1  | 05/13/14 | AA | 05/12/14  | OP10018    | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20

| CAS No.  | Compound               | C33940-20<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|--------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | ND                 |   | 166            | 152         | 92      | 166            | 150          | 90       | 1   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | ND                 |   | 166            | 149         | 90      | 166            | 146          | 88       | 2   | 52-105/32         |
| 120-12-7 | Anthracene             | ND                 |   | 166            | 151         | 91      | 166            | 148          | 89       | 2   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | ND                 |   | 166            | 157         | 95      | 166            | 157          | 95       | 0   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | ND                 |   | 166            | 155         | 94      | 166            | 155          | 93       | 0   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | ND                 |   | 166            | 171         | 103     | 166            | 177          | 107      | 3   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | ND                 |   | 166            | 121         | 73      | 166            | 118          | 71       | 3   | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | ND                 |   | 166            | 177         | 107     | 166            | 170          | 102      | 4   | 78-120/25         |
| 218-01-9 | Chrysene               | ND                 |   | 166            | 163         | 98      | 166            | 163          | 98       | 0   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | ND                 |   | 166            | 134         | 81      | 166            | 135          | 81       | 1   | 69-128/26         |
| 206-44-0 | Fluoranthene           | ND                 |   | 166            | 171         | 103     | 166            | 161          | 97       | 6   | 70-109/28         |
| 86-73-7  | Fluorene               | ND                 |   | 166            | 156         | 94      | 166            | 152          | 92       | 3   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND                 |   | 166            | 132         | 80      | 166            | 133          | 80       | 1   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | ND                 |   | 166            | 143         | 86      | 166            | 138          | 83       | 4   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | ND                 |   | 166            | 147         | 89      | 166            | 142          | 86       | 3   | 53-102/32         |
| 91-20-3  | Naphthalene            | ND                 |   | 166            | 140         | 84      | 166            | 135          | 81       | 4   | 49-98/31          |
| 85-01-8  | Phenanthrene           | ND                 |   | 166            | 156         | 94      | 166            | 153          | 92       | 2   | 55-104/30         |
| 129-00-0 | Pyrene                 | ND                 |   | 166            | 148         | 89      | 166            | 155          | 93       | 5   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | MS  | MSD  | C33940-20 | Limits  |
|-----------|----------------------|-----|------|-----------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 82% | 82%  | 87%       | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 88% | 90%  | 94%       | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 92% | 100% | 102%      | 51-146% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10024-MS  | X36391.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |
| OP10024-MSD | X36392.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |
| C33953-1    | X36390.D | 1  | 05/13/14 | AA | 05/12/14  | OP10024    | EX1589           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33940-21, C33940-22

| CAS No.  | Compound               | C33953-1<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | ND                |   | 166            | 141         | 85      | 166            | 176          | 106* a   | 22  | 51-102/33         |
| 208-96-8 | Acenaphthylene         | ND                |   | 166            | 141         | 85      | 166            | 175          | 105      | 22  | 52-105/32         |
| 120-12-7 | Anthracene             | ND                |   | 166            | 142         | 85      | 166            | 177          | 106* a   | 22  | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | ND                |   | 166            | 153         | 92      | 166            | 189          | 114      | 21  | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | ND                |   | 166            | 145         | 87      | 166            | 182          | 109      | 23  | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | ND                |   | 166            | 148         | 89      | 166            | 185          | 111      | 22  | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | ND                |   | 166            | 163         | 98      | 166            | 191          | 115      | 16  | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | ND                |   | 166            | 155         | 93      | 166            | 193          | 116      | 22  | 78-120/25         |
| 218-01-9 | Chrysene               | ND                |   | 166            | 156         | 94      | 166            | 192          | 115* a   | 21  | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | ND                |   | 166            | 193         | 116     | 166            | 234          | 141* a   | 19  | 69-128/26         |
| 206-44-0 | Fluoranthene           | ND                |   | 166            | 157         | 94      | 166            | 194          | 117* a   | 21  | 70-109/28         |
| 86-73-7  | Fluorene               | ND                |   | 166            | 151         | 91      | 166            | 188          | 113* a   | 22  | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND                |   | 166            | 180         | 108     | 166            | 219          | 132* a   | 20  | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | ND                |   | 166            | 132         | 79      | 166            | 166          | 100* a   | 23  | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | ND                |   | 166            | 136         | 82      | 166            | 171          | 103* a   | 23  | 53-102/32         |
| 91-20-3  | Naphthalene            | ND                |   | 166            | 126         | 76      | 166            | 159          | 96       | 23  | 49-98/31          |
| 85-01-8  | Phenanthrene           | ND                |   | 166            | 147         | 88      | 166            | 184          | 111* a   | 22  | 55-104/30         |
| 129-00-0 | Pyrene                 | ND                |   | 166            | 145         | 87      | 166            | 177          | 106      | 20  | 67-108/29         |

| CAS No.   | Surrogate Recoveries | MS  | MSD  | C33953-1 | Limits  |
|-----------|----------------------|-----|------|----------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 70% | 90%  | 75%      | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 76% | 94%  | 82%      | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 95% | 115% | 118%     | 51-146% |

(a) Outside laboratory control limits.

\* = Outside of Control Limits.



## GC Volatiles

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## QC Data Summaries

7

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1800-MB | JK43987.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits       |
|---------|----------------------|--------------|
| 98-08-8 | aaa-Trifluorotoluene | 111% 60-115% |

7.1.1

7

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1802-MB | JK44036.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1802          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits       |
|---------|----------------------|--------------|
| 98-08-8 | aaa-Trifluorotoluene | 114% 60-115% |

7.1.2

7

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1800-BS  | JK43988.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| GJK1800-BSD | JK43989.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | 0.5            | 0.413        | 83       | 0.407        | 81       | 1   | 76-127/32         |

| CAS No. | Surrogate Recoveries | BSP  | BSD  | Limits  |
|---------|----------------------|------|------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 103% | 102% | 60-115% |

\* = Outside of Control Limits.



## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1802-BS  | JK44037.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1802          |
| GJK1802-BSD | JK44038.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1802          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | 0.5            | 0.450        | 90       | 0.440        | 88       | 2   | 76-127/32         |

| CAS No. | Surrogate Recoveries | BSP | BSD  | Limits  |
|---------|----------------------|-----|------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 98% | 102% | 60-115% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| C33923-16MS  | JK43991.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| C33923-16MSD | JK43992.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| C33923-16    | JK43990.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound         | C33923-16<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                 | 0.492          | 0.395       | 80      | 0.487          | 0.393        | 81       | 1   | 76-127/32         |

| CAS No. | Surrogate Recoveries | MS   | MSD  | C33923-16 | Limits  |
|---------|----------------------|------|------|-----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 102% | 103% | 103%      | 60-115% |

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| C33940-22MS  | JK44060.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| C33940-22MSD | JK44061.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |
| C33940-22    | JK44059.D | 1  | 05/14/14 | TT | n/a       | n/a        | GJK1802          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound         | C33940-22<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                 | 0.477          | 0.392       | 82      | 0.476          | 0.368        | 77       | 6   | 76-127/32         |

| CAS No. | Surrogate Recoveries | MS   | MSD | C33940-22 | Limits  |
|---------|----------------------|------|-----|-----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 102% | 95% | 112%      | 60-115% |

\* = Outside of Control Limits.

## GC Semi-volatiles

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### QC Data Summaries

8

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-MB | MM021754.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin                    | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC                 | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC                  | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC                 | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane)       | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane                 | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin                  | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD                  | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE <sup>a</sup>     | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT <sup>a</sup>     | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin                    | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde           | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I              | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II             | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate        | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor                | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide        | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor <sup>a</sup> | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene                 | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 877-09-8  | Tetrachloro-m-xylene | 96% 49-127%  |
| 877-09-8  | Tetrachloro-m-xylene | 106% 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 105% 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 113% 53-145% |

(a) Results from signal #2.

8.1.1  
8

## Method Blank Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui,HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10019-MB | MM021881.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 33  | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 33  | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 877-09-8  | Tetrachloro-m-xylene | 94% 49-127%  |
| 877-09-8  | Tetrachloro-m-xylene | 102% 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 107% 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 104% 53-145% |

8.1.2  
8

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-MB | HH312946.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 630-01-3 | Hexacosane           | 105% 37-122% |

8.1.3  
8

## Method Blank Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10014-MB | GG51803.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 630-01-3 | Hexacosane           | 120% 37-122% |

8.1.4  
8



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-BS  | MM021755.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |
| OP10010-BSD | MM021756.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>%         | BSD<br>ug/kg | BSD<br>%         | RPD            | Limits<br>Rec/RPD |
|------------|---------------------|----------------|--------------|------------------|--------------|------------------|----------------|-------------------|
| 309-00-2   | Aldrin              | 33.3           | 30.0         | 90               | 30.1         | 90               | 0              | 74-124/20         |
| 319-84-6   | alpha-BHC           | 33.3           | 32.8         | 98               | 32.1         | 96               | 2              | 70-127/20         |
| 319-85-7   | beta-BHC            | 33.3           | 31.8         | 95               | 31.9         | 96               | 0              | 76-137/20         |
| 319-86-8   | delta-BHC           | 33.3           | 31.8         | 95               | 31.7         | 95               | 0              | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | 33.3           | 32.9         | 99               | 32.8         | 98               | 0              | 75-130/20         |
| 60-57-1    | Dieldrin            | 33.3           | 32.2         | 97               | 32.1         | 96               | 0              | 75-135/13         |
| 72-54-8    | 4,4'-DDD            | 33.3           | 32.4         | 97               | 31.7         | 95               | 2              | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | 33.3           | 33.9         | 102 <sup>a</sup> | 32.1         | 96 <sup>a</sup>  | 5 <sup>a</sup> | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | 33.3           | 33.0         | 99 <sup>a</sup>  | 31.5         | 95 <sup>a</sup>  | 5 <sup>a</sup> | 66-129/20         |
| 72-20-8    | Endrin              | 33.3           | 31.9         | 96               | 31.3         | 94               | 2              | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | 33.3           | 34.1         | 102              | 34.3         | 103              | 1              | 71-133/20         |
| 959-98-8   | Endosulfan-I        | 33.3           | 33.2         | 100              | 33.3         | 100              | 0              | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | 33.3           | 33.4         | 100              | 32.8         | 98               | 2              | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | 33.3           | 37.9         | 114              | 37.9         | 114              | 0              | 69-137/20         |
| 76-44-8    | Heptachlor          | 33.3           | 33.3         | 100              | 33.4         | 100              | 0              | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | 33.3           | 31.6         | 95               | 31.7         | 95               | 0              | 79-127/20         |
| 72-43-5    | Methoxychlor        | 33.3           | 34.4         | 103 <sup>a</sup> | 35.9         | 108 <sup>a</sup> | 4 <sup>a</sup> | 70-137/20         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 94%  | 97%  | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 106% | 105% | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 111% | 106% | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 116% | 110% | 53-145% |

(a) Results from signal #2.

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10019-BS  | MM021882.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| OP10019-BSD | MM021883.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | 33.3           | 32.9         | 99       | 32.6         | 98       | 1   | 74-124/20         |
| 319-84-6   | alpha-BHC           | 33.3           | 31.7         | 95       | 31.6         | 95       | 0   | 70-127/20         |
| 319-85-7   | beta-BHC            | 33.3           | 37.3         | 112      | 37.6         | 113      | 1   | 76-137/20         |
| 319-86-8   | delta-BHC           | 33.3           | 37.9         | 114      | 38.3         | 115      | 1   | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | 33.3           | 35.9         | 108      | 36.2         | 109      | 1   | 75-130/20         |
| 60-57-1    | Dieldrin            | 33.3           | 38.2         | 115      | 38.7         | 116      | 1   | 75-135/13         |
| 72-54-8    | 4,4'-DDD            | 33.3           | 38.6         | 116      | 38.8         | 116      | 1   | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | 33.3           | 39.1         | 117      | 39.2         | 118      | 0   | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | 33.3           | 37.7         | 113      | 37.8         | 113      | 0   | 66-129/20         |
| 72-20-8    | Endrin              | 33.3           | 38.3         | 115      | 38.3         | 115      | 0   | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | 33.3           | 36.4         | 109      | 36.3         | 109      | 0   | 71-133/20         |
| 959-98-8   | Endosulfan-I        | 33.3           | 35.1         | 105      | 35.5         | 107      | 1   | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | 33.3           | 36.8         | 110      | 36.8         | 110      | 0   | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | 33.3           | 38.9         | 117      | 39.0         | 117      | 0   | 69-137/20         |
| 76-44-8    | Heptachlor          | 33.3           | 34.2         | 103      | 34.4         | 103      | 1   | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | 33.3           | 37.4         | 112      | 37.9         | 114      | 1   | 79-127/20         |
| 72-43-5    | Methoxychlor        | 33.3           | 38.0         | 114      | 37.7         | 113      | 1   | 70-137/20         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%  | 88%  | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 95%  | 93%  | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 108% | 109% | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 106% | 105% | 53-145% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-BS  | HH312954.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| OP10009-BSD | HH312955.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound        | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 33.3           | 28.6         | 86       | 29.2         | 88       | 2   | 39-102/29         |
|         | TPH (> C28-C40) | 33.3           | 34.6         | 104      | 35.1         | 105      | 1   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | BSP  | BSD  | Limits  |
|----------|----------------------|------|------|---------|
| 630-01-3 | Hexacosane           | 109% | 109% | 37-122% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10014-BS  | GG51801.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| OP10014-BSD | GG51802.D | 1  | 05/13/14 | NN | 05/09/14  | OP10014    | GGG1468          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound        | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 33.3           | 30.3         | 91       | 30.2         | 91       | 0   | 39-102/29         |
|         | TPH (> C28-C40) | 33.3           | 35.8         | 107      | 35.8         | 107      | 0   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | BSP  | BSD  | Limits  |
|----------|----------------------|------|------|---------|
| 630-01-3 | Hexacosane           | 111% | 109% | 37-122% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample                | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-MS            | MM021749.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| OP10010-MSD           | MM021750.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| C33928-7 <sup>a</sup> | MM021748.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9, C33940-10

| CAS No.    | Compound            | C33928-7<br>ug/kg | Spike<br>ug/kg | MS<br>ug/kg | MS<br>%         | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>%        | RPD             | Limits<br>Rec/RPD |
|------------|---------------------|-------------------|----------------|-------------|-----------------|----------------|--------------|-----------------|-----------------|-------------------|
| 309-00-2   | Aldrin              | ND                | 33.1           | 25.6        | 77              | 33.1           | 26.2         | 79              | 2               | 74-124/20         |
| 319-84-6   | alpha-BHC           | ND                | 33.1           | 25.3        | 76              | 33.1           | 25.4         | 77              | 0               | 70-127/20         |
| 319-85-7   | beta-BHC            | ND                | 33.1           | 25.2        | 76              | 33.1           | 25.3         | 76              | 0               | 76-137/20         |
| 319-86-8   | delta-BHC           | ND                | 33.1           | 22.9        | 69              | 33.1           | 23.0         | 69              | 0               | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | ND                | 33.1           | 25.0        | 75              | 33.1           | 25.3         | 76              | 1               | 75-130/20         |
| 60-57-1    | Dieldrin            | ND                | 33.1           | 28.4        | 86              | 33.1           | 26.6         | 80              | 7               | 45-132/24         |
| 72-54-8    | 4,4'-DDD            | ND                | 33.1           | 26.8        | 81              | 33.1           | 27.2         | 82              | 1               | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | ND                | 33.1           | 25.4        | 77 <sup>b</sup> | 33.1           | 24.4         | 74 <sup>b</sup> | 4 <sup>b</sup>  | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | ND                | 33.1           | 23.6        | 71 <sup>b</sup> | 33.1           | 22.3         | 67 <sup>b</sup> | 6 <sup>b</sup>  | 66-129/20         |
| 72-20-8    | Endrin              | ND                | 33.1           | 32.3        | 97              | 33.1           | 30.8         | 93              | 5               | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | ND                | 33.1           | 26.5        | 80              | 33.1           | 25.2         | 76              | 5               | 71-133/20         |
| 959-98-8   | Endosulfan-I        | ND                | 33.1           | 27.2        | 82              | 33.1           | 26.9         | 81              | 1               | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | ND                | 33.1           | 27.1        | 82              | 33.1           | 26.7         | 81              | 1               | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | ND                | 33.1           | 34.6        | 104             | 33.1           | 32.9         | 99              | 5               | 69-137/20         |
| 76-44-8    | Heptachlor          | ND                | 33.1           | 27.1        | 82              | 33.1           | 27.5         | 83              | 1               | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | ND                | 33.1           | 26.8        | 81              | 33.1           | 26.7         | 81              | 0               | 79-127/20         |
| 72-43-5    | Methoxychlor        | ND                | 33.1           | 30.1        | 91 <sup>b</sup> | 33.1           | 26.9         | 81 <sup>b</sup> | 11 <sup>b</sup> | 70-137/20         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33928-7 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 82%  | 83%  | 88%      | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 89%  | 89%  | 92%      | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 104% | 98%  | 111%     | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 112% | 115% | 131%     | 53-145% |

(a) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(b) Results from signal #2.

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10019-MS  | MM021889.D | 5  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| OP10019-MSD | MM021890.D | 5  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |
| C33940-22   | MM021888.D | 1  | 05/12/14 | RV | 05/12/14  | OP10019    | GMM648           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No.    | Compound            | C33940-22<br>ug/kg | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 | 33.2           | 30.4        | 92      | 33.2           | 30.1         | 91       | 1   | 74-124/20         |
| 319-84-6   | alpha-BHC           | ND                 | 33.2           | 27.5        | 83      | 33.2           | 27.1         | 82       | 1   | 70-127/20         |
| 319-85-7   | beta-BHC            | ND                 | 33.2           | 32.4        | 98      | 33.2           | 32.4         | 98       | 0   | 76-137/20         |
| 319-86-8   | delta-BHC           | ND                 | 33.2           | 30.7        | 92      | 33.2           | 30.4         | 92       | 1   | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 33.2           | 31.1        | 94      | 33.2           | 30.5         | 92       | 2   | 75-130/20         |
| 60-57-1    | Dieldrin            | ND                 | 33.2           | 33.7        | 102     | 33.2           | 33.5         | 101      | 1   | 45-132/24         |
| 72-54-8    | 4,4'-DDD            | ND                 | 33.2           | 32.0        | 96      | 33.2           | 31.4         | 95       | 2   | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | ND                 | 33.2           | 32.3        | 97      | 33.2           | 32.0         | 96       | 1   | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | ND                 | 33.2           | 31.0        | 93      | 33.2           | 29.6         | 89       | 5   | 66-129/20         |
| 72-20-8    | Endrin              | ND                 | 33.2           | 32.9        | 99      | 33.2           | 31.7         | 96       | 4   | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | ND                 | 33.2           | 34.7        | 105     | 33.2           | 33.8         | 102      | 3   | 71-133/20         |
| 959-98-8   | Endosulfan-I        | ND                 | 33.2           | 32.2        | 97      | 33.2           | 32.0         | 96       | 1   | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | ND                 | 33.2           | 32.3        | 97      | 33.2           | 31.7         | 96       | 2   | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | ND                 | 33.2           | 33.7        | 102     | 33.2           | 33.0         | 99       | 2   | 69-137/20         |
| 76-44-8    | Heptachlor          | ND                 | 33.2           | 30.3        | 91      | 33.2           | 30.1         | 91       | 1   | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 33.2           | 34.1        | 103     | 33.2           | 33.6         | 101      | 1   | 79-127/20         |
| 72-43-5    | Methoxychlor        | ND                 | 33.2           | 34.9        | 105     | 33.2           | 30.9         | 93       | 12  | 70-137/20         |

| CAS No.   | Surrogate Recoveries | MS   | MSD | C33940-22 | Limits  |
|-----------|----------------------|------|-----|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 84%  | 82% | 92%       | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 82%  | 82% | 96%       | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102% | 96% | 106%      | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 93%  | 94% | 103%      | 53-145% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33940

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-MS  | HH312961.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| OP10009-MSD | HH312962.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| C33923-16   | HH312947.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-1, C33940-2, C33940-3, C33940-4, C33940-5, C33940-6, C33940-7, C33940-8, C33940-9

| CAS No. | Compound        | C33923-16<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | ND                 | 33.2           | 28.8        | 87      | 33.1           | 28.2         | 85       | 2   | 39-102/29         |
|         | TPH (> C28-C40) | ND                 | 33.2           | 34.2        | 103     | 33.1           | 34.6         | 104      | 1   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | MS   | MSD  | C33923-16 | Limits  |
|----------|----------------------|------|------|-----------|---------|
| 630-01-3 | Hexacosane           | 112% | 108% | 106%      | 37-122% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33940  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10014-MS  | GG51818.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| OP10014-MSD | GG51819.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |
| C33940-22   | GG51817.D | 1  | 05/14/14 | NN | 05/09/14  | OP10014    | GGG1468          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

| CAS No. | Compound        | C33940-22<br>mg/kg | Q | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|--------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | ND                 |   | 33.2           | 30.5        | 92      | 33.2           | 30.0         | 90       | 2   | 39-102/29         |
|         | TPH (> C28-C40) | 2.11               | J | 33.2           | 36.1        | 103     | 33.2           | 36.8         | 105      | 2   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | MS   | MSD  | C33940-22 | Limits  |
|----------|----------------------|------|------|-----------|---------|
| 630-01-3 | Hexacosane           | 114% | 119% | 122%      | 37-122% |

\* = Outside of Control Limits.



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/13/14

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 20   | 1.3 | 2    |           |       |
| Antimony   | 2.0  | .07 | .087 |           |       |
| Arsenic    | 2.0  | .07 | .07  | -0.22     | <2.0  |
| Barium     | 20   | .04 | .035 | 0.20      | <20   |
| Beryllium  | 1.0  | .02 | .012 |           |       |
| Boron      | 10   | .09 | .2   |           |       |
| Cadmium    | 1.0  | .02 | .015 | -0.060    | <1.0  |
| Calcium    | 500  | .71 | 7.6  |           |       |
| Chromium   | 1.0  | .03 | .054 | -0.42     | <1.0  |
| Cobalt     | 1.0  | .02 | .022 |           |       |
| Copper     | 2.5  | .12 | .19  |           |       |
| Iron       | 20   | .64 | 1.6  |           |       |
| Lead       | 2.0  | .07 | .054 | -0.060    | <2.0  |
| Magnesium  | 500  | 2.7 | 1.5  |           |       |
| Manganese  | 1.5  | .01 | .054 |           |       |
| Molybdenum | 2.0  | .02 | .024 |           |       |
| Nickel     | 1.0  | .02 | .024 |           |       |
| Potassium  | 1000 | 1.8 | 1.3  |           |       |
| Selenium   | 2.0  | .18 | .23  | 0.65      | <2.0  |
| Silicon    |      | .12 |      |           |       |
| Silver     | 1.0  | .03 | .044 | -0.11     | <1.0  |
| Sodium     | 1000 | 1.5 | 4.8  |           |       |
| Strontium  | 1.0  | .02 | .017 |           |       |
| Thallium   | 2.0  | .05 | .073 |           |       |
| Tin        | 50   | .02 | .41  |           |       |
| Titanium   | 1.0  | .04 | .079 |           |       |
| Vanadium   | 1.0  | .03 | .025 |           |       |
| Zinc       | 2.0  | .03 | .098 |           |       |

Associated samples MP7824: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.1.1  
9

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/13/14

| Metal      | C33923-16<br>Original MS |     | Spikelet<br>MPIR5 % Rec |          | QC<br>Limits |
|------------|--------------------------|-----|-------------------------|----------|--------------|
| Aluminum   |                          |     |                         |          |              |
| Antimony   |                          |     |                         |          |              |
| Arsenic    | 1.7                      | 6.6 | 4.94                    | 99.2     | 75-125       |
| Barium     | 3.0                      | 7.6 | 4.94                    | 93.1     | 75-125       |
| Beryllium  |                          |     |                         |          |              |
| Boron      |                          |     |                         |          |              |
| Cadmium    | 0.095                    | 5.2 | 4.94                    | 103.3    | 75-125       |
| Calcium    |                          |     |                         |          |              |
| Chromium   | 2.9                      | 8.2 | 4.94                    | 107.3    | 75-125       |
| Cobalt     |                          |     |                         |          |              |
| Copper     |                          |     |                         |          |              |
| Iron       |                          |     |                         |          |              |
| Lead       | 0.0                      | 3.7 | 4.94                    | 74.9N(a) | 75-125       |
| Magnesium  |                          |     |                         |          |              |
| Manganese  |                          |     |                         |          |              |
| Molybdenum |                          |     |                         |          |              |
| Nickel     |                          |     |                         |          |              |
| Potassium  |                          |     |                         |          |              |
| Selenium   | 1.0                      | 5.9 | 4.94                    | 99.2     | 75-125       |
| Silicon    |                          |     |                         |          |              |
| Silver     | 0.0                      | 4.6 | 4.94                    | 93.1     | 75-125       |
| Sodium     |                          |     |                         |          |              |
| Strontium  |                          |     |                         |          |              |
| Thallium   |                          |     |                         |          |              |
| Tin        |                          |     |                         |          |              |
| Titanium   |                          |     |                         |          |              |
| Vanadium   |                          |     |                         |          |              |
| Zinc       |                          |     |                         |          |              |

Associated samples MP7824: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/13/14

| Metal      | C33923-16<br>Original MSD |     | Spikelot<br>MPIR5 % Rec |       | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-----|-------------------------|-------|------------|-------------|
| Aluminum   |                           |     |                         |       |            |             |
| Antimony   |                           |     |                         |       |            |             |
| Arsenic    | 1.7                       | 5.8 | 4.98                    | 82.4  | 12.9       | 20          |
| Barium     | 3.0                       | 8.4 | 4.98                    | 108.5 | 10.0       | 20          |
| Beryllium  |                           |     |                         |       |            |             |
| Boron      |                           |     |                         |       |            |             |
| Cadmium    | 0.095                     | 5.4 | 4.98                    | 106.6 | 3.8        | 20          |
| Calcium    |                           |     |                         |       |            |             |
| Chromium   | 2.9                       | 8.4 | 4.98                    | 110.6 | 2.4        | 20          |
| Cobalt     |                           |     |                         |       |            |             |
| Copper     |                           |     |                         |       |            |             |
| Iron       |                           |     |                         |       |            |             |
| Lead       | 0.0                       | 3.9 | 4.98                    | 78.4  | 5.3        | 20          |
| Magnesium  |                           |     |                         |       |            |             |
| Manganese  |                           |     |                         |       |            |             |
| Molybdenum |                           |     |                         |       |            |             |
| Nickel     |                           |     |                         |       |            |             |
| Potassium  |                           |     |                         |       |            |             |
| Selenium   | 1.0                       | 6.2 | 4.98                    | 104.5 | 5.0        | 20          |
| Silicon    |                           |     |                         |       |            |             |
| Silver     | 0.0                       | 4.0 | 4.98                    | 80.4  | 14.0       | 20          |
| Sodium     |                           |     |                         |       |            |             |
| Strontium  |                           |     |                         |       |            |             |
| Thallium   |                           |     |                         |       |            |             |
| Tin        |                           |     |                         |       |            |             |
| Titanium   |                           |     |                         |       |            |             |
| Vanadium   |                           |     |                         |       |            |             |
| Zinc       |                           |     |                         |       |            |             |

Associated samples MP7824: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.1.2  
9



## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/13/14

| Metal      | BSP<br>Result | Spikelot<br>MPIR5 | % Rec | QC<br>Limits |
|------------|---------------|-------------------|-------|--------------|
| Aluminum   |               |                   |       |              |
| Antimony   |               |                   |       |              |
| Arsenic    | 45.8          | 50                | 91.6  | 80-120       |
| Barium     | 47.2          | 50                | 94.4  | 80-120       |
| Beryllium  |               |                   |       |              |
| Boron      |               |                   |       |              |
| Cadmium    | 44.9          | 50                | 89.8  | 80-120       |
| Calcium    |               |                   |       |              |
| Chromium   | 50.7          | 50                | 101.4 | 80-120       |
| Cobalt     |               |                   |       |              |
| Copper     |               |                   |       |              |
| Iron       |               |                   |       |              |
| Lead       | 47.6          | 50                | 95.2  | 80-120       |
| Magnesium  |               |                   |       |              |
| Manganese  |               |                   |       |              |
| Molybdenum |               |                   |       |              |
| Nickel     |               |                   |       |              |
| Potassium  |               |                   |       |              |
| Selenium   | 45.2          | 50                | 90.4  | 80-120       |
| Silicon    |               |                   |       |              |
| Silver     | 44.6          | 50                | 89.2  | 80-120       |
| Sodium     |               |                   |       |              |
| Strontium  |               |                   |       |              |
| Thallium   |               |                   |       |              |
| Tin        |               |                   |       |              |
| Titanium   |               |                   |       |              |
| Vanadium   |               |                   |       |              |
| Zinc       |               |                   |       |              |

Associated samples MP7824: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.1.3  
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: ug/l

Prep Date: 05/13/14

| C33923-16  |          | QC            |                |
|------------|----------|---------------|----------------|
| Metal      | Original | SDL 5:25 %DIF | Limits         |
| Aluminum   |          |               |                |
| Antimony   |          |               |                |
| Arsenic    | 167      | 0.00          | 100.0 (a) 0-10 |
| Barium     | 300      | 268           | 10.6 (a) 0-10  |
| Beryllium  |          |               |                |
| Boron      |          |               |                |
| Cadmium    | 9.50     | 53.7          | 465.3 (a) 0-10 |
| Calcium    |          |               |                |
| Chromium   | 292      | 231           | 21.0* (b) 0-10 |
| Cobalt     |          |               |                |
| Copper     |          |               |                |
| Iron       |          |               |                |
| Lead       | 0.00     | 0.00          | NC 0-10        |
| Magnesium  |          |               |                |
| Manganese  |          |               |                |
| Molybdenum |          |               |                |
| Nickel     |          |               |                |
| Potassium  |          |               |                |
| Selenium   | 101      | 259           | 156.7 (a) 0-10 |
| Silicon    |          |               |                |
| Silver     | 0.00     | 0.00          | NC 0-10        |
| Sodium     |          |               |                |
| Strontium  |          |               |                |
| Thallium   |          |               |                |
| Tin        |          |               |                |
| Titanium   |          |               |                |
| Vanadium   |          |               |                |
| Zinc       |          |               |                |

Associated samples MP7824: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7833  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/14/14

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 20   | 1.3 | 2    |           |       |
| Antimony   | 2.0  | .07 | .087 |           |       |
| Arsenic    | 2.0  | .07 | .07  | -0.31     | <2.0  |
| Barium     | 20   | .04 | .035 | 0.27      | <20   |
| Beryllium  | 1.0  | .02 | .012 |           |       |
| Boron      | 10   | .09 | .2   |           |       |
| Cadmium    | 1.0  | .02 | .015 | 0.030     | <1.0  |
| Calcium    | 500  | .71 | 7.6  |           |       |
| Chromium   | 1.0  | .03 | .054 | -0.20     | <1.0  |
| Cobalt     | 1.0  | .02 | .022 |           |       |
| Copper     | 2.5  | .12 | .19  |           |       |
| Iron       | 20   | .64 | 1.6  |           |       |
| Lead       | 2.0  | .07 | .054 | 0.10      | <2.0  |
| Magnesium  | 500  | 2.7 | 1.5  |           |       |
| Manganese  | 1.5  | .01 | .054 |           |       |
| Molybdenum | 2.0  | .02 | .024 |           |       |
| Nickel     | 1.0  | .02 | .024 |           |       |
| Potassium  | 1000 | 1.8 | 1.3  |           |       |
| Selenium   | 2.0  | .18 | .23  | 0.65      | <2.0  |
| Silicon    |      | .12 |      |           |       |
| Silver     | 1.0  | .03 | .044 | -0.010    | <1.0  |
| Sodium     | 1000 | 1.5 | 4.8  |           |       |
| Strontium  | 1.0  | .02 | .017 |           |       |
| Thallium   | 2.0  | .05 | .073 |           |       |
| Tin        | 50   | .02 | .41  |           |       |
| Titanium   | 1.0  | .04 | .079 |           |       |
| Vanadium   | 1.0  | .03 | .025 |           |       |
| Zinc       | 2.0  | .03 | .098 |           |       |

Associated samples MP7833: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7833  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/14/14

| Metal      | C33940-6<br>Original MS |      | Spikelet<br>MPIR5 | % Rec    | QC<br>Limits |
|------------|-------------------------|------|-------------------|----------|--------------|
| Aluminum   |                         |      |                   |          |              |
| Antimony   |                         |      |                   |          |              |
| Arsenic    | 5.5                     | 11.3 | 4.94              | 117.5    | 75-125       |
| Barium     | 3.2                     | 7.6  | 4.94              | 89.1     | 75-125       |
| Beryllium  |                         |      |                   |          |              |
| Boron      |                         |      |                   |          |              |
| Cadmium    | 0.13                    | 5.3  | 4.94              | 104.7    | 75-125       |
| Calcium    |                         |      |                   |          |              |
| Chromium   | 5.4                     | 7.3  | 4.94              | 38.5N(a) | 75-125       |
| Cobalt     |                         |      |                   |          |              |
| Copper     |                         |      |                   |          |              |
| Iron       |                         |      |                   |          |              |
| Lead       | 4.4                     | 9.7  | 4.94              | 107.4    | 75-125       |
| Magnesium  |                         |      |                   |          |              |
| Manganese  |                         |      |                   |          |              |
| Molybdenum |                         |      |                   |          |              |
| Nickel     |                         |      |                   |          |              |
| Potassium  |                         |      |                   |          |              |
| Selenium   | 0.52                    | 5.1  | 4.94              | 92.8     | 75-125       |
| Silicon    |                         |      |                   |          |              |
| Silver     | 0.0                     | 3.6  | 4.94              | 72.9N(a) | 75-125       |
| Sodium     |                         |      |                   |          |              |
| Strontium  |                         |      |                   |          |              |
| Thallium   |                         |      |                   |          |              |
| Tin        |                         |      |                   |          |              |
| Titanium   |                         |      |                   |          |              |
| Vanadium   |                         |      |                   |          |              |
| Zinc       |                         |      |                   |          |              |

Associated samples MP7833: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.



## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7833  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date:

05/14/14

| Metal      | C33940-6<br>Original MSD |      | Spikelot<br>MPIR5 | % Rec     | MSD<br>RPD | QC<br>Limit |
|------------|--------------------------|------|-------------------|-----------|------------|-------------|
| Aluminum   |                          |      |                   |           |            |             |
| Antimony   |                          |      |                   |           |            |             |
| Arsenic    | 5.5                      | 14.9 | 4.98              | 188.9N(a) | 27.5 (b)   | 20          |
| Barium     | 3.2                      | 9.1  | 4.98              | 118.6     | 18.0       | 20          |
| Beryllium  |                          |      |                   |           |            |             |
| Boron      |                          |      |                   |           |            |             |
| Cadmium    | 0.13                     | 5.9  | 4.98              | 116.0     | 10.7       | 20          |
| Calcium    |                          |      |                   |           |            |             |
| Chromium   | 5.4                      | 9.4  | 4.98              | 80.4      | 25.1 (b)   | 20          |
| Cobalt     |                          |      |                   |           |            |             |
| Copper     |                          |      |                   |           |            |             |
| Iron       |                          |      |                   |           |            |             |
| Lead       | 4.4                      | 11.5 | 4.98              | 142.7N(a) | 17.0       | 20          |
| Magnesium  |                          |      |                   |           |            |             |
| Manganese  |                          |      |                   |           |            |             |
| Molybdenum |                          |      |                   |           |            |             |
| Nickel     |                          |      |                   |           |            |             |
| Potassium  |                          |      |                   |           |            |             |
| Selenium   | 0.52                     | 6.4  | 4.98              | 118.2     | 22.6 (b)   | 20          |
| Silicon    |                          |      |                   |           |            |             |
| Silver     | 0.0                      | 5.6  | 4.98              | 112.6     | 43.5 (b)   | 20          |
| Sodium     |                          |      |                   |           |            |             |
| Strontium  |                          |      |                   |           |            |             |
| Thallium   |                          |      |                   |           |            |             |
| Tin        |                          |      |                   |           |            |             |
| Titanium   |                          |      |                   |           |            |             |
| Vanadium   |                          |      |                   |           |            |             |
| Zinc       |                          |      |                   |           |            |             |

Associated samples MP7833: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

(b) High RPD indicates possible matrix interference and/or sample nonhomogeneity.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7833  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/14/14

| Metal      | BSP<br>Result | SpikeLot<br>MPIR5 | % Rec | QC<br>Limits |
|------------|---------------|-------------------|-------|--------------|
| Aluminum   |               |                   |       |              |
| Antimony   |               |                   |       |              |
| Arsenic    | 40.0          | 50                | 80.0  | 80-120       |
| Barium     | 44.7          | 50                | 89.4  | 80-120       |
| Beryllium  |               |                   |       |              |
| Boron      |               |                   |       |              |
| Cadmium    | 41.4          | 50                | 82.8  | 80-120       |
| Calcium    |               |                   |       |              |
| Chromium   | 45.3          | 50                | 90.6  | 80-120       |
| Cobalt     |               |                   |       |              |
| Copper     |               |                   |       |              |
| Iron       |               |                   |       |              |
| Lead       | 43.0          | 50                | 86.0  | 80-120       |
| Magnesium  |               |                   |       |              |
| Manganese  |               |                   |       |              |
| Molybdenum |               |                   |       |              |
| Nickel     |               |                   |       |              |
| Potassium  |               |                   |       |              |
| Selenium   | 40.8          | 50                | 81.6  | 80-120       |
| Silicon    |               |                   |       |              |
| Silver     | 41.1          | 50                | 82.2  | 80-120       |
| Sodium     |               |                   |       |              |
| Strontium  |               |                   |       |              |
| Thallium   |               |                   |       |              |
| Tin        |               |                   |       |              |
| Titanium   |               |                   |       |              |
| Vanadium   |               |                   |       |              |
| Zinc       |               |                   |       |              |

Associated samples MP7833: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Traning Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7833  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/14/14

| Metal      | C33940-6<br>Original SDL 10:50%DIF |      | QC<br>Limits |      |
|------------|------------------------------------|------|--------------|------|
| Aluminum   |                                    |      |              |      |
| Antimony   |                                    |      |              |      |
| Arsenic    | 551                                | 282  | 48.8* (a)    | 0-10 |
| Barium     | 324                                | 299  | 7.8          | 0-10 |
| Beryllium  |                                    |      |              |      |
| Boron      |                                    |      |              |      |
| Cadmium    | 13.1                               | 86.7 | 561.8 (b)    | 0-10 |
| Calcium    |                                    |      |              |      |
| Chromium   | 549                                | 180  | 67.2* (a)    | 0-10 |
| Cobalt     |                                    |      |              |      |
| Copper     |                                    |      |              |      |
| Iron       |                                    |      |              |      |
| Lead       | 444                                | 380  | 14.5* (a)    | 0-10 |
| Magnesium  |                                    |      |              |      |
| Manganese  |                                    |      |              |      |
| Molybdenum |                                    |      |              |      |
| Nickel     |                                    |      |              |      |
| Potassium  |                                    |      |              |      |
| Selenium   | 52.4                               | 0.00 | 100.0 (b)    | 0-10 |
| Silicon    |                                    |      |              |      |
| Silver     | 0.00                               | 0.00 | NC           | 0-10 |
| Sodium     |                                    |      |              |      |
| Strontium  |                                    |      |              |      |
| Thallium   |                                    |      |              |      |
| Tin        |                                    |      |              |      |
| Titanium   |                                    |      |              |      |
| Vanadium   |                                    |      |              |      |
| Zinc       |                                    |      |              |      |

Associated samples MP7833: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
Matrix Type: SOLID

Methods: SW846 7471A  
Units: mg/kg

Prep Date: 05/13/14

| Metal   | RL    | IDL    | MDL   | MB     |        |
|---------|-------|--------|-------|--------|--------|
|         |       |        |       | raw    | final  |
| Mercury | 0.042 | .00035 | .0043 | 0.0052 | <0.042 |

Associated samples MP7835: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.3.1  
9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | C33951-4    |        | Spikelot |        | QC     |
|---------|-------------|--------|----------|--------|--------|
|         | Original MS | HGFWS1 | % Rec    | Limits |        |
| Mercury | 0.047       | 0.35   | 0.313    | 97.0   | 75-125 |

Associated samples MP7835: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.3.2  
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | C33951-4     |      | SpikeLot |       | MSD | QC    |
|---------|--------------|------|----------|-------|-----|-------|
|         | Original MSD |      | HGPWS1   | % Rec | RPD | Limit |
| Mercury | 0.047        | 0.36 | 0.308    | 101.7 | 2.8 | 20    |

Associated samples MP7835: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
 (+) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.3.2  
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | BSP    | Spikelot | QC    |        |
|---------|--------|----------|-------|--------|
|         | Result | HGPWS1   | % Rec | Limits |
| Mercury | 0.16   | 0.167    | 96.0  | 80-120 |

Associated samples MP7835: C33940-1, C33940-2, C33940-3, C33940-4, C33940-5

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.3.3  
 9

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33940  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7836  
Matrix Type: SOLID

Methods: SW846 7471A  
Units: mg/kg

Prep Date: 05/13/14

| Metal   | RL    | IDL    | MDL   | MB     |        |
|---------|-------|--------|-------|--------|--------|
|         |       |        |       | raw    | final  |
| Mercury | 0.042 | .00035 | .0043 | 0.0053 | <0.042 |

Associated samples MP7836: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

9.4.1  
9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7836  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | C33940-6    |      | SpikeLot |       | QC     |  |
|---------|-------------|------|----------|-------|--------|--|
|         | Original MS |      | HGPWS1   | % Rec | Limits |  |
| Mercury | 0.0051      | 0.31 | 0.294    | 103.7 | 75-125 |  |

Associated samples MP7836: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.4.2  
9

# MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7836  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date:

05/13/14

| Metal   | C33940-6     |      | Spikelet |       | MSD | QC    |
|---------|--------------|------|----------|-------|-----|-------|
|         | Original MSD |      | HGPWS1   | % Rec | RPD | Limit |
| Mercury | 0.0051       | 0.33 | 0.299    | 108.8 | 6.3 | 20    |

Associated samples MP7836: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.4.2  
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33940  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7836  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | BSP    | Spikelot | QC    |        |
|---------|--------|----------|-------|--------|
|         | Result | HGPWS1   | % Rec | Limits |
| Mercury | 0.16   | 0.167    | 96.0  | 80-120 |

Associated samples MP7836: C33940-6, C33940-7, C33940-8, C33940-9, C33940-10, C33940-11, C33940-12, C33940-13, C33940-14, C33940-15, C33940-16, C33940-17, C33940-18, C33940-19, C33940-20, C33940-21, C33940-22

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.4.3  
9



Reissue #1  
06/02/14

Technical Report for

EnviroServices and Training Center

Kahului Harbor Parcel-Maui, HI

KAHULUI HARBOR PARCEL

Accutest Job Number: C33923

Sampling Date: 05/05/14

Report to:

EnviroServices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814  
sharla@gotoetc.com

ATTN: Sharla Nakashima

Total number of pages in report: **208**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy  
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: OR (CA300006) CA (08258CA) AZ (AZ0762) DoD ELAP (L-A-B L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.





June 2, 2014

Sharla Nakashima  
Enviroservices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814

**Re: Accutest Job # C33923 Reissue**

Dear Ms. Nakashima,

The final report for Accutest Job # **C33923**, original report dated 5/21/2014, has been edited to reflect requested corrections.

Additional results for 8015 Oil Range Organics {TPH (>C28-C40)} have been added for all samples as per your request. Revised result pages and associated QC have been incorporated into this revised report.

Please contact us at 408-588-0200 if we can be of further assistance in this matter, or if you have any questions regarding this data report.

Sincerely,

Accutest Laboratories

# Table of Contents

Sections:

1  
2  
3  
4  
5  
6  
7  
8  
9

-1-

|                                                                  |            |
|------------------------------------------------------------------|------------|
| <b>Section 1: Sample Summary .....</b>                           | <b>5</b>   |
| <b>Section 2: Summary of Hits .....</b>                          | <b>7</b>   |
| <b>Section 3: Sample Results .....</b>                           | <b>17</b>  |
| <b>3.1: C33923-1: 2003.SS1 .....</b>                             | <b>18</b>  |
| <b>3.2: C33923-2: 2003.SS2 .....</b>                             | <b>22</b>  |
| <b>3.3: C33923-3: 2003.SS3 .....</b>                             | <b>26</b>  |
| <b>3.4: C33923-4: 2003.SS4 .....</b>                             | <b>30</b>  |
| <b>3.5: C33923-5: 2003.SS5 .....</b>                             | <b>34</b>  |
| <b>3.6: C33923-6: 2003.SS6 .....</b>                             | <b>38</b>  |
| <b>3.7: C33923-7: 2003.SS7 .....</b>                             | <b>42</b>  |
| <b>3.8: C33923-8: 2003.SS8 .....</b>                             | <b>46</b>  |
| <b>3.9: C33923-9: 2003.SS9 .....</b>                             | <b>50</b>  |
| <b>3.10: C33923-10: 2003.SS10 .....</b>                          | <b>54</b>  |
| <b>3.11: C33923-11: 2003.SS11 .....</b>                          | <b>58</b>  |
| <b>3.12: C33923-12: 2003.SS12 .....</b>                          | <b>62</b>  |
| <b>3.13: C33923-13: 2003.SS13 .....</b>                          | <b>66</b>  |
| <b>3.14: C33923-14: 2003.SS14 .....</b>                          | <b>70</b>  |
| <b>3.15: C33923-15: 2003.SS15 .....</b>                          | <b>74</b>  |
| <b>3.16: C33923-16: 2003.B2.42-54 .....</b>                      | <b>78</b>  |
| <b>3.17: C33923-17: 2003.B7.48-60 .....</b>                      | <b>84</b>  |
| <b>3.18: C33923-18: 2003.B9.48-60 .....</b>                      | <b>90</b>  |
| <b>3.19: C33923-19: 2003.B14.48-60 .....</b>                     | <b>96</b>  |
| <b>3.20: C33923-20: 2003.B15.48-60 .....</b>                     | <b>102</b> |
| <b>3.21: C33923-21: 2003.B16.48-60 .....</b>                     | <b>108</b> |
| <b>3.22: C33923-22: 2003.B17.48-60 .....</b>                     | <b>114</b> |
| <b>3.23: C33923-23: 2003.B18.48-60 .....</b>                     | <b>120</b> |
| <b>3.24: C33923-24: 2003.B19.48-60 .....</b>                     | <b>126</b> |
| <b>3.25: C33923-25: 2003.B29.48-60 .....</b>                     | <b>132</b> |
| <b>3.26: C33923-26: 2003.B30.48-60 .....</b>                     | <b>138</b> |
| <b>Section 4: Misc. Forms .....</b>                              | <b>144</b> |
| <b>4.1: Chain of Custody .....</b>                               | <b>145</b> |
| <b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>      | <b>150</b> |
| <b>5.1: Method Blank Summary .....</b>                           | <b>151</b> |
| <b>5.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>154</b> |
| <b>5.3: Laboratory Control Sample Summary .....</b>              | <b>157</b> |
| <b>5.4: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>160</b> |
| <b>Section 6: GC/MS Semi-volatiles - QC Data Summaries .....</b> | <b>163</b> |
| <b>6.1: Method Blank Summary .....</b>                           | <b>164</b> |
| <b>6.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>166</b> |
| <b>6.3: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>168</b> |
| <b>Section 7: GC Volatiles - QC Data Summaries .....</b>         | <b>170</b> |
| <b>7.1: Method Blank Summary .....</b>                           | <b>171</b> |

# Table of Contents

Sections:



-2-

|                                                               |            |
|---------------------------------------------------------------|------------|
| 7.2: Blank Spike/Blank Spike Duplicate Summary .....          | 172        |
| 7.3: Matrix Spike/Matrix Spike Duplicate Summary .....        | 173        |
| <b>Section 8: GC Semi-volatiles - QC Data Summaries .....</b> | <b>174</b> |
| 8.1: Method Blank Summary .....                               | 175        |
| 8.2: Blank Spike/Blank Spike Duplicate Summary .....          | 180        |
| 8.3: Matrix Spike/Matrix Spike Duplicate Summary .....        | 185        |
| <b>Section 9: Metals Analysis - QC Data Summaries .....</b>   | <b>190</b> |
| 9.1: Prep QC MP7824: As,Ba,Cd,Cr,Pb,Se,Ag .....               | 191        |
| 9.2: Prep QC MP7835: Hg .....                                 | 196        |
| 9.3: Prep QC MP7841: Hg .....                                 | 200        |
| 9.4: Prep QC MP7843: As,Ba,Cd,Cr,Pb,Se,Ag .....               | 204        |



## Sample Summary

EnviroServices and Training Center

Job No: C33923

Kahului Harbor Parcel-Maui, HI

Project No: KAHULUI HARBOR PARCEL

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|----------|----------|-------------|------|------------------|
| C33923-1      | 05/05/14       | 00:00 SN | 05/08/14 | SO          | Soil | 2003.SS1         |
| C33923-2      | 05/05/14       | 08:40 SN | 05/08/14 | SO          | Soil | 2003.SS2         |
| C33923-3      | 05/05/14       | 08:40 SN | 05/08/14 | SO          | Soil | 2003.SS3         |
| C33923-4      | 05/05/14       | 08:25 SN | 05/08/14 | SO          | Soil | 2003.SS4         |
| C33923-5      | 05/05/14       | 08:55 SN | 05/08/14 | SO          | Soil | 2003.SS5         |
| C33923-6      | 05/05/14       | 09:25 SN | 05/08/14 | SO          | Soil | 2003.SS6         |
| C33923-7      | 05/05/14       | 09:25 SN | 05/08/14 | SO          | Soil | 2003.SS7         |
| C33923-8      | 05/05/14       | 10:30 SN | 05/08/14 | SO          | Soil | 2003.SS8         |
| C33923-9      | 05/05/14       | 09:50 SN | 05/08/14 | SO          | Soil | 2003.SS9         |
| C33923-10     | 05/05/14       | 09:50 SN | 05/08/14 | SO          | Soil | 2003.SS10        |
| C33923-11     | 05/05/14       | 10:10 SN | 05/08/14 | SO          | Soil | 2003.SS11        |
| C33923-12     | 05/05/14       | 10:30 SN | 05/08/14 | SO          | Soil | 2003.SS12        |
| C33923-13     | 05/05/14       | 11:20 SN | 05/08/14 | SO          | Soil | 2003.SS13        |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



**Sample Summary**

(continued)

EnviroServices and Training Center

Job No: C33923

Kahului Harbor Parcel-Maui, HI

Project No: KAHULUI HARBOR PARCEL

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|----------|----------|-------------|------|------------------|
| C33923-14     | 05/05/14       | 11:10 SN | 05/08/14 | SO          | Soil | 2003.SS14        |
| C33923-15     | 05/05/14       | 11:00 SN | 05/08/14 | SO          | Soil | 2003.SS15        |
| C33923-16     | 05/05/14       | 11:45 SN | 05/08/14 | SO          | Soil | 2003.B2.42-54    |
| C33923-17     | 05/05/14       | 15:45 SN | 05/08/14 | SO          | Soil | 2003.B7.48-60    |
| C33923-18     | 05/05/14       | 14:40 SN | 05/08/14 | SO          | Soil | 2003.B9.48-60    |
| C33923-19     | 05/05/14       | 16:00 SN | 05/08/14 | SO          | Soil | 2003.B14.48-60   |
| C33923-20     | 05/05/14       | 16:45 SN | 05/08/14 | SO          | Soil | 2003.B15.48-60   |
| C33923-21     | 05/05/14       | 10:10 SN | 05/08/14 | SO          | Soil | 2003.B16.48-60   |
| C33923-22     | 05/05/14       | 10:30 SN | 05/08/14 | SO          | Soil | 2003.B17.48-60   |
| C33923-23     | 05/05/14       | 11:20 SN | 05/08/14 | SO          | Soil | 2003.B18.48-60   |
| C33923-24     | 05/05/14       | 11:10 SN | 05/08/14 | SO          | Soil | 2003.B19.48-60   |
| C33923-25     | 05/05/14       | 11:00 SN | 05/08/14 | SO          | Soil | 2003.B29.48-60   |
| C33923-26     | 05/05/14       | 11:45 SN | 05/08/14 | SO          | Soil | 2003.B30.48-60   |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Summary of Hits

Page 1 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte            | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method             |
|-------------------------------------|------------------|-----------------|-------|-----|-------|--------------------|
| <b>C33923-1</b>                     |                  | <b>2003.SS1</b> |       |     |       |                    |
| Benzo(a)anthracene <sup>a</sup>     |                  | 69.7            | 50    | 12  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         |                  | 98.3            | 50    | 8.5 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   |                  | 189             | 50    | 10  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   |                  | 90.0            | 50    | 11  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   |                  | 101             | 50    | 11  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               |                  | 157             | 50    | 10  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> |                  | 17.9 J          | 50    | 14  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           |                  | 284             | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> |                  | 92.8            | 50    | 12  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           |                  | 84.7 J          | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 |                  | 218 J           | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       |                  | 50.8            | 50    | 12  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     |                  | 273             | 100   | 25  | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                |                  | 7.4             | 2.0   |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 |                  | 90.5            | 20    |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                |                  | 18.8            | 1.0   |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               |                  | 126             | 1.0   |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   |                  | 35.6            | 2.0   |     | mg/kg | SW846 6010B        |
| Mercury                             |                  | 0.080           | 0.040 |     | mg/kg | SW846 7471A        |
| <b>C33923-2</b>                     |                  | <b>2003.SS2</b> |       |     |       |                    |
| Benzo(b)fluoranthene <sup>a</sup>   |                  | 298 J           | 1300  | 270 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   |                  | 325 J           | 1300  | 290 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               |                  | 277 J           | 1300  | 270 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       |                  | 184             | 170   | 42  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     |                  | 1550            | 330   | 83  | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                |                  | 11.1            | 2.0   |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 |                  | 61.4            | 20    |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                |                  | 1.7             | 1.0   |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               |                  | 26.5            | 1.0   |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   |                  | 94.6            | 2.0   |     | mg/kg | SW846 6010B        |
| <b>C33923-3</b>                     |                  | <b>2003.SS3</b> |       |     |       |                    |
| Benzo(a)anthracene <sup>a</sup>     |                  | 89.5 J          | 100   | 25  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         |                  | 117             | 100   | 17  | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   |                  | 176             | 100   | 20  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   |                  | 132             | 100   | 22  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   |                  | 109             | 100   | 23  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               |                  | 157             | 100   | 20  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           |                  | 250 J           | 500   | 50  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> |                  | 98.1 J          | 100   | 25  | ug/kg | SW846 8270C BY SIM |

## Summary of Hits

Page 2 of 10

Job Number: C33923

Account: EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

Collected: 05/05/14

2

| Lab Sample ID<br>Analyte  | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method             |
|---------------------------|------------------|-----------------|-------|-----|-------|--------------------|
| Phenanthrene <sup>a</sup> |                  | 85.9 J          | 500   | 50  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>       |                  | 237 J           | 500   | 50  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)             |                  | 795             | 500   | 120 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)           |                  | 3890            | 990   | 250 | mg/kg | SW846 8015B M      |
| Arsenic                   |                  | 8.4             | 2.0   |     | mg/kg | SW846 6010B        |
| Barium                    |                  | 107             | 20    |     | mg/kg | SW846 6010B        |
| Cadmium                   |                  | 2.6             | 0.99  |     | mg/kg | SW846 6010B        |
| Chromium                  |                  | 31.0            | 0.99  |     | mg/kg | SW846 6010B        |
| Lead                      |                  | 116             | 2.0   |     | mg/kg | SW846 6010B        |
| Mercury                   |                  | 0.058           | 0.036 |     | mg/kg | SW846 7471A        |

### C33923-4 2003.SS4

|                                     |        |     |     |       |                    |
|-------------------------------------|--------|-----|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 37.7   | 20  | 5.0 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 70.8   | 20  | 3.4 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 115    | 20  | 4.0 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 76.2   | 20  | 4.4 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 81.3   | 20  | 4.6 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 108    | 20  | 4.0 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 8.6 J  | 20  | 5.5 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 195    | 99  | 9.9 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 69.6   | 20  | 5.0 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 77.9 J | 99  | 9.9 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 160    | 99  | 9.9 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 115    | 66  | 17  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 471    | 130 | 33  | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 14.3   | 2.0 |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 65.4   | 20  |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 1.0    | 1.0 |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 40.1   | 1.0 |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 64.9   | 2.0 |     | mg/kg | SW846 6010B        |
| Silver <sup>b</sup>                 | 1.6    | 1.0 |     | mg/kg | SW846 6010B        |

### C33923-5 2003.SS5

|                                     |        |     |     |       |                    |
|-------------------------------------|--------|-----|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 63.9   | 50  | 12  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 100    | 50  | 8.5 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 167    | 50  | 10  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 110    | 50  | 11  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 95.2   | 50  | 11  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 143    | 50  | 10  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 16.5 J | 50  | 14  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 256    | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 108    | 50  | 12  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 100 J  | 250 | 25  | ug/kg | SW846 8270C BY SIM |



## Summary of Hits

Page 3 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL   | MDL | Units | Method             |
|--------------------------|------------------|-----------------|------|-----|-------|--------------------|
| Pyrene <sup>a</sup>      |                  | 214 J           | 250  | 25  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)            |                  | 519             | 83   | 21  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)          |                  | 845             | 170  | 42  | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>     |                  | 8.0             | 2.0  |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>      |                  | 68.2            | 20   |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>     |                  | 1.1             | 0.99 |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>    |                  | 27.9            | 0.99 |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>        |                  | 76.7            | 2.0  |     | mg/kg | SW846 6010B        |

### C33923-6 2003.SS6

|                                     |       |     |     |       |                    |
|-------------------------------------|-------|-----|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 125 J | 170 | 42  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 111 J | 170 | 28  | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 292   | 170 | 33  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 119 J | 170 | 37  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 122 J | 170 | 38  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 304   | 170 | 33  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 495 J | 830 | 83  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 112 J | 170 | 42  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 134 J | 830 | 83  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 417 J | 830 | 83  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 975   | 410 | 100 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 5010  | 830 | 210 | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 18.8  | 2.0 |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 64.8  | 20  |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 2.0   | 1.0 |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 50.6  | 1.0 |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 76.5  | 2.0 |     | mg/kg | SW846 6010B        |
| Silver <sup>b</sup>                 | 1.0   | 1.0 |     | mg/kg | SW846 6010B        |

### C33923-7 2003.SS7

|                                     |        |     |    |       |                    |
|-------------------------------------|--------|-----|----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 133    | 99  | 25 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 192    | 99  | 17 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 273    | 99  | 20 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 199    | 99  | 22 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 229    | 99  | 23 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 260    | 99  | 20 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 39.1 J | 99  | 28 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 407 J  | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 189    | 99  | 25 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 165 J  | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 361 J  | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 332    | 83  | 21 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 986    | 170 | 41 | mg/kg | SW846 8015B M      |



## Summary of Hits

Page 4 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL   | MDL | Units | Method      |
|--------------------------|------------------|-----------------|------|-----|-------|-------------|
| Arsenic <sup>b</sup>     |                  | 13.3            | 2.0  |     | mg/kg | SW846 6010B |
| Barium <sup>b</sup>      |                  | 66.2            | 20   |     | mg/kg | SW846 6010B |
| Cadmium <sup>b</sup>     |                  | 1.5             | 0.99 |     | mg/kg | SW846 6010B |
| Chromium <sup>b</sup>    |                  | 35.2            | 0.99 |     | mg/kg | SW846 6010B |
| Lead <sup>b</sup>        |                  | 73.9            | 2.0  |     | mg/kg | SW846 6010B |

C33923-8 2003.SS8

|                                     |        |       |     |       |                    |
|-------------------------------------|--------|-------|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 85.3   | 50    | 12  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 135    | 50    | 8.5 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 177    | 50    | 10  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 143    | 50    | 11  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 168    | 50    | 11  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 215    | 50    | 10  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 17.7 J | 50    | 14  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 309    | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 134    | 50    | 12  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 222 J  | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 328    | 250   | 25  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 687    | 83    | 21  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 1090   | 170   | 42  | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 10     | 2.0   |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 55.6   | 20    |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 2.5    | 1.0   |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 34.0   | 1.0   |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 80.5   | 2.0   |     | mg/kg | SW846 6010B        |
| Mercury                             | 0.068  | 0.041 |     | mg/kg | SW846 7471A        |

C33923-9 2003.SS9

|                                     |        |     |     |       |                    |
|-------------------------------------|--------|-----|-----|-------|--------------------|
| Acenaphthene <sup>a</sup>           | 27.7 J | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Acenaphthylene <sup>a</sup>         | 31.1 J | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Anthracene <sup>a</sup>             | 26.1 J | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)anthracene <sup>a</sup>     | 457    | 50  | 12  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 680    | 50  | 8.5 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 1150   | 50  | 10  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 601    | 50  | 11  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 694    | 50  | 11  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 1040   | 50  | 10  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 92.9   | 50  | 14  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 2000   | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 624    | 50  | 12  | ug/kg | SW846 8270C BY SIM |
| 1-Methylnaphthalene <sup>a</sup>    | 67.3 J | 250 | 50  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 1420   | 250 | 25  | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 1640   | 250 | 25  | ug/kg | SW846 8270C BY SIM |

## Summary of Hits

Page 5 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method        |
|--------------------------|------------------|-----------------|-------|-----|-------|---------------|
| TPH (C10-C28)            |                  | 266 J           | 330   | 83  | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 1940            | 670   | 170 | mg/kg | SW846 8015B M |
| Arsenic <sup>b</sup>     |                  | 12.5            | 2.0   |     | mg/kg | SW846 6010B   |
| Barium <sup>b</sup>      |                  | 93.2            | 20    |     | mg/kg | SW846 6010B   |
| Cadmium <sup>b</sup>     |                  | 1.7             | 0.99  |     | mg/kg | SW846 6010B   |
| Chromium <sup>b</sup>    |                  | 45.3            | 0.99  |     | mg/kg | SW846 6010B   |
| Lead <sup>b</sup>        |                  | 113             | 2.0   |     | mg/kg | SW846 6010B   |
| Mercury                  |                  | 0.15            | 0.042 |     | mg/kg | SW846 7471A   |

### C33923-10 2003.SS10

|                                     |        |       |    |       |                    |
|-------------------------------------|--------|-------|----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 333    | 170   | 42 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 495    | 170   | 28 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 640    | 170   | 33 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 447    | 170   | 37 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 613    | 170   | 38 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 645    | 170   | 33 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 64.7 J | 170   | 47 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 1330   | 830   | 83 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 407    | 170   | 42 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 748 J  | 830   | 83 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 1080   | 830   | 83 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 139    | 83    | 21 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 861    | 170   | 41 | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 10.5   | 2.0   |    | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 78.8   | 20    |    | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 1.8    | 1.0   |    | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 59.5   | 1.0   |    | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 102    | 2.0   |    | mg/kg | SW846 6010B        |
| Mercury                             | 0.15   | 0.041 |    | mg/kg | SW846 7471A        |
| Silver <sup>b</sup>                 | 1.4    | 1.0   |    | mg/kg | SW846 6010B        |

### C33923-11 2003.SS11

|                                     |        |      |     |       |                    |
|-------------------------------------|--------|------|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 624    | 330  | 83  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 893    | 330  | 57  | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 1590   | 330  | 67  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 749    | 330  | 73  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 759    | 330  | 77  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 1290   | 330  | 67  | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 133 J  | 330  | 93  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 2570   | 1700 | 170 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 694    | 330  | 83  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 1420 J | 1700 | 170 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 2150   | 1700 | 170 | ug/kg | SW846 8270C BY SIM |



## Summary of Hits

Page 6 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method        |
|--------------------------|------------------|-----------------|-------|-----|-------|---------------|
| TPH (C10-C28)            |                  | 317             | 160   | 41  | mg/kg | SW846 8015B M |
| TPH (> C28-C40)          |                  | 1730            | 330   | 82  | mg/kg | SW846 8015B M |
| Arsenic <sup>b</sup>     |                  | 52.6            | 2.0   |     | mg/kg | SW846 6010B   |
| Barium <sup>b</sup>      |                  | 134             | 20    |     | mg/kg | SW846 6010B   |
| Cadmium <sup>b</sup>     |                  | 4.6             | 1.0   |     | mg/kg | SW846 6010B   |
| Chromium <sup>b</sup>    |                  | 55.6            | 1.0   |     | mg/kg | SW846 6010B   |
| Lead <sup>b</sup>        |                  | 1400            | 2.0   |     | mg/kg | SW846 6010B   |
| Mercury                  |                  | 0.047           | 0.036 |     | mg/kg | SW846 7471A   |

### C33923-12 2003.SS12

|                                     |       |       |     |       |                    |
|-------------------------------------|-------|-------|-----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 247 J | 330   | 83  | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 311 J | 330   | 56  | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 486   | 330   | 66  | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 391   | 330   | 73  | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 322 J | 330   | 76  | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 433   | 330   | 66  | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 646 J | 1700  | 170 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 294 J | 330   | 83  | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 372 J | 1700  | 170 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 733 J | 1700  | 170 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 3660  | 660   | 170 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 8470  | 1300  | 330 | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 24.7  | 2.0   |     | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 134   | 20    |     | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 3.2   | 1.0   |     | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 50.2  | 1.0   |     | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 200   | 2.0   |     | mg/kg | SW846 6010B        |
| Mercury                             | 0.077 | 0.041 |     | mg/kg | SW846 7471A        |
| Silver <sup>b</sup>                 | 2.3   | 1.0   |     | mg/kg | SW846 6010B        |

### C33923-13 2003.SS13

|                                     |      |     |    |       |                    |
|-------------------------------------|------|-----|----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 440  | 100 | 25 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 660  | 100 | 17 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 849  | 100 | 20 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 598  | 100 | 22 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 717  | 100 | 23 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 836  | 100 | 20 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 133  | 100 | 28 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 1480 | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 471  | 100 | 25 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 734  | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 1340 | 500 | 50 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 246  | 83  | 21 | mg/kg | SW846 8015B M      |

## Summary of Hits

Page 7 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method        |
|--------------------------|------------------|-----------------|-------|-----|-------|---------------|
| TPH (> C28-C40)          |                  | 903             | 170   | 41  | mg/kg | SW846 8015B M |
| Arsenic <sup>b</sup>     |                  | 11.9            | 2.0   |     | mg/kg | SW846 6010B   |
| Barium <sup>b</sup>      |                  | 118             | 20    |     | mg/kg | SW846 6010B   |
| Cadmium <sup>b</sup>     |                  | 1.3             | 1.0   |     | mg/kg | SW846 6010B   |
| Chromium <sup>b</sup>    |                  | 36.0            | 1.0   |     | mg/kg | SW846 6010B   |
| Lead <sup>b</sup>        |                  | 121             | 2.0   |     | mg/kg | SW846 6010B   |
| Mercury                  |                  | 0.16            | 0.037 |     | mg/kg | SW846 7471A   |
| Silver <sup>b</sup>      |                  | 1.5             | 1.0   |     | mg/kg | SW846 6010B   |

### C33923-14 2003.SS14

|                                     |       |       |    |       |                    |
|-------------------------------------|-------|-------|----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 538   | 100   | 25 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 749   | 100   | 17 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 1180  | 100   | 20 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 547   | 100   | 22 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 656   | 100   | 23 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 917   | 100   | 20 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 104   | 100   | 28 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 1680  | 500   | 50 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 583   | 100   | 25 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 793   | 500   | 50 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 1480  | 500   | 50 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 77.8  | 66    | 17 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     | 642   | 130   | 33 | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                | 17.7  | 2.0   |    | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 | 107   | 20    |    | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                | 1.4   | 1.0   |    | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               | 47.4  | 1.0   |    | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   | 164   | 2.0   |    | mg/kg | SW846 6010B        |
| Mercury                             | 0.085 | 0.039 |    | mg/kg | SW846 7471A        |

### C33923-15 2003.SS15

|                                     |       |     |    |       |                    |
|-------------------------------------|-------|-----|----|-------|--------------------|
| Benzo(a)anthracene <sup>a</sup>     | 527   | 170 | 41 | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         | 806   | 170 | 28 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   | 1340  | 170 | 33 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   | 599   | 170 | 36 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   | 661   | 170 | 38 | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               | 1040  | 170 | 33 | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> | 115 J | 170 | 46 | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           | 1720  | 830 | 83 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 615   | 170 | 41 | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           | 857   | 830 | 83 | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>a</sup>                 | 1640  | 830 | 83 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       | 127   | 66  | 17 | mg/kg | SW846 8015B M      |



## Summary of Hits

Page 8 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte            | Client Sample ID | Result/<br>Qual | RL    | MDL  | Units | Method             |
|-------------------------------------|------------------|-----------------|-------|------|-------|--------------------|
| TPH (> C28-C40)                     |                  | 744             | 130   | 33   | mg/kg | SW846 8015B M      |
| Arsenic <sup>b</sup>                |                  | 19.6            | 2.0   |      | mg/kg | SW846 6010B        |
| Barium <sup>b</sup>                 |                  | 254             | 20    |      | mg/kg | SW846 6010B        |
| Cadmium <sup>b</sup>                |                  | 1.6             | 0.99  |      | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               |                  | 54.6            | 0.99  |      | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   |                  | 197             | 2.0   |      | mg/kg | SW846 6010B        |
| Mercury                             |                  | 0.19            | 0.037 |      | mg/kg | SW846 7471A        |
| Silver <sup>b</sup>                 |                  | 1.2             | 0.99  |      | mg/kg | SW846 6010B        |
| <b>C33923-16 2003.B2.42-54</b>      |                  |                 |       |      |       |                    |
| Benzo(g,h,i)perylene <sup>c</sup>   |                  | 0.87 J          | 3.3   | 0.73 | ug/kg | SW846 8270C BY SIM |
| Chromium <sup>b</sup>               |                  | 2.9             | 0.50  |      | mg/kg | SW846 6010B        |
| <b>C33923-17 2003.B7.48-60</b>      |                  |                 |       |      |       |                    |
| Acenaphthene <sup>d</sup>           |                  | 227 J           | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Acenaphthylene <sup>d</sup>         |                  | 66.3 J          | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Anthracene <sup>d</sup>             |                  | 672             | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Benzo(a)anthracene <sup>d</sup>     |                  | 3710            | 99    | 25   | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>d</sup>         |                  | 3470            | 99    | 17   | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>d</sup>   |                  | 3800            | 99    | 20   | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>d</sup>   |                  | 1660            | 99    | 22   | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>d</sup>   |                  | 3030            | 99    | 23   | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>d</sup>               |                  | 4340            | 99    | 20   | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>d</sup> |                  | 335             | 99    | 28   | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>d</sup>           |                  | 9580            | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Fluorene <sup>d</sup>               |                  | 291 J           | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>d</sup> |                  | 2240            | 99    | 25   | ug/kg | SW846 8270C BY SIM |
| 1-Methylnaphthalene <sup>d</sup>    |                  | 182 J           | 500   | 99   | ug/kg | SW846 8270C BY SIM |
| 2-Methylnaphthalene <sup>d</sup>    |                  | 107 J           | 500   | 99   | ug/kg | SW846 8270C BY SIM |
| Naphthalene <sup>d</sup>            |                  | 101 J           | 500   | 99   | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>d</sup>           |                  | 5680            | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| Pyrene <sup>d</sup>                 |                  | 7670            | 500   | 50   | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       |                  | 239             | 50    | 12   | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     |                  | 409             | 99    | 25   | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>               |                  | 3.3             | 0.50  |      | mg/kg | SW846 6010B        |
| <b>C33923-18 2003.B9.48-60</b>      |                  |                 |       |      |       |                    |
| Arsenic <sup>b</sup>                |                  | 5.1             | 4.0   |      | mg/kg | SW846 6010B        |
| Chromium <sup>b</sup>               |                  | 3.3             | 0.50  |      | mg/kg | SW846 6010B        |

## Summary of Hits

Page 9 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID                       | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units | Method             |
|-------------------------------------|------------------|-----------------|------|------|-------|--------------------|
| <b>C33923-19 2003.B14.48-60</b>     |                  |                 |      |      |       |                    |
| TPH (> C28-C40)                     |                  | 2.03 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>               |                  | 2.5             | 0.49 |      | mg/kg | SW846 6010B        |
| <b>C33923-20 2003.B15.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(a)pyrene                      |                  | 0.96 J          | 3.3  | 0.56 | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene                |                  | 0.90 J          | 3.3  | 0.66 | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene                |                  | 5.2             | 3.3  | 0.73 | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene                |                  | 0.86 J          | 3.3  | 0.76 | ug/kg | SW846 8270C BY SIM |
| Chrysene                            |                  | 1.0 J           | 3.3  | 0.66 | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene              |                  | 1.4 J           | 3.3  | 0.83 | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       |                  | 20.8            | 3.3  | 0.83 | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     |                  | 33.6            | 6.7  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>               |                  | 3.2             | 0.50 |      | mg/kg | SW846 6010B        |
| Lead <sup>b</sup>                   |                  | 17.0            | 4.0  |      | mg/kg | SW846 6010B        |
| <b>C33923-21 2003.B16.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(g,h,i)perylene <sup>a</sup>   |                  | 241 J           | 660  | 150  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> |                  | 212 J           | 660  | 170  | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)                       |                  | 2350            | 830  | 210  | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)                     |                  | 3440            | 1700 | 420  | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>               |                  | 2.6             | 0.49 |      | mg/kg | SW846 6010B        |
| <b>C33923-22 2003.B17.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(g,h,i)perylene <sup>c</sup>   |                  | 3.6 J           | 13   | 2.9  | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>c</sup> |                  | 3.4 J           | 13   | 3.3  | ug/kg | SW846 8270C BY SIM |
| TPH (> C28-C40)                     |                  | 2.67 J          | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>               |                  | 2.2             | 0.50 |      | mg/kg | SW846 6010B        |
| <b>C33923-23 2003.B18.48-60</b>     |                  |                 |      |      |       |                    |
| Benzo(a)anthracene <sup>a</sup>     |                  | 215             | 100  | 25   | ug/kg | SW846 8270C BY SIM |
| Benzo(a)pyrene <sup>a</sup>         |                  | 295             | 100  | 17   | ug/kg | SW846 8270C BY SIM |
| Benzo(b)fluoranthene <sup>a</sup>   |                  | 327             | 100  | 20   | ug/kg | SW846 8270C BY SIM |
| Benzo(g,h,i)perylene <sup>a</sup>   |                  | 298             | 100  | 22   | ug/kg | SW846 8270C BY SIM |
| Benzo(k)fluoranthene <sup>a</sup>   |                  | 303             | 100  | 23   | ug/kg | SW846 8270C BY SIM |
| Chrysene <sup>a</sup>               |                  | 359             | 100  | 20   | ug/kg | SW846 8270C BY SIM |
| Dibenzo(a,h)anthracene <sup>a</sup> |                  | 91.9 J          | 100  | 28   | ug/kg | SW846 8270C BY SIM |
| Fluoranthene <sup>a</sup>           |                  | 557             | 500  | 50   | ug/kg | SW846 8270C BY SIM |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> |                  | 305             | 100  | 25   | ug/kg | SW846 8270C BY SIM |
| Phenanthrene <sup>a</sup>           |                  | 281 J           | 500  | 50   | ug/kg | SW846 8270C BY SIM |

## Summary of Hits

Page 10 of 10

Job Number: C33923  
Account: EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI  
Collected: 05/05/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual       | RL   | MDL  | Units | Method             |
|--------------------------|------------------|-----------------------|------|------|-------|--------------------|
| Pyrene <sup>a</sup>      |                  | 531                   | 500  | 50   | ug/kg | SW846 8270C BY SIM |
| TPH (C10-C28)            |                  | 53.4                  | 50   | 12   | mg/kg | SW846 8015B M      |
| TPH (> C28-C40)          |                  | 231                   | 99   | 25   | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>    |                  | 3.2                   | 0.20 |      | mg/kg | SW846 6010B        |
| <b>C33923-24</b>         |                  | <b>2003.B19.48-60</b> |      |      |       |                    |
| Benzo(g,h,i)perylene     |                  | 1.2 J                 | 3.3  | 0.73 | ug/kg | SW846 8270C BY SIM |
| TPH (> C28-C40)          |                  | 3.04 J                | 6.6  | 1.7  | mg/kg | SW846 8015B M      |
| Chromium <sup>b</sup>    |                  | 2.8                   | 0.49 |      | mg/kg | SW846 6010B        |
| <b>C33923-25</b>         |                  | <b>2003.B29.48-60</b> |      |      |       |                    |
| Chromium <sup>b</sup>    |                  | 3.2                   | 0.49 |      | mg/kg | SW846 6010B        |
| <b>C33923-26</b>         |                  | <b>2003.B30.48-60</b> |      |      |       |                    |
| Chromium <sup>b</sup>    |                  | 2.8                   | 0.50 |      | mg/kg | SW846 6010B        |

- (a) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).  
(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.  
(c) ISTD #6 outside of control limits due to matrix interference. Confirmed by re-analysis.  
(d) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).  
(e) Dilution required due to matrix interference (dark and viscous extract).

Sample Results

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Report of Analysis

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## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS1                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-1                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14199.D | 10 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 250 | 25  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 250 | 25  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 250 | 25  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 69.7   | 50  | 12  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 98.3   | 50  | 8.5 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 189    | 50  | 10  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 90.0   | 50  | 11  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 101    | 50  | 11  | ug/kg |   |
| 218-01-9 | Chrysene               | 157    | 50  | 10  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 17.9   | 50  | 14  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 284    | 250 | 25  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 250 | 25  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 92.8   | 50  | 12  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 250 | 50  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 84.7   | 250 | 25  | ug/kg | J |
| 129-00-0 | Pyrene                 | 218    | 250 | 25  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 75%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 109%   |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS1                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-1                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #2              | MM021908.D | 20 | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.1 g         | 10.0 ml      |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 67  | 8.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 67  | 7.3 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 67  | 16  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 67  | 8.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 67  | 8.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 670 | 67  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 67  | 12  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 67  | 14  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 67  | 12  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 67  | 10  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 67  | 12  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 67  | 12  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 67  | 11  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 67  | 12  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 67  | 11  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 67  | 9.3 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 67  | 10  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 67  | 11  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 670 | 130 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 74%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 80%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 92%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS1                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-1                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313093.D | 10 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.5 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No.  | Compound             | Result | RL     | MDL     | Units | Q |
|----------|----------------------|--------|--------|---------|-------|---|
|          | TPH (C10-C28)        | 50.8   | 50     | 12      | mg/kg |   |
|          | TPH (> C28-C40)      | 273    | 100    | 25      | mg/kg |   |
| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 630-01-3 | Hexacosane           | 91%    |        | 37-122% |       |   |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS1

Lab Sample ID: C33923-1

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 7.4    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 90.5   | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 18.8   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 126    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 35.6   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | 0.080  | 0.040 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | < 1.0  | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS2                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-2                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #2              | T14185.D | 40 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.1 g         | 10.0 ml      |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL  | Units | Q |
|----------|------------------------|--------|------|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 6600 | 660  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 6600 | 660  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 6600 | 660  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 1300 | 330  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 1300 | 230  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 298    | 1300 | 270  | ug/kg | J |
| 191-24-2 | Benzo(g,h,i)perylene   | 325    | 1300 | 290  | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 1300 | 310  | ug/kg |   |
| 218-01-9 | Chrysene               | 277    | 1300 | 270  | ug/kg | J |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 1300 | 370  | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 6600 | 660  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 6600 | 660  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 1300 | 330  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 6600 | 1300 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 6600 | 1300 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 6600 | 1300 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 6600 | 660  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 6600 | 660  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 82%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 93%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 92%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS2                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-2                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #2              | MM021906.D | 100 | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.0 g         | 10.0 ml      |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1           | Run# 2 | Limits  |
|-----------|----------------------|------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 57%              |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 53%              |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 88%              |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 52% <sup>c</sup> |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS2                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-2                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313065.D | 5  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 184    | 170 | 42  | mg/kg |   |
|         | TPH (> C28-C40) | 1550   | 330 | 83  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 57%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS2

Lab Sample ID: C33923-2

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 11.1    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 61.4    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 1.7     | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 26.5    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 94.6    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | < 1.0   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS3                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-3                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14186.D | 20 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 500 | 50  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 500 | 50  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 89.5   | 100 | 25  | ug/kg | J |
| 50-32-8  | Benzo(a)pyrene         | 117    | 100 | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 176    | 100 | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 132    | 100 | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 109    | 100 | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 157    | 100 | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 100 | 28  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 250    | 500 | 50  | ug/kg | J |
| 86-73-7  | Fluorene               | ND     | 500 | 50  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 98.1   | 100 | 25  | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 500 | 100 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 85.9   | 500 | 50  | ug/kg | J |
| 129-00-0 | Pyrene                 | 237    | 500 | 50  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 72%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 92%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS3                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-3                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021907.D | 50 | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |
| Run #2              |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 170  | 20  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 170  | 18  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 170  | 40  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 170  | 20  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 170  | 20  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 1700 | 170 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 170  | 30  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 170  | 35  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 170  | 30  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 170  | 25  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 170  | 30  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 170  | 30  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 170  | 28  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 170  | 30  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 170  | 28  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 170  | 23  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 170  | 25  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 170  | 27  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 1700 | 330 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 93%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 123%   |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS3                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-3                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 | HH313066.D | 100 | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.5 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 795    | 500 | 120 | mg/kg |   |
|         | TPH (> C28-C40) | 3890   | 990 | 250 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 69%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS3

Lab Sample ID: C33923-3

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte  | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | 8.4    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium   | 107    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium  | 2.6    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium | 31.0   | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead     | 116    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury  | 0.058  | 0.036 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver   | < 0.99 | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS4                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-4                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14187.D | 4  | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 99 | 9.9 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 99 | 9.9 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 99 | 9.9 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 37.7   | 20 | 5.0 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 70.8   | 20 | 3.4 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 115    | 20 | 4.0 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 76.2   | 20 | 4.4 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 81.3   | 20 | 4.6 | ug/kg |   |
| 218-01-9 | Chrysene               | 108    | 20 | 4.0 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 8.6    | 20 | 5.5 | ug/kg | J |
| 206-44-0 | Fluoranthene           | 195    | 99 | 9.9 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 99 | 9.9 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 69.6   | 20 | 5.0 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 99 | 20  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 99 | 20  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 99 | 20  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 77.9   | 99 | 9.9 | ug/kg | J |
| 129-00-0 | Pyrene                 | 160    | 99 | 9.9 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 73%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 94%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS4                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-4                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021910.D | 10 | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |
| Run #2              |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 33  | 4.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 33  | 3.7 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 33  | 8.0 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 33  | 4.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 33  | 4.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 330 | 33  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 33  | 6.0 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 33  | 7.0 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 33  | 6.0 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 33  | 5.0 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 33  | 6.0 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 33  | 6.0 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 33  | 5.7 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 33  | 6.0 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 33  | 5.7 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 33  | 4.7 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 33  | 5.0 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 33  | 5.3 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 330 | 67  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 76%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 117%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 88%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS4                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-4                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313094.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 115    | 66  | 17  | mg/kg |   |
|         | TPH (> C28-C40) | 471    | 130 | 33  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 78%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS4

Lab Sample ID: C33923-4

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 14.3    | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 65.4    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 1.0     | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 40.1    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 64.9    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | 1.6     | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS5                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-5                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14188.D | 10 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 250 | 25  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 250 | 25  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 250 | 25  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 63.9   | 50  | 12  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 100    | 50  | 8.5 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 167    | 50  | 10  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 110    | 50  | 11  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 95.2   | 50  | 11  | ug/kg |   |
| 218-01-9 | Chrysene               | 143    | 50  | 10  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 16.5   | 50  | 14  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 256    | 250 | 25  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 250 | 25  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 108    | 50  | 12  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 250 | 50  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 100    | 250 | 25  | ug/kg | J |
| 129-00-0 | Pyrene                 | 214    | 250 | 25  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 69%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 80%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 104%   |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS5                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-5                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021909.D | 20 | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |
| Run #2              |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 66  | 8.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 66  | 7.3 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 66  | 16  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 66  | 8.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 66  | 8.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 660 | 66  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 66  | 12  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 66  | 14  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 66  | 12  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 66  | 10  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 66  | 12  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 66  | 12  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 66  | 11  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 66  | 12  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 66  | 11  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 66  | 9.3 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 66  | 10  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 66  | 11  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 660 | 130 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 67%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 66%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 78%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 80%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS5                       |                        |                  |
| <b>Lab Sample ID:</b>    | C33923-5                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313068.D | 5  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 519    | 83  | 21  | mg/kg |   |
|         | TPH (> C28-C40) | 845    | 170 | 42  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|----------|----------------------|-------------------|--------|---------|
| 630-01-3 | Hexacosane           | 151% <sup>b</sup> |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Outside control limits due to dilution.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS5

Lab Sample ID: C33923-5

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 8.0     | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 68.2    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 1.1     | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 27.9    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 76.7    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | < 0.037 | 0.037 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS6                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-6                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14189.D | 10 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 830 | 83  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 830 | 83  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 830 | 83  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 125    | 170 | 42  | ug/kg | J |
| 50-32-8  | Benzo(a)pyrene         | 111    | 170 | 28  | ug/kg | J |
| 205-99-2 | Benzo(b)fluoranthene   | 292    | 170 | 33  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 119    | 170 | 37  | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | 122    | 170 | 38  | ug/kg | J |
| 218-01-9 | Chrysene               | 304    | 170 | 33  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 170 | 47  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 495    | 830 | 83  | ug/kg | J |
| 86-73-7  | Fluorene               | ND     | 830 | 83  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 112    | 170 | 42  | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 830 | 170 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 134    | 830 | 83  | ug/kg | J |
| 129-00-0 | Pyrene                 | 417    | 830 | 83  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 65%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 86%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS6                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-6                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021962.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 670  | 80   | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 670  | 73   | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 670  | 160  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 670  | 80   | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 670  | 80   | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 6700 | 670  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 670  | 120  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 670  | 140  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 670  | 120  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 670  | 100  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 670  | 120  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 670  | 120  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 670  | 110  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 670  | 120  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 670  | 110  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 670  | 93   | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 670  | 100  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 670  | 110  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 6700 | 1300 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 99%               |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 98%               |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 150% <sup>c</sup> |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 94%               |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

(c) Outside control limits due to dilution and matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS6

Lab Sample ID: C33923-6

Matrix: SO - Soil

Method: SW846 8015B M SW846 3550B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313095.D | 25 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 975    | 410 | 100 | mg/kg |   |
|         | TPH (> C28-C40) | 5010   | 830 | 210 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 57%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS6

Lab Sample ID: C33923-6

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 18.8    | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 64.8    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 2.0     | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 50.6    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 76.5    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | < 0.037 | 0.037 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | 1.0     | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS7                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-7                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #2              | T14190.D | 20 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.2 g         | 1.5 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 500 | 50  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 500 | 50  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 133    | 99  | 25  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 192    | 99  | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 273    | 99  | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 199    | 99  | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 229    | 99  | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 260    | 99  | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 39.1   | 99  | 28  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 407    | 500 | 50  | ug/kg | J |
| 86-73-7  | Fluorene               | ND     | 500 | 50  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 189    | 99  | 25  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 500 | 99  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 500 | 99  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 500 | 99  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 165    | 500 | 50  | ug/kg | J |
| 129-00-0 | Pyrene                 | 361    | 500 | 50  | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 70%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 98%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS7                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-7                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021963.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 670  | 80   | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 670  | 73   | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 670  | 160  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 670  | 80   | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 670  | 80   | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 6700 | 670  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 670  | 120  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 670  | 140  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 670  | 120  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 670  | 100  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 670  | 120  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 670  | 120  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 670  | 110  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 670  | 120  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 670  | 110  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 670  | 93   | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 670  | 100  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 670  | 110  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 6700 | 1300 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS7                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-7                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313070.D | 5  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 332    | 83  | 21  | mg/kg |   |
|         | TPH (> C28-C40) | 986    | 170 | 41  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1           | Run# 2 | Limits  |
|----------|----------------------|------------------|--------|---------|
| 630-01-3 | Hexacosane           | 26% <sup>b</sup> |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS7

Lab Sample ID: C33923-7

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 13.3    | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 66.2    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 1.5     | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 35.2    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 73.9    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Client Sample ID: 2003.SS8

Lab Sample ID: C33923-8

Matrix: SO - Soil

Method: SW846 8270C BY SIM SW846 3550B

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14191.D | 10 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 250 | 25  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 250 | 25  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 250 | 25  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 85.3   | 50  | 12  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 135    | 50  | 8.5 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 177    | 50  | 10  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 143    | 50  | 11  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 168    | 50  | 11  | ug/kg |   |
| 218-01-9 | Chrysene               | 215    | 50  | 10  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 17.7   | 50  | 14  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 309    | 250 | 25  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 250 | 25  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 134    | 50  | 12  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 250 | 50  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 222    | 250 | 25  | ug/kg | J |
| 129-00-0 | Pyrene                 | 328    | 250 | 25  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 73%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 93%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS8                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-8                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021971.D | 40 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 130  | 16  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 130  | 15  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 130  | 32  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 130  | 16  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 130  | 16  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 1300 | 130 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 130  | 24  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 130  | 28  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 130  | 24  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 130  | 20  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 130  | 24  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 130  | 24  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 130  | 23  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 130  | 24  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 130  | 23  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 130  | 19  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 130  | 20  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 130  | 21  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 1300 | 270 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 84%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 84%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 113%   |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS8                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-8                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313075.D | 5  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 687    | 83  | 21  | mg/kg |   |
|         | TPH (> C28-C40) | 1090   | 170 | 42  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 96%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS8

Lab Sample ID: C33923-8

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 10     | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 55.6   | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 2.5    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 34.0   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 80.5   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | 0.068  | 0.041 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | < 1.0  | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

**Client Sample ID:** 2003.SS9  
**Lab Sample ID:** C33923-9  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/05/14  
**Date Received:** 05/08/14  
**Percent Solids:** n/a <sup>a</sup>

| Run #1 <sup>b</sup> | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #2              | T14192.D | 10 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.0 g         | 1.5 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | 27.7   | 250 | 25  | ug/kg | J |
| 208-96-8 | Acenaphthylene         | 31.1   | 250 | 25  | ug/kg | J |
| 120-12-7 | Anthracene             | 26.1   | 250 | 25  | ug/kg | J |
| 56-55-3  | Benzo(a)anthracene     | 457    | 50  | 12  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 680    | 50  | 8.5 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 1150   | 50  | 10  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 601    | 50  | 11  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 694    | 50  | 11  | ug/kg |   |
| 218-01-9 | Chrysene               | 1040   | 50  | 10  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 92.9   | 50  | 14  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 2000   | 250 | 25  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 250 | 25  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 624    | 50  | 12  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | 67.3   | 250 | 50  | ug/kg | J |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 250 | 50  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 250 | 50  | ug/kg |   |
| 85-01-8  | Phenanthrene           | 1420   | 250 | 25  | ug/kg |   |
| 129-00-0 | Pyrene                 | 1640   | 250 | 25  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 75%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 93%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS9                       | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-9                       | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021968.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 101%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 92%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.9

3

**Client Sample ID:** 2003.SS9  
**Lab Sample ID:** C33923-9  
**Matrix:** SO - Soil  
**Method:** SW846 8015B M SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/05/14  
**Date Received:** 05/08/14  
**Percent Solids:** n/a <sup>a</sup>

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313103.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 266    | 330 | 83  | mg/kg | J |
|         | TPH (> C28-C40) | 1940   | 670 | 170 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 57%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS9

Lab Sample ID: C33923-9

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 12.5   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 93.2   | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 1.7    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 45.3   | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 113    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | 0.15   | 0.042 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | < 0.99 | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

**Client Sample ID:** 2003.SS10  
**Lab Sample ID:** C33923-10  
**Matrix:** SO - Soil  
**Method:** SW846 8270C BY SIM SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/05/14  
**Date Received:** 05/08/14  
**Percent Solids:** n/a<sup>a</sup>

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14193.D | 10 | 05/19/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 830 | 83  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 830 | 83  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 830 | 83  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 333    | 170 | 42  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 495    | 170 | 28  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 640    | 170 | 33  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 447    | 170 | 37  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 613    | 170 | 38  | ug/kg |   |
| 218-01-9 | Chrysene               | 645    | 170 | 33  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 64.7   | 170 | 47  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 1330   | 830 | 83  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 830 | 83  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 407    | 170 | 42  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 830 | 170 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 748    | 830 | 83  | ug/kg | J |
| 129-00-0 | Pyrene                 | 1080   | 830 | 83  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 78%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 102%   |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.10  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS10                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-10                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #2              | MM021969.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 92%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 118%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 136%   |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.10

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS10                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-10                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313077.D | 5  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 139    | 83  | 21  | mg/kg |   |
|         | TPH (> C28-C40) | 861    | 170 | 41  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 87%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS10

Lab Sample ID: C33923-10

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 10.5   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 78.8   | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 1.8    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 59.5   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 102    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | 0.15   | 0.041 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | 1.4    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS11                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-11                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14194.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL | Units | Q |
|----------|------------------------|--------|------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1700 | 170 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 1700 | 170 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 1700 | 170 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 624    | 330  | 83  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 893    | 330  | 57  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 1590   | 330  | 67  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 749    | 330  | 73  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 759    | 330  | 77  | ug/kg |   |
| 218-01-9 | Chrysene               | 1290   | 330  | 67  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 133    | 330  | 93  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 2570   | 1700 | 170 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 1700 | 170 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 694    | 330  | 83  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 1700 | 330 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 1420   | 1700 | 170 | ug/kg | J |
| 129-00-0 | Pyrene                 | 2150   | 1700 | 170 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 52%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 63%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 71%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS11                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-11                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021965.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 75%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 70%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 67%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 71%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.11

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS11                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-11                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313078.D | 5  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 10.0 ml      |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 317    | 160 | 41  | mg/kg |   |
|         | TPH (> C28-C40) | 1730   | 330 | 82  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 75%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS11

Lab Sample ID: C33923-11

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 52.6   | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Barium <sup>b</sup>   | 134    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Cadmium <sup>b</sup>  | 4.6    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Chromium <sup>b</sup> | 55.6   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Lead <sup>b</sup>     | 1400   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |
| Mercury               | 0.047  | 0.036 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/21/14 RS | SW846 6010B <sup>3</sup> | SW846 3050B <sup>5</sup> |
| Silver <sup>b</sup>   | < 1.0  | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>5</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Instrument QC Batch: MA3967

(4) Prep QC Batch: MP7841

(5) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS12                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-12                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14195.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL | Units | Q |
|----------|------------------------|--------|------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 1700 | 170 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 1700 | 170 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 1700 | 170 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 247    | 330  | 83  | ug/kg | J |
| 50-32-8  | Benzo(a)pyrene         | 311    | 330  | 56  | ug/kg | J |
| 205-99-2 | Benzo(b)fluoranthene   | 486    | 330  | 66  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 391    | 330  | 73  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 322    | 330  | 76  | ug/kg | J |
| 218-01-9 | Chrysene               | 433    | 330  | 66  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 330  | 93  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 646    | 1700 | 170 | ug/kg | J |
| 86-73-7  | Fluorene               | ND     | 1700 | 170 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 294    | 330  | 83  | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 1700 | 330 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 1700 | 330 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 372    | 1700 | 170 | ug/kg | J |
| 129-00-0 | Pyrene                 | 733    | 1700 | 170 | ug/kg | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 57%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 67%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 74%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS12                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-12                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021964.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 670  | 80   | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 670  | 73   | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 670  | 160  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 670  | 80   | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 670  | 80   | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 6700 | 670  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 670  | 120  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 670  | 140  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 670  | 120  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 670  | 100  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 670  | 120  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 670  | 120  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 670  | 110  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 670  | 120  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 670  | 110  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 670  | 93   | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 670  | 100  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 670  | 110  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 6700 | 1300 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 89%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.12

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS12                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-12                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1              | HH313104.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 <sup>b</sup> | HH313387.D | 10 | 05/19/14 | AG | 05/13/14  | OP10027    | GHH1264          |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 | 30.1 g         | 10.0 ml      |

## TPH Extractable

| CAS No. | Compound        | Result | RL   | MDL | Units | Q |
|---------|-----------------|--------|------|-----|-------|---|
|         | TPH (C10-C28)   | 3660   | 660  | 170 | mg/kg |   |
|         | TPH (> C28-C40) | 8470   | 1300 | 330 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1            | Run# 2            | Limits  |
|----------|----------------------|-------------------|-------------------|---------|
| 630-01-3 | Hexacosane           | 265% <sup>c</sup> | 270% <sup>d</sup> | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Confirmation run for surrogate recoveries.

(c) Surrogate recoveries out control limits due to matrix interference and dilution. Confirm by re-dilution and re-analysis.

(d) Outside control limits due to dilution and matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: 2003.SS12

Lab Sample ID: C33923-12

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 24.7   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 134    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 3.2    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 50.2   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 200    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | 0.077  | 0.041 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | 2.3    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS13                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-13                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14196.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 500 | 50  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 500 | 50  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 440    | 100 | 25  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 660    | 100 | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 849    | 100 | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 598    | 100 | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 717    | 100 | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 836    | 100 | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 133    | 100 | 28  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 1480   | 500 | 50  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 500 | 50  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 471    | 100 | 25  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 500 | 100 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 734    | 500 | 50  | ug/kg |   |
| 129-00-0 | Pyrene                 | 1340   | 500 | 50  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 60%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 88%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS13                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-13                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021966.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 82%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 96%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 87%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS13                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-13                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313080.D | 5  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 246    | 83  | 21  | mg/kg |   |
|         | TPH (> C28-C40) | 903    | 170 | 41  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 95%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS13

Lab Sample ID: C33923-13

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 11.9   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 118    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 1.3    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 36.0   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 121    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | 0.16   | 0.037 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | 1.5    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS14                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-14                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14197.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 500 | 50  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 500 | 50  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 538    | 100 | 25  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 749    | 100 | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 1180   | 100 | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 547    | 100 | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 656    | 100 | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 917    | 100 | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 104    | 100 | 28  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 1680   | 500 | 50  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 500 | 50  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 583    | 100 | 25  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 500 | 100 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 793    | 500 | 50  | ug/kg |   |
| 129-00-0 | Pyrene                 | 1480   | 500 | 50  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 73%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 86%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 94%    |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS14                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-14                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021967.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 91%    |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.14

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS14                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-14                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313105.D | 2  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 77.8   | 66  | 17  | mg/kg |   |
|         | TPH (> C28-C40) | 642    | 130 | 33  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 98%    |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS14

Lab Sample ID: C33923-14

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 17.7   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 107    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 1.4    | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 47.4   | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 164    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | 0.085  | 0.039 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | < 1.0  | 1.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS15                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-15                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | T14198.D | 10 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| Run #2              |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 830 | 83  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 830 | 83  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 830 | 83  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 527    | 170 | 41  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 806    | 170 | 28  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 1340   | 170 | 33  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 599    | 170 | 36  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 661    | 170 | 38  | ug/kg |   |
| 218-01-9 | Chrysene               | 1040   | 170 | 33  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 115    | 170 | 46  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 1720   | 830 | 83  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 830 | 83  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 615    | 170 | 41  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 830 | 170 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 830 | 170 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 857    | 830 | 83  | ug/kg |   |
| 129-00-0 | Pyrene                 | 1640   | 830 | 83  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 74%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 93%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 112%   |        | 51-146% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS15                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-15                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021970.D | 100 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 57  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 57  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 47  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 670 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 87%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 130%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 112%   |        | 53-145% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.15

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.SS15                      | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-15                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH313106.D | 2  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL | Units | Q |
|---------|-----------------|--------|-----|-----|-------|---|
|         | TPH (C10-C28)   | 127    | 66  | 17  | mg/kg |   |
|         | TPH (> C28-C40) | 744    | 130 | 33  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 100%   |        | 37-122% |

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.SS15

Lab Sample ID: C33923-15

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|--------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 19.6   | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium <sup>b</sup>   | 254    | 20    | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium <sup>b</sup>  | 1.6    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>b</sup> | 54.6   | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead <sup>b</sup>     | 197    | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | 0.19   | 0.037 | mg/kg | 1  | 05/14/14 | 05/15/14 EB | SW846 7471A <sup>1</sup> | SW846 7471A <sup>3</sup> |
| Selenium <sup>b</sup> | < 2.0  | 2.0   | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver <sup>b</sup>   | 1.2    | 0.99  | mg/kg | 10 | 05/15/14 | 05/20/14 RS | SW846 6010B <sup>2</sup> | SW846 3050B <sup>4</sup> |

(1) Instrument QC Batch: MA3958

(2) Instrument QC Batch: MA3964

(3) Prep QC Batch: MP7841

(4) Prep QC Batch: MP7843

(a) Percent solids not analyzed. Sample was air dried prior to analysis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B2.42-54                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-16                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46039.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.74 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.3 | 0.53 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.3 | 0.53 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.3 | 0.53 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.3 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 113%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 108%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B2.42-54                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-16                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36403.D | 1  | 05/13/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 <sup>c</sup> | X36450.D | 1  | 05/15/14 | AA | 05/08/14  | OP9999     | EX1590           |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 | 30.2 g         | 1.0 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.56 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.66 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 0.87   | 3.3 | 0.73 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.76 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.66 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 80%    | 81%    | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 90%    | 86%    | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 114%   | 132%   | 51-146% |

(a) All results reported on a wet weight basis.

(b) ISTD #6 outside of control limits due to matrix interference. Confirmed by re-analysis.

(c) Confirmation run for internal standard areas.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B2.42-54                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-16                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43990.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.16 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.097 | 0.048 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 103%   |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B2.42-54                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-16                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021760.D | 1  | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 94%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 106%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 110%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 111%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B2.42-54                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-16                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312947.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 106%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B2.42-54

Lab Sample ID: C33923-16

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.9     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

3.17

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B7.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-17                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46040.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 4.20 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.0 | 0.60 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.0 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 117%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 108%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B7.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-17                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36412.D | 20 | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | 227    | 500 | 50  | ug/kg | J |
| 208-96-8 | Acenaphthylene         | 66.3   | 500 | 50  | ug/kg | J |
| 120-12-7 | Anthracene             | 672    | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 3710   | 99  | 25  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 3470   | 99  | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 3800   | 99  | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 1660   | 99  | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 3030   | 99  | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 4340   | 99  | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 335    | 99  | 28  | ug/kg |   |
| 206-44-0 | Fluoranthene           | 9580   | 500 | 50  | ug/kg |   |
| 86-73-7  | Fluorene               | 291    | 500 | 50  | ug/kg | J |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2240   | 99  | 25  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | 182    | 500 | 99  | ug/kg | J |
| 91-57-6  | 2-Methylnaphthalene    | 107    | 500 | 99  | ug/kg | J |
| 91-20-3  | Naphthalene            | 101    | 500 | 99  | ug/kg | J |
| 85-01-8  | Phenanthrene           | 5680   | 500 | 50  | ug/kg |   |
| 129-00-0 | Pyrene                 | 7670   | 500 | 50  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 73%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 115%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.17

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B7.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-17                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43994.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.18 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.097 | 0.048 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 93%    |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B7.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-17                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021761.D | 10 | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2              |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 33  | 4.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 33  | 3.6 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 33  | 7.9 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 33  | 4.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 33  | 4.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 330 | 33  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 33  | 6.0 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 33  | 6.9 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 33  | 6.0 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 33  | 5.0 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 33  | 6.0 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 33  | 6.0 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 33  | 5.6 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 33  | 6.0 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 33  | 5.6 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 33  | 4.6 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 33  | 5.0 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 33  | 5.3 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 330 | 66  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 115%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 85%    |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B7.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-17                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312948.D | 10 | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.5 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL | MDL | Units | Q |
|---------|-----------------|--------|----|-----|-------|---|
|         | TPH (C10-C28)   | 239    | 50 | 12  | mg/kg |   |
|         | TPH (> C28-C40) | 409    | 99 | 25  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 106%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B7.48-60

Lab Sample ID: C33923-17

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.3     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B9.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-18                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46043.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 4.01 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.2 | 0.62 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.2 | 0.62 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.2 | 0.62 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.2 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 115%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 109%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 102%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B9.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-18                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36406.D | 1  | 05/13/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 113%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B9.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-18                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43995.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.18 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.097 | 0.048 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 99%    |        | 60-115% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B9.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-18                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021762.D | 1  | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 101%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 112%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 111%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B9.48-60                  | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-18                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312949.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 108%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B9.48-60

Lab Sample ID: C33923-18

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | 5.1     | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.3     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B14.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-19                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | M46044.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.31 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.8 | 0.58 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.8 | 0.58 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.8 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 116%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 106%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 102%   |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B14.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-19                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36407.D | 1  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 81%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 90%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 116%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.19

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B14.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-19                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43996.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.12 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.098  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 99%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B14.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-19                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021763.D | 1  | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 87%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 98%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 113%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 107%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.19  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B14.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-19                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312950.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 2.03   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 114%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B14.48-60

Lab Sample ID: C33923-19

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.49  | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.5     | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B15.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-20                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32868.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.11 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.1 | 0.61 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.1 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 108%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 97%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B15.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-20                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36408.D | 1  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 0.96   | 3.3 | 0.56 | ug/kg | J |
| 205-99-2 | Benzo(b)fluoranthene   | 0.90   | 3.3 | 0.66 | ug/kg | J |
| 191-24-2 | Benzo(g,h,i)perylene   | 5.2    | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 0.86   | 3.3 | 0.76 | ug/kg | J |
| 218-01-9 | Chrysene               | 1.0    | 3.3 | 0.66 | ug/kg | J |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1.4    | 3.3 | 0.83 | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 78%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 86%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 113%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B15.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-20                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43997.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.12 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.098  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 96%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B15.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-20                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021764.D | 1  | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.36 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.79 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.69 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.56 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.56 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.46 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 107%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 112%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B15.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-20                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312951.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | 20.8   | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 33.6   | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 108%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B15.48-60

Lab Sample ID: C33923-20

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.2     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | 17.0    | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.042 | 0.042 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B16.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-21                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | M46075.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 4.36 g         | 5.0 ml       | 100 ul           |
| Run #2 |                |              |                  |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL | Units | Q |
|-----------|-------------------------|--------|-----|-----|-------|---|
| 71-43-2   | Benzene                 | ND     | 290 | 29  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 290 | 29  | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 290 | 29  | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 570 | 57  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 290 | 57  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 111%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 110%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 106%   |        | 70-130% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B16.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-21                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36415.D | 40 | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 5.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL   | MDL | Units | Q |
|----------|------------------------|--------|------|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 3300 | 330 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 3300 | 330 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 3300 | 330 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 660  | 170 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 660  | 110 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 660  | 130 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 241    | 660  | 150 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 660  | 150 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 660  | 130 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 660  | 190 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 3300 | 330 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 3300 | 330 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 212    | 660  | 170 | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 3300 | 660 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 3300 | 660 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 3300 | 660 | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 3300 | 330 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 3300 | 330 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 47%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 60%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 72%    |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.21  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B16.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-21                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK43999.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.25 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.095  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 86%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B16.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-21                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #               | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021765.D | 100 | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2              |            |     |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 56  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 56  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 46  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 660 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1           | Run# 2 | Limits  |
|-----------|----------------------|------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 50%              |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 47% <sup>c</sup> |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 84%              |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 127%             |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(c) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.21

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B16.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-21                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312952.D | 50 | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 5.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL   | MDL | Units | Q |
|---------|-----------------|--------|------|-----|-------|---|
|         | TPH (C10-C28)   | 2350   | 830  | 210 | mg/kg |   |
|         | TPH (> C28-C40) | 3440   | 1700 | 420 | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 38%    |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B16.48-60

Lab Sample ID: C33923-21

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 3.9   | 3.9   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 39    | 39    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.49  | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.6     | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 3.9   | 3.9   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 3.9   | 3.9   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.22  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B17.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-22                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32869.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.16 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.0 | 0.60 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.0 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 96%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.22  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B17.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-22                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #1 <sup>b</sup> | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #2              | X36413.D | 4  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #2 | 30.2 g         | 1.0 ml       |

## BN PAH List

| CAS No.  | Compound               | Result | RL | MDL | Units | Q |
|----------|------------------------|--------|----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 66 | 6.6 | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 66 | 6.6 | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 66 | 6.6 | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 13 | 3.3 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 13 | 2.3 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 13 | 2.6 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 3.6    | 13 | 2.9 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 13 | 3.0 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 13 | 2.6 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 13 | 3.7 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 66 | 6.6 | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 66 | 6.6 | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3.4    | 13 | 3.3 | ug/kg | J |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 66 | 13  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 66 | 13  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 66 | 13  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 66 | 6.6 | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 66 | 6.6 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 96%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 127%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference (dark and viscous extract).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.22

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B17.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-22                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44000.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.50 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.091  | 0.045   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 103%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 2003.B17.48-60  
**Lab Sample ID:** C33923-22  
**Matrix:** SO - Soil  
**Method:** SW846 8081A SW846 3550B  
**Project:** Kahului Harbor Parcel-Maui, HI

**Date Sampled:** 05/05/14  
**Date Received:** 05/08/14  
**Percent Solids:** n/a<sup>a</sup>

| Run #               | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021766.D | 10 | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2              |            |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL | Units | Q |
|------------|---------------------|--------|-----|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 33  | 4.0 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 33  | 3.7 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 33  | 8.0 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 33  | 4.0 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 33  | 4.0 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 330 | 33  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 33  | 6.0 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 33  | 7.0 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 33  | 6.0 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 33  | 5.0 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 33  | 6.0 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 33  | 6.0 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 33  | 5.7 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 33  | 6.0 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 33  | 5.7 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 33  | 4.7 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 33  | 5.0 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 33  | 5.3 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 330 | 67  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 99%    |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 120%   |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.22

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B17.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-22                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312968.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1256          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 2.67   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 108%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B17.48-60

Lab Sample ID: C33923-22

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.2     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.037 | 0.037 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

3.23

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B18.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-23                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32870.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.10 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.1 | 0.61 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.1 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 111%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 96%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 96%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B18.48-60  
 Lab Sample ID: C33923-23  
 Matrix: SO - Soil  
 Method: SW846 8270C BY SIM SW846 3550B  
 Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/05/14  
 Date Received: 05/08/14  
 Percent Solids: n/a <sup>a</sup>

|                     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | X36414.D | 20 | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2              |          |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.5 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL | Units | Q |
|----------|------------------------|--------|-----|-----|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 500 | 50  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 500 | 50  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 500 | 50  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | 215    | 100 | 25  | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | 295    | 100 | 17  | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | 327    | 100 | 20  | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 298    | 100 | 22  | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | 303    | 100 | 23  | ug/kg |   |
| 218-01-9 | Chrysene               | 359    | 100 | 20  | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | 91.9   | 100 | 28  | ug/kg | J |
| 206-44-0 | Fluoranthene           | 557    | 500 | 50  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 500 | 50  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 305    | 100 | 25  | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 500 | 100 | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 500 | 100 | ug/kg |   |
| 85-01-8  | Phenanthrene           | 281    | 500 | 50  | ug/kg | J |
| 129-00-0 | Pyrene                 | 531    | 500 | 50  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 110%   |        | 51-146% |

(a) All results reported on a wet weight basis.

(b) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.23  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B18.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-23                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44001.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.26 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.095  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 99%    |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B18.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-23                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 <sup>b</sup> | MM021767.D | 100 | 05/09/14 | RV | 05/08/14  | OP10003    | GMM644           |
| Run #2              |            |     |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL   | MDL | Units | Q |
|------------|---------------------|--------|------|-----|-------|---|
| 309-00-2   | Aldrin              | ND     | 330  | 40  | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 330  | 37  | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 330  | 80  | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 330  | 40  | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 330  | 40  | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3300 | 330 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 330  | 60  | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 330  | 70  | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 330  | 60  | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 330  | 50  | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 330  | 60  | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 330  | 60  | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 330  | 56  | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 330  | 60  | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 330  | 56  | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 330  | 46  | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 330  | 50  | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 330  | 53  | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3300 | 660 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 70%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 72%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 112%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 109%   |        | 53-145% |

(a) All results reported on a wet weight basis.

(b) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.23

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B18.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-23                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312957.D | 10 | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.5 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL | MDL | Units | Q |
|---------|-----------------|--------|----|-----|-------|---|
|         | TPH (C10-C28)   | 53.4   | 50 | 12  | mg/kg |   |
|         | TPH (> C28-C40) | 231    | 99 | 25  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 93%    |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B18.48-60

Lab Sample ID: C33923-23

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 2.0   | 2.0   | mg/kg | 10 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 20    | 20    | mg/kg | 10 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.20  | 0.20  | mg/kg | 2  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.2     | 0.20  | mg/kg | 2  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 2.0   | 2.0   | mg/kg | 10 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 2.0   | 2.0   | mg/kg | 10 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 0.99  | 0.99  | mg/kg | 10 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.24

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B19.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-24                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32871.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.41 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.7 | 0.57 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.7 | 0.57 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 11  | 1.1  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.7 | 1.1  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 95%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 99%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B19.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-24                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36409.D | 1  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | 1.2    | 3.3 | 0.73 | ug/kg | J |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 107%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

3.24  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B19.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-24                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44002.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.13 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.097  | 0.049   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 102%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B19.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-24                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021751.D | 1  | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 111%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.24  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B19.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-24                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312958.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | 3.04   | 6.6 | 1.7  | mg/kg | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 103%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B19.48-60

Lab Sample ID: C33923-24

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.49  | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.8     | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.036 | 0.036 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B29.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-25                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32872.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.09 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.1 | 0.61 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.1 | 0.61 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.1 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 114%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 95%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 98%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B29.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-25                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36410.D | 1  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 84%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 91%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 111%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.25

3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B29.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-25                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44003.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.21 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.096  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 103%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B29.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-25                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021752.D | 1  | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 104%   |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 111%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B29.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-25                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312959.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 106%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B29.48-60

Lab Sample ID: C33923-25

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a<sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.49  | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 3.2     | 0.49  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.039 | 0.039 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit



## Report of Analysis

Page 1 of 1

3.26  
3

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B30.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-26                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8260B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | L32873.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 4.14 g         |
| Run #2 |                |

## Purgeable Aromatics, MTBE

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 6.0 | 0.60 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 6.0 | 0.60 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 12  | 1.2  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 6.0 | 1.2  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 110%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 93%    |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 96%    |        | 70-130% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B30.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-26                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3550B |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

| Run #  | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36411.D | 1  | 05/14/14 | AA | 05/08/14  | OP9999     | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 90%    |        | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 98%    |        | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 123%   |        | 51-146% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B30.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-26                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B                    |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44004.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.20 g         |
| Run #2 |                |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.096  | 0.048   | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 108%   |        | 60-115% |       |   |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B30.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-26                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8081A SW846 3550B        |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021753.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.6  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 89%    |        | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 113%   |        | 53-145% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |                  |
|--------------------------|--------------------------------|------------------------|------------------|
| <b>Client Sample ID:</b> | 2003.B30.48-60                 | <b>Date Sampled:</b>   | 05/05/14         |
| <b>Lab Sample ID:</b>    | C33923-26                      | <b>Date Received:</b>  | 05/08/14         |
| <b>Matrix:</b>           | SO - Soil                      | <b>Percent Solids:</b> | n/a <sup>a</sup> |
| <b>Method:</b>           | SW846 8015B M SW846 3550B      |                        |                  |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |                  |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | HH312960.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.6 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 103%   |        | 37-122% |

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B30.48-60

Lab Sample ID: C33923-26

Matrix: SO - Soil

Date Sampled: 05/05/14

Date Received: 05/08/14

Percent Solids: n/a <sup>a</sup>

Project: Kahului Harbor Parcel-Maui, HI

## Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic <sup>b</sup>  | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Barium <sup>b</sup>   | < 40    | 40    | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Cadmium <sup>b</sup>  | < 0.50  | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Chromium <sup>b</sup> | 2.8     | 0.50  | mg/kg | 5  | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Lead <sup>b</sup>     | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Mercury               | < 0.040 | 0.040 | mg/kg | 1  | 05/13/14 | 05/14/14 EB | SW846 7471A <sup>2</sup> | SW846 7471A <sup>4</sup> |
| Selenium <sup>b</sup> | < 4.0   | 4.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |
| Silver <sup>b</sup>   | < 2.0   | 2.0   | mg/kg | 20 | 05/13/14 | 05/14/14 RS | SW846 6010B <sup>1</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA3953

(2) Instrument QC Batch: MA3956

(3) Prep QC Batch: MP7824

(4) Prep QC Batch: MP7835

(a) All results reported on a wet weight basis.

(b) Elevated reporting limit(s) due to matrix interference and/or dilution required for high interfering element.

RL = Reporting Limit

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

Page 1 of 3

[illegible]

## 4 4.1

Page 1 of 5





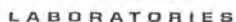
2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

Page 2 of 3

[illegible]

## 4

146 of 208  
ACCUTEST.  
C33923 LABORATORIES



2105 Lundy Ave. San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

Page 3 of 3

|                                 |                             |
|---------------------------------|-----------------------------|
| FED-EX Tracking #               | Bottle Order Control #      |
| Accutest Quote # SPH12_2012_170 | Accutest NC Job #: C 033923 |

[illegible]

Page 3 of 5



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C33923

Client: ENVIROSERVICES & TRAINING CENTER

Project: KAHULUI HARBOR

Date / Time Received: 5/8/2014

Delivery Method: FedEx

Airbill #s: 803625272977

Cooler Temps (Initial/Adjusted): #1: (1.7/1.7); #2: (1.6/1.6);

### Cooler Security

|                           | Y                        | or | N                                   |                       | Y                                   | or | N                        |
|---------------------------|--------------------------|----|-------------------------------------|-----------------------|-------------------------------------|----|--------------------------|
| 1. Custody Seals Present: | <input type="checkbox"/> |    | <input checked="" type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input type="checkbox"/> |    | <input type="checkbox"/>            | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |

### Cooler Temperature

|                              | Y                                   | or | N                        |
|------------------------------|-------------------------------------|----|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |    |                          |
| 3. Cooler media:             | Ice (Bag)                           |    |                          |
| 4. No. Coolers               | 2                                   |    |                          |

### Quality Control Preservation

|                                 | Y                                   | N                        | N/A                                 |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### Sample Integrity - Documentation

|                                        | Y                                   | or | N                        |
|----------------------------------------|-------------------------------------|----|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |

### Sample Integrity - Condition

|                                  | Y                                   | or | N                                   |
|----------------------------------|-------------------------------------|----|-------------------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |
| 2. All containers accounted for: | <input type="checkbox"/>            |    | <input checked="" type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |    |                                     |

### Sample Integrity - Instructions

|                                           | Y                                   | N                                   | N/A                                 |
|-------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments Sample 15(2003 SS15) came in a ziplock bag. NO TERRACORE KIT.



## Sample Receipt Summary - Problem Resolution

Accutest Job Number: C33923

CSR: Nutan Kabir

Response Date: 5/12/2014

**Response:** Per client's response this sample SS15 is MI sample and should be analyzed similar to the other MI samples (Sharla 5/9/14)

4.1

4

Accutest Laboratories  
V: 408.588.0200

2105 Lundy Avenue  
F: 408.588.0201

San Jose, CA 95131  
www.accutest.com

**C33923: Chain of Custody**  
**Page 5 of 5**



## GC/MS Volatiles

5

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VL1011-MB | L32856.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-20, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 1868-53-7 | Dibromofluoromethane | 98% 70-130% |
| 2037-26-5 | Toluene-D8           | 96% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 97% 70-130% |

## Method Blank Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VM1390-MB | M46036.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-16, C33923-17, C33923-18, C33923-19

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 108% 70-130% |
| 2037-26-5 | Toluene-D8           | 109% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 102% 70-130% |

5.1.2  
5

## Method Blank Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-MB | M46059.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-21

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 100-41-4  | Ethylbenzene            | ND     | 5.0 | 0.50 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 5.0 | 1.0  | ug/kg |   |
| 108-88-3  | Toluene                 | ND     | 5.0 | 0.50 | ug/kg |   |
| 1330-20-7 | Xylene (total)          | ND     | 10  | 1.0  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 107% 70-130% |
| 2037-26-5 | Toluene-D8           | 110% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 106% 70-130% |



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VL1011-BS  | L32853.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| VL1011-BSD | L32854.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-20, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 41.0         | 103      | 41.1         | 103      | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 37.3         | 93       | 37.3         | 93       | 0   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 44.6         | 112      | 43.9         | 110      | 2   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 37.2         | 93       | 37.6         | 94       | 1   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 116          | 97       | 115          | 96       | 1   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 109% | 107% | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%  | 95%  | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 101% | 99%  | 70-130% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1390-BS  | M46033.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| VM1390-BSD | M46034.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-16, C33923-17, C33923-18, C33923-19

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 42.4         | 106      | 41.8         | 105      | 1   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 41.0         | 103      | 41.2         | 103      | 0   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 44.6         | 112      | 42.8         | 107      | 4   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 40.4         | 101      | 41.0         | 103      | 1   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 123          | 103      | 126          | 105      | 2   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 108% | 105% | 70-130% |
| 2037-26-5 | Toluene-D8           | 104% | 106% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 104% | 104% | 70-130% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-BS  | M46055.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| VM1391-BSD | M46056.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-21

| CAS No.   | Compound                | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 40             | 42.6         | 107      | 42.4         | 106      | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | 40             | 43.4         | 109      | 41.4         | 104      | 5   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | 40             | 46.5         | 116      | 45.1         | 113      | 3   | 79-127/19         |
| 108-88-3  | Toluene                 | 40             | 42.9         | 107      | 41.6         | 104      | 3   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | 120            | 130          | 108      | 125          | 104      | 4   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 109% | 107% | 70-130% |
| 2037-26-5 | Toluene-D8           | 106% | 104% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 107% | 104% | 70-130% |

\* = Outside of Control Limits.

## Laboratory Control Sample Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VL1011-LCS | L32855.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-20, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound | Spike<br>ug/kg | LCS<br>ug/kg | LCS<br>% | Limits |
|---------|----------|----------------|--------------|----------|--------|
|---------|----------|----------------|--------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 105% | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%  | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 97%  | 70-130% |

\* = Outside of Control Limits.



## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1390-LCS | M46035.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-16, C33923-17, C33923-18, C33923-19

| CAS No. | Compound | Spike<br>ug/kg | LCS<br>ug/kg | LCS<br>% | Limits |
|---------|----------|----------------|--------------|----------|--------|
|---------|----------|----------------|--------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 108% | 70-130% |
| 2037-26-5 | Toluene-D8           | 110% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105% | 70-130% |

\* = Outside of Control Limits.

## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| VM1391-LCS | M46058.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-21

| CAS No. | Compound | Spike<br>ug/kg | LCS<br>ug/kg | LCS<br>% | Limits |
|---------|----------|----------------|--------------|----------|--------|
|---------|----------|----------------|--------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 107% | 70-130% |
| 2037-26-5 | Toluene-D8           | 108% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103% | 70-130% |

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| C33926-6MS  | L32866.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| C33926-6MSD | L32867.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |
| C33926-6    | L32865.D | 1  | 05/08/14 | XB | n/a       | n/a        | VL1011           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-20, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.   | Compound                | C33926-6<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 39.7           | 33.1        | 83      | 39.8           | 32.5         | 82       | 2   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 39.7           | 33.3        | 84      | 39.8           | 32.4         | 81       | 3   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 39.7           | 40.8        | 103     | 39.8           | 40.5         | 102      | 1   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 39.7           | 32.5        | 82      | 39.8           | 32.2         | 81       | 1   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 119            | 96.6        | 81      | 119            | 94.4         | 79* a    | 2   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33926-6 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 110% | 110% | 112%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 94%  | 94%  | 93%      | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 103% | 102% | 98%      | 70-130% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| C33917-4MS  | M46041.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| C33917-4MSD | M46042.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |
| C33917-4    | M46037.D | 1  | 05/08/14 | XB | n/a       | n/a        | VM1390           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-16, C33923-17, C33923-18, C33923-19

| CAS No.   | Compound                | C33917-4<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 39.4           | 33.0        | 84      | 39.5           | 33.1         | 84       | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 39.4           | 38.2        | 97      | 39.5           | 38.6         | 98       | 1   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 39.4           | 43.2        | 110     | 39.5           | 43.8         | 111      | 1   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 39.4           | 35.8        | 91      | 39.5           | 36.5         | 92       | 2   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 118            | 109         | 92      | 119            | 109          | 92       | 0   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33917-4 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 114% | 111% | 107%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 105% | 103% | 109%     | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 107% | 103% | 104%     | 70-130% |

\* = Outside of Control Limits.



## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample                | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|----------|----|----------|----|-----------|------------|------------------|
| C33944-5MS            | M46069.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| C33944-5MSD           | M46070.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |
| C33944-5 <sup>a</sup> | M46068.D | 1  | 05/09/14 | XB | n/a       | n/a        | VM1391           |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33923-21

| CAS No.   | Compound                | C33944-5<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND                |   | 1940           | 1630        | 84      | 1940           | 1630         | 84       | 0   | 81-119/20         |
| 100-41-4  | Ethylbenzene            | ND                |   | 1940           | 1950        | 100     | 1940           | 1940         | 100      | 1   | 80-119/21         |
| 1634-04-4 | Methyl Tert Butyl Ether | ND                |   | 1940           | 2060        | 106     | 1940           | 2030         | 105      | 1   | 79-127/19         |
| 108-88-3  | Toluene                 | ND                |   | 1940           | 1800        | 93      | 1940           | 1800         | 93       | 0   | 80-117/21         |
| 1330-20-7 | Xylene (total)          | ND                |   | 5830           | 5480        | 94      | 5830           | 5410         | 93       | 1   | 81-122/22         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33944-5 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 115% | 110% | 110%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 106% | 106% | 107%     | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 112% | 108% | 106%     | 70-130% |

(a) 4:1 composite.

\* = Outside of Control Limits.

## GC/MS Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| OP9999-MB | X36356.D | 1  | 05/13/14 | AA | 05/07/14  | OP9999     | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 4165-60-0 | Nitrobenzene-d5      | 86% 13-123%  |
| 321-60-8  | 2-Fluorobiphenyl     | 91% 17-126%  |
| 1718-51-0 | Terphenyl-d14        | 114% 51-146% |

6.1.1  
6

## Method Blank Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP10029-MB | X36472.D | 1  | 05/15/14 | AA | 05/13/14  | OP10029    | EX1591           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.  | Compound               | Result | RL  | MDL  | Units | Q |
|----------|------------------------|--------|-----|------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 17  | 1.7  | ug/kg |   |
| 208-96-8 | Acenaphthylene         | ND     | 17  | 1.7  | ug/kg |   |
| 120-12-7 | Anthracene             | ND     | 17  | 1.7  | ug/kg |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 3.3 | 0.83 | ug/kg |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 3.3 | 0.57 | ug/kg |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 3.3 | 0.67 | ug/kg |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 3.3 | 0.73 | ug/kg |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 3.3 | 0.77 | ug/kg |   |
| 218-01-9 | Chrysene               | ND     | 3.3 | 0.67 | ug/kg |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 3.3 | 0.93 | ug/kg |   |
| 206-44-0 | Fluoranthene           | ND     | 17  | 1.7  | ug/kg |   |
| 86-73-7  | Fluorene               | ND     | 17  | 1.7  | ug/kg |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 3.3 | 0.83 | ug/kg |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 17  | 3.3  | ug/kg |   |
| 91-20-3  | Naphthalene            | ND     | 17  | 3.3  | ug/kg |   |
| 85-01-8  | Phenanthrene           | ND     | 17  | 1.7  | ug/kg |   |
| 129-00-0 | Pyrene                 | ND     | 17  | 1.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 4165-60-0 | Nitrobenzene-d5      | 84% 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 88% 17-126% |
| 1718-51-0 | Terphenyl-d14        | 88% 51-146% |



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP9999-BS  | X36256.D | 1  | 05/07/14 | MT | 05/07/14  | OP9999     | EX1584           |
| OP9999-BSD | X36257.D | 1  | 05/08/14 | MT | 05/07/14  | OP9999     | EX1584           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.  | Compound               | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 167            | 174          | 104* a   | 165          | 99       | 5   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | 167            | 154          | 92       | 150          | 90       | 3   | 52-105/32         |
| 120-12-7 | Anthracene             | 167            | 153          | 92       | 146          | 88       | 5   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | 167            | 153          | 92       | 165          | 99       | 8   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | 167            | 151          | 91       | 151          | 91       | 0   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | 167            | 203          | 122      | 193          | 116      | 5   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 167            | 168          | 101      | 154          | 92       | 9   | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | 167            | 195          | 117      | 191          | 115      | 2   | 78-120/25         |
| 218-01-9 | Chrysene               | 167            | 183          | 110      | 180          | 108      | 2   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | 167            | 174          | 104      | 159          | 95       | 9   | 69-128/26         |
| 206-44-0 | Fluoranthene           | 167            | 171          | 103      | 172          | 103      | 1   | 70-109/28         |
| 86-73-7  | Fluorene               | 167            | 184          | 110* a   | 178          | 107* a   | 3   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 167            | 178          | 107      | 169          | 101      | 5   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | 167            | 162          | 97* a    | 154          | 92       | 5   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | 167            | 150          | 90       | 145          | 87       | 3   | 53-102/32         |
| 91-20-3  | Naphthalene            | 167            | 157          | 94       | 145          | 87       | 8   | 49-98/31          |
| 85-01-8  | Phenanthrene           | 167            | 179          | 107* a   | 169          | 101      | 6   | 55-104/30         |
| 129-00-0 | Pyrene                 | 167            | 184          | 110* a   | 158          | 95       | 15  | 67-108/29         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 91%  | 86%  | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 101% | 96%  | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 112% | 101% | 51-146% |

(a) Outside of in-house control limits; but within the method control limits. AZ:L1

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10029-BS  | X36492.D | 1  | 05/15/14 | AA | 05/13/14  | OP10029    | EX1591           |
| OP10029-BSD | X36493.D | 1  | 05/15/14 | AA | 05/13/14  | OP10029    | EX1591           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.  | Compound               | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 167            | 144          | 86       | 141          | 85       | 2   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | 167            | 142          | 85       | 138          | 83       | 3   | 52-105/32         |
| 120-12-7 | Anthracene             | 167            | 146          | 88       | 141          | 85       | 3   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | 167            | 153          | 92       | 150          | 90       | 2   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | 167            | 138          | 83       | 134          | 80       | 3   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | 167            | 177          | 106      | 178          | 107      | 1   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 167            | 134          | 80       | 129          | 77       | 4   | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | 167            | 171          | 103      | 167          | 100      | 2   | 78-120/25         |
| 218-01-9 | Chrysene               | 167            | 163          | 98       | 161          | 97       | 1   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | 167            | 132          | 79       | 124          | 74       | 6   | 69-128/26         |
| 206-44-0 | Fluoranthene           | 167            | 164          | 98       | 165          | 99       | 1   | 70-109/28         |
| 86-73-7  | Fluorene               | 167            | 153          | 92       | 151          | 91       | 1   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 167            | 132          | 79       | 128          | 77       | 3   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | 167            | 137          | 82       | 134          | 80       | 2   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | 167            | 138          | 83       | 135          | 81       | 2   | 53-102/32         |
| 91-20-3  | Naphthalene            | 167            | 132          | 79       | 129          | 77       | 2   | 49-98/31          |
| 85-01-8  | Phenanthrene           | 167            | 151          | 91       | 148          | 89       | 2   | 55-104/30         |
| 129-00-0 | Pyrene                 | 167            | 165          | 99       | 165          | 99       | 0   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 83%  | 81%  | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%  | 85%  | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 104% | 105% | 51-146% |

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP9999-MS  | X36262.D | 1  | 05/08/14 | MT | 05/07/14  | OP9999     | EX1584           |
| OP9999-MSD | X36263.D | 1  | 05/08/14 | MT | 05/07/14  | OP9999     | EX1584           |
| C33876-1   | X36260.D | 1  | 05/08/14 | MT | 05/07/14  | OP9999     | EX1584           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No.  | Compound               | C33876-1<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | ND                |   | 166            | 170         | 102     | 166            | 172          | 104* a   | 1   | 51-102/33         |
| 208-96-8 | Acenaphthylene         | ND                |   | 166            | 163         | 98      | 166            | 164          | 99       | 1   | 52-105/32         |
| 120-12-7 | Anthracene             | ND                |   | 166            | 156         | 94      | 166            | 158          | 95       | 1   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | ND                |   | 166            | 193         | 116* b  | 166            | 194          | 117* b   | 1   | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | ND                |   | 166            | 159         | 96      | 166            | 162          | 98       | 2   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | ND                |   | 166            | 193         | 116     | 166            | 189          | 114      | 2   | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 0.80              | J | 166            | 159         | 95      | 166            | 167          | 100      | 5   | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | ND                |   | 166            | 153         | 92      | 166            | 161          | 97       | 5   | 78-120/25         |
| 218-01-9 | Chrysene               | ND                |   | 166            | 182         | 110     | 166            | 186          | 112* b   | 2   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | ND                |   | 166            | 170         | 102     | 166            | 177          | 107      | 4   | 69-128/26         |
| 206-44-0 | Fluoranthene           | ND                |   | 166            | 166         | 100     | 166            | 167          | 101      | 1   | 70-109/28         |
| 86-73-7  | Fluorene               | ND                |   | 166            | 180         | 108* a  | 166            | 183          | 110* a   | 2   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND                |   | 166            | 185         | 111     | 166            | 189          | 114      | 2   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | ND                |   | 166            | 166         | 100* a  | 166            | 167          | 101* a   | 1   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | ND                |   | 166            | 159         | 96      | 166            | 161          | 97       | 1   | 53-102/32         |
| 91-20-3  | Naphthalene            | ND                |   | 166            | 154         | 93      | 166            | 155          | 93       | 1   | 49-98/31          |
| 85-01-8  | Phenanthrene           | ND                |   | 166            | 170         | 102     | 166            | 173          | 104      | 2   | 55-104/30         |
| 129-00-0 | Pyrene                 | ND                |   | 166            | 187         | 113* a  | 166            | 190          | 114* a   | 2   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33876-1 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 106% | 107% | 96%      | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 111% | 112% | 101%     | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 131% | 132% | 129%     | 51-146% |

(a) Outside laboratory control limits. AZ:L1

(b) Outside laboratory control limits. AZ:M1

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui,HI

| Sample                   | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------------------|----------|----|----------|----|-----------|------------|------------------|
| OP10029-MS <sup>a</sup>  | T14200.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| OP10029-MSD <sup>a</sup> | T14201.D | 20 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |
| C33923-1 <sup>a</sup>    | T14199.D | 10 | 05/20/14 | MT | 05/13/14  | OP10029    | ET629            |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.  | Compound               | C33923-1<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>%           | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>%         | RPD | Limits<br>Rec/RPD |
|----------|------------------------|-------------------|---|----------------|-------------|-------------------|----------------|--------------|------------------|-----|-------------------|
| 83-32-9  | Acenaphthene           | ND                |   | 166            | 145         | 87                | 166            | 125          | 75               | 15  | 51-102/33         |
| 208-96-8 | Acenaphthylene         | ND                |   | 166            | 142         | 85                | 166            | 136          | 82               | 4   | 52-105/32         |
| 120-12-7 | Anthracene             | ND                |   | 166            | 165         | 99                | 166            | 154          | 93               | 7   | 65-105/29         |
| 56-55-3  | Benzo(a)anthracene     | 69.7              |   | 166            | 238         | 101               | 166            | 215          | 87               | 10  | 77-115/25         |
| 50-32-8  | Benzo(a)pyrene         | 98.3              |   | 166            | 228         | 78                | 166            | 214          | 70* <sup>b</sup> | 6   | 76-124/27         |
| 205-99-2 | Benzo(b)fluoranthene   | 189               |   | 166            | 384         | 117               | 166            | 341          | 91               | 12  | 79-123/26         |
| 191-24-2 | Benzo(g,h,i)perylene   | 90.0              |   | 166            | 220         | 78                | 166            | 198          | 65* <sup>b</sup> | 11  | 70-125/27         |
| 207-08-9 | Benzo(k)fluoranthene   | 101               |   | 166            | 250         | 90                | 166            | 248          | 88               | 1   | 78-120/25         |
| 218-01-9 | Chrysene               | 157               |   | 166            | 312         | 93                | 166            | 289          | 79               | 8   | 79-111/24         |
| 53-70-3  | Dibenzo(a,h)anthracene | 17.9              | J | 166            | 163         | 87                | 166            | 133          | 69               | 20  | 69-128/26         |
| 206-44-0 | Fluoranthene           | 284               |   | 166            | 465         | 109               | 166            | 413          | 78               | 12  | 70-109/28         |
| 86-73-7  | Fluorene               | ND                |   | 166            | 140         | 84                | 166            | 143          | 86               | 2   | 52-105/32         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 92.8              |   | 166            | 226         | 80                | 166            | 215          | 73               | 5   | 72-122/27         |
| 90-12-0  | 1-Methylnaphthalene    | ND                |   | 166            | 131         | 79                | 166            | 126          | 76               | 4   | 49-96/33          |
| 91-57-6  | 2-Methylnaphthalene    | ND                |   | 166            | 129         | 78                | 166            | 119          | 72               | 8   | 53-102/32         |
| 91-20-3  | Naphthalene            | ND                |   | 166            | 123         | 74                | 166            | 117          | 70               | 5   | 49-98/31          |
| 85-01-8  | Phenanthrene           | 84.7              | J | 166            | 230         | 87                | 166            | 215          | 78               | 7   | 55-104/30         |
| 129-00-0 | Pyrene                 | 218               | J | 166            | 402         | 111* <sup>c</sup> | 166            | 368          | 90               | 9   | 67-108/29         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33923-1 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 71%  | 66%  | 68%      | 13-123% |
| 321-60-8  | 2-Fluorobiphenyl     | 82%  | 80%  | 75%      | 17-126% |
| 1718-51-0 | Terphenyl-d14        | 119% | 108% | 109%     | 51-146% |

(a) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous).

(b) Outside control limits due to matrix interference/dilution. AZ:M2

(c) Outside control limits due to matrix interference/dilution. AZ:M1

\* = Outside of Control Limits.



## GC Volatiles

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## QC Data Summaries

7

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1800-MB | JK43987.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound         | Result | RL   | MDL   | Units | Q |
|---------|------------------|--------|------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.10 | 0.050 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits       |
|---------|----------------------|--------------|
| 98-08-8 | aaa-Trifluorotoluene | 111% 60-115% |

7.1.1

7

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1800-BS  | JK43988.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| GJK1800-BSD | JK43989.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | 0.5            | 0.413        | 83       | 0.407        | 81       | 1   | 76-127/32         |

| CAS No. | Surrogate Recoveries | BSP  | BSD  | Limits  |
|---------|----------------------|------|------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 103% | 102% | 60-115% |

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| C33923-16MS  | JK43991.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| C33923-16MSD | JK43992.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |
| C33923-16    | JK43990.D | 1  | 05/12/14 | TN | n/a       | n/a        | GJK1800          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound         | C33923-16<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                 | 0.492          | 0.395       | 80      | 0.487          | 0.393        | 81       | 1   | 76-127/32         |

| CAS No. | Surrogate Recoveries | MS   | MSD  | C33923-16 | Limits  |
|---------|----------------------|------|------|-----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 102% | 103% | 103%      | 60-115% |

\* = Outside of Control Limits.



## GC Semi-volatiles

### QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10003-MB | MM021706.D | 1  | 05/07/14 | RV | 05/07/14  | OP10003    | GMM643           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 877-09-8  | Tetrachloro-m-xylene | 110% 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 117% 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 125% 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 135% 53-145% |

8.1.1  
8

## Method Blank Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-MB | MM021754.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-24, C33923-25, C33923-26

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin                    | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC                 | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC                  | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC                 | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane)       | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane                 | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin                  | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD                  | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE <sup>a</sup>     | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT <sup>a</sup>     | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin                    | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde           | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I              | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II             | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate        | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor                | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide        | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor <sup>a</sup> | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene                 | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 96%    | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 106%   | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 113%   | 53-145% |

(a) Results from signal #2.

8.1.2  
8

## Method Blank Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10030-MB | MM021916.D | 1  | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.    | Compound            | Result | RL  | MDL  | Units | Q |
|------------|---------------------|--------|-----|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 3.3 | 0.40 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 3.3 | 0.37 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 3.3 | 0.80 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 3.3 | 0.40 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 3.3 | 0.40 | ug/kg |   |
| 12789-03-6 | Chlordane           | ND     | 3.3 | 3.3  | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 3.3 | 0.60 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 3.3 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 3.3 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 3.3 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 3.3 | 0.60 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 3.3 | 0.57 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 3.3 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 3.3 | 0.57 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 3.3 | 0.47 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 3.3 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 3.3 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 3.3 | 6.7  | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 877-09-8  | Tetrachloro-m-xylene | 89% 49-127%  |
| 877-09-8  | Tetrachloro-m-xylene | 95% 49-127%  |
| 2051-24-3 | Decachlorobiphenyl   | 101% 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 99% 53-145%  |

8.1.3

8



## Method Blank Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-MB | HH312946.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 630-01-3 | Hexacosane           | 105% 37-122% |

8.1.4

8

## Method Blank Summary

Page 1 of 1

**Job Number:** C33923  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10027-MB | HH313102.D | 1  | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No. | Compound        | Result | RL  | MDL  | Units | Q |
|---------|-----------------|--------|-----|------|-------|---|
|         | TPH (C10-C28)   | ND     | 3.3 | 0.83 | mg/kg |   |
|         | TPH (> C28-C40) | ND     | 6.7 | 1.7  | mg/kg |   |

| CAS No.  | Surrogate Recoveries | Limits      |
|----------|----------------------|-------------|
| 630-01-3 | Hexacosane           | 96% 37-122% |

8.1.5  
8

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui,HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10003-BS  | MM021707.D | 1  | 05/07/14 | RV | 05/07/14  | OP10003    | GMM643           |
| OP10003-BSD | MM021708.D | 1  | 05/07/14 | RV | 05/07/14  | OP10003    | GMM643           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | 33.3           | 35.5         | 107      | 34.0         | 102      | 4   | 74-124/20         |
| 319-84-6   | alpha-BHC           | 33.3           | 39.5         | 119      | 37.2         | 112      | 6   | 70-127/20         |
| 319-85-7   | beta-BHC            | 33.3           | 39.3         | 118      | 37.7         | 113      | 4   | 76-137/20         |
| 319-86-8   | delta-BHC           | 33.3           | 37.7         | 113      | 35.1         | 105      | 7   | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | 33.3           | 39.6         | 119      | 37.0         | 111      | 7   | 75-130/20         |
| 60-57-1    | Dieldrin            | 33.3           | 40.9         | 123      | 38.3         | 115      | 7   | 75-135/13         |
| 72-54-8    | 4,4'-DDD            | 33.3           | 41.9         | 126      | 38.7         | 116      | 8   | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | 33.3           | 35.8         | 107      | 32.8         | 98       | 9   | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | 33.3           | 37.3         | 112      | 34.3         | 103      | 8   | 66-129/20         |
| 72-20-8    | Endrin              | 33.3           | 42.8         | 128      | 39.4         | 118      | 8   | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | 33.3           | 40.8         | 122      | 38.4         | 115      | 6   | 71-133/20         |
| 959-98-8   | Endosulfan-I        | 33.3           | 42.1         | 126      | 39.6         | 119      | 6   | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | 33.3           | 41.5         | 125      | 38.5         | 116      | 8   | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | 33.3           | 45.0         | 135      | 41.3         | 124      | 9   | 69-137/20         |
| 76-44-8    | Heptachlor          | 33.3           | 40.7         | 122      | 38.0         | 114      | 7   | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | 33.3           | 39.8         | 119      | 37.3         | 112      | 6   | 79-127/20         |
| 72-43-5    | Methoxychlor        | 33.3           | 40.2         | 121      | 37.4         | 112      | 7   | 70-137/20         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 109% | 100% | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 123% | 115% | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 132% | 125% | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 139% | 127% | 53-145% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui,HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-BS  | MM021755.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |
| OP10010-BSD | MM021756.D | 1  | 05/09/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-24, C33923-25, C33923-26

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>%         | BSD<br>ug/kg | BSD<br>%         | RPD            | Limits<br>Rec/RPD |
|------------|---------------------|----------------|--------------|------------------|--------------|------------------|----------------|-------------------|
| 309-00-2   | Aldrin              | 33.3           | 30.0         | 90               | 30.1         | 90               | 0              | 74-124/20         |
| 319-84-6   | alpha-BHC           | 33.3           | 32.8         | 98               | 32.1         | 96               | 2              | 70-127/20         |
| 319-85-7   | beta-BHC            | 33.3           | 31.8         | 95               | 31.9         | 96               | 0              | 76-137/20         |
| 319-86-8   | delta-BHC           | 33.3           | 31.8         | 95               | 31.7         | 95               | 0              | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | 33.3           | 32.9         | 99               | 32.8         | 98               | 0              | 75-130/20         |
| 60-57-1    | Dieldrin            | 33.3           | 32.2         | 97               | 32.1         | 96               | 0              | 75-135/13         |
| 72-54-8    | 4,4'-DDD            | 33.3           | 32.4         | 97               | 31.7         | 95               | 2              | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | 33.3           | 33.9         | 102 <sup>a</sup> | 32.1         | 96 <sup>a</sup>  | 5 <sup>a</sup> | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | 33.3           | 33.0         | 99 <sup>a</sup>  | 31.5         | 95 <sup>a</sup>  | 5 <sup>a</sup> | 66-129/20         |
| 72-20-8    | Endrin              | 33.3           | 31.9         | 96               | 31.3         | 94               | 2              | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | 33.3           | 34.1         | 102              | 34.3         | 103              | 1              | 71-133/20         |
| 959-98-8   | Endosulfan-I        | 33.3           | 33.2         | 100              | 33.3         | 100              | 0              | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | 33.3           | 33.4         | 100              | 32.8         | 98               | 2              | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | 33.3           | 37.9         | 114              | 37.9         | 114              | 0              | 69-137/20         |
| 76-44-8    | Heptachlor          | 33.3           | 33.3         | 100              | 33.4         | 100              | 0              | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | 33.3           | 31.6         | 95               | 31.7         | 95               | 0              | 79-127/20         |
| 72-43-5    | Methoxychlor        | 33.3           | 34.4         | 103 <sup>a</sup> | 35.9         | 108 <sup>a</sup> | 4 <sup>a</sup> | 70-137/20         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 94%  | 97%  | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 106% | 105% | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 111% | 106% | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 116% | 110% | 53-145% |

(a) Results from signal #2.

\* = Outside of Control Limits.



## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui,HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10030-BS  | MM021917.D | 1  | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |
| OP10030-BSD | MM021918.D | 1  | 05/13/14 | RV | 05/13/14  | OP10030    | GMM649           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | BSD<br>ug/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | 33.3           | 27.3         | 82       | 27.5         | 83       | 1   | 74-124/20         |
| 319-84-6   | alpha-BHC           | 33.3           | 30.7         | 92       | 31.4         | 94       | 2   | 70-127/20         |
| 319-85-7   | beta-BHC            | 33.3           | 34.1         | 102      | 34.6         | 104      | 1   | 76-137/20         |
| 319-86-8   | delta-BHC           | 33.3           | 34.7         | 104      | 35.3         | 106      | 2   | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | 33.3           | 33.4         | 100      | 33.9         | 102      | 1   | 75-130/20         |
| 60-57-1    | Dieldrin            | 33.3           | 34.3         | 103      | 34.9         | 105      | 2   | 75-135/13         |
| 72-54-8    | 4,4'-DDD            | 33.3           | 36.7         | 110      | 37.1         | 111      | 1   | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | 33.3           | 35.0         | 105      | 35.4         | 106      | 1   | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | 33.3           | 33.4         | 100      | 34.5         | 104      | 3   | 66-129/20         |
| 72-20-8    | Endrin              | 33.3           | 33.3         | 100      | 34.2         | 103      | 3   | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | 33.3           | 34.6         | 104      | 34.7         | 104      | 0   | 71-133/20         |
| 959-98-8   | Endosulfan-I        | 33.3           | 31.4         | 94       | 32.0         | 96       | 2   | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | 33.3           | 33.7         | 101      | 34.1         | 102      | 1   | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | 33.3           | 36.2         | 109      | 35.8         | 107      | 1   | 69-137/20         |
| 76-44-8    | Heptachlor          | 33.3           | 31.6         | 95       | 32.3         | 97       | 2   | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | 33.3           | 33.4         | 100      | 34.1         | 102      | 2   | 79-127/20         |
| 72-43-5    | Methoxychlor        | 33.3           | 32.6         | 98       | 33.0         | 99       | 1   | 70-137/20         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%  | 90%  | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 93%  | 94%  | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 103% | 107% | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 100% | 102% | 53-145% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-BS  | HH312954.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| OP10009-BSD | HH312955.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound        | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 33.3           | 28.6         | 86       | 29.2         | 88       | 2   | 39-102/29         |
|         | TPH (> C28-C40) | 33.3           | 34.6         | 104      | 35.1         | 105      | 1   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | BSP  | BSD  | Limits  |
|----------|----------------------|------|------|---------|
| 630-01-3 | Hexacosane           | 109% | 109% | 37-122% |

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10027-BS  | HH313071.D | 1  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |
| OP10027-BSD | HH313072.D | 1  | 05/13/14 | AG | 05/13/14  | OP10027    | GHH1258          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No. | Compound        | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | BSD<br>mg/kg | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|----------------|--------------|----------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 33.3           | 27.4         | 82       | 26.6         | 80       | 3   | 39-102/29         |
|         | TPH (> C28-C40) | 33.3           | 34.8         | 104      | 33.4         | 100      | 4   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | BSP  | BSD  | Limits  |
|----------|----------------------|------|------|---------|
| 630-01-3 | Hexacosane           | 110% | 114% | 37-122% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui,HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10003-MS  | MM021704.D | 10 | 05/07/14 | RV | 05/07/14  | OP10003    | GMM643           |
| OP10003-MSD | MM021705.D | 10 | 05/07/14 | RV | 05/07/14  | OP10003    | GMM643           |
| C33898-12   | MM021731.D | 1  | 05/08/14 | RV | 05/07/14  | OP10003    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23

| CAS No.    | Compound            | C33898-12<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 |   | 33.1           | 27.6        | 83      | 33.1           | 28.8         | 87       | 4   | 74-124/20         |
| 319-84-6   | alpha-BHC           | ND                 |   | 33.1           | 27.0        | 81      | 33.1           | 27.1         | 82       | 0   | 70-127/20         |
| 319-85-7   | beta-BHC            | ND                 |   | 33.1           | 28.3        | 85      | 33.1           | 27.7         | 84       | 2   | 76-137/20         |
| 319-86-8   | delta-BHC           | ND                 |   | 33.1           | 25.4        | 77      | 33.1           | 24.6         | 74       | 3   | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 |   | 33.1           | 27.9        | 84      | 33.1           | 27.8         | 84       | 0   | 75-130/20         |
| 60-57-1    | Dieldrin            | ND                 |   | 33.1           | 31.6        | 95      | 33.1           | 31.7         | 96       | 0   | 45-132/24         |
| 72-54-8    | 4,4'-DDD            | ND                 |   | 33.1           | 28.7        | 87      | 33.1           | 29.3         | 88       | 2   | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | ND                 |   | 33.1           | 25.1        | 76      | 33.1           | 24.6         | 74       | 2   | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | ND                 |   | 33.1           | 19.2        | 58*     | 33.1           | 20.2         | 61*      | 5   | 66-129/20         |
| 72-20-8    | Endrin              | ND                 |   | 33.1           | 32.4        | 98      | 33.1           | 32.6         | 98       | 1   | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | ND                 |   | 33.1           | 26.4        | 80      | 33.1           | 25.8         | 78       | 2   | 71-133/20         |
| 959-98-8   | Endosulfan-I        | ND                 |   | 33.1           | 32.9        | 99      | 33.1           | 29.8         | 90       | 10  | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | ND                 |   | 33.1           | 27.7        | 84      | 33.1           | 28.6         | 86       | 3   | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | ND                 |   | 33.1           | 30.7        | 93      | 33.1           | 32.1         | 97       | 4   | 69-137/20         |
| 76-44-8    | Heptachlor          | ND                 |   | 33.1           | 29.9        | 90      | 33.1           | 29.5         | 89       | 1   | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | ND                 |   | 33.1           | 31.0        | 94      | 33.1           | 31.2         | 94       | 1   | 79-127/20         |
| 72-43-5    | Methoxychlor        | ND                 |   | 33.1           | 24.0        | 72      | 33.1           | 24.6         | 74       | 2   | 70-137/20         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33898-12 | Limits  |
|-----------|----------------------|------|------|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 81%  | 87%  | 89%       | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 92%  | 90%  | 110%      | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 114% | 108% | 107%      | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 125% | 124% | 108%      | 53-145% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample                | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|------------|----|----------|----|-----------|------------|------------------|
| OP10010-MS            | MM021749.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| OP10010-MSD           | MM021750.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |
| C33928-7 <sup>a</sup> | MM021748.D | 10 | 05/08/14 | RV | 05/08/14  | OP10010    | GMM644           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-24, C33923-25, C33923-26

| CAS No.    | Compound            | C33928-7<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>%         | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>%        | RPD             | Limits<br>Rec/RPD |
|------------|---------------------|-------------------|---|----------------|-------------|-----------------|----------------|--------------|-----------------|-----------------|-------------------|
| 309-00-2   | Aldrin              | ND                |   | 33.1           | 25.6        | 77              | 33.1           | 26.2         | 79              | 2               | 74-124/20         |
| 319-84-6   | alpha-BHC           | ND                |   | 33.1           | 25.3        | 76              | 33.1           | 25.4         | 77              | 0               | 70-127/20         |
| 319-85-7   | beta-BHC            | ND                |   | 33.1           | 25.2        | 76              | 33.1           | 25.3         | 76              | 0               | 76-137/20         |
| 319-86-8   | delta-BHC           | ND                |   | 33.1           | 22.9        | 69              | 33.1           | 23.0         | 69              | 0               | 69-132/20         |
| 58-89-9    | gamma-BHC (Lindane) | ND                |   | 33.1           | 25.0        | 75              | 33.1           | 25.3         | 76              | 1               | 75-130/20         |
| 60-57-1    | Dieldrin            | ND                |   | 33.1           | 28.4        | 86              | 33.1           | 26.6         | 80              | 7               | 45-132/24         |
| 72-54-8    | 4,4'-DDD            | ND                |   | 33.1           | 26.8        | 81              | 33.1           | 27.2         | 82              | 1               | 74-134/20         |
| 72-55-9    | 4,4'-DDE            | ND                |   | 33.1           | 25.4        | 77 <sup>b</sup> | 33.1           | 24.4         | 74 <sup>b</sup> | 4 <sup>b</sup>  | 73-131/20         |
| 50-29-3    | 4,4'-DDT            | ND                |   | 33.1           | 23.6        | 71 <sup>b</sup> | 33.1           | 22.3         | 67 <sup>b</sup> | 6 <sup>b</sup>  | 66-129/20         |
| 72-20-8    | Endrin              | ND                |   | 33.1           | 32.3        | 97              | 33.1           | 30.8         | 93              | 5               | 80-143/20         |
| 7421-93-4  | Endrin aldehyde     | ND                |   | 33.1           | 26.5        | 80              | 33.1           | 25.2         | 76              | 5               | 71-133/20         |
| 959-98-8   | Endosulfan-I        | ND                |   | 33.1           | 27.2        | 82              | 33.1           | 26.9         | 81              | 1               | 77-135/20         |
| 33213-65-9 | Endosulfan-II       | ND                |   | 33.1           | 27.1        | 82              | 33.1           | 26.7         | 81              | 1               | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate  | ND                |   | 33.1           | 34.6        | 104             | 33.1           | 32.9         | 99              | 5               | 69-137/20         |
| 76-44-8    | Heptachlor          | ND                |   | 33.1           | 27.1        | 82              | 33.1           | 27.5         | 83              | 1               | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide  | ND                |   | 33.1           | 26.8        | 81              | 33.1           | 26.7         | 81              | 0               | 79-127/20         |
| 72-43-5    | Methoxychlor        | ND                |   | 33.1           | 30.1        | 91 <sup>b</sup> | 33.1           | 26.9         | 81 <sup>b</sup> | 11 <sup>b</sup> | 70-137/20         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33928-7 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 82%  | 83%  | 88%      | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 89%  | 89%  | 92%      | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 104% | 98%  | 111%     | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 112% | 115% | 131%     | 53-145% |

(a) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot at a lower reporting limit but CCV's failed due to carry-over.

(b) Results from signal #2.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Traning Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample                | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|------------|-----|----------|----|-----------|------------|------------------|
| OP10030-MS            | MM021972.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| OP10030-MSD           | MM021973.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |
| C33923-7 <sup>a</sup> | MM021963.D | 200 | 05/14/14 | RV | 05/13/14  | OP10030    | GMM650           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No.    | Compound           | C33923-7<br>ug/kg | Q | Spike<br>ug/kg | MS<br>ug/kg | MS<br>%          | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>%         | RPD              | Limits<br>Rec/RPD |
|------------|--------------------|-------------------|---|----------------|-------------|------------------|----------------|--------------|------------------|------------------|-------------------|
| 309-00-2   | Aldrin             | ND                |   | 33.3           | ND          | 66* <sup>b</sup> | 33.3           | ND           | 63* <sup>b</sup> | 4                | 74-124/20         |
| 319-84-6   | alpha-BHC          | ND                |   | 33.3           | ND          | 61* <sup>b</sup> | 33.3           | ND           | 58* <sup>b</sup> | 6                | 70-127/20         |
| 319-85-7   | beta-BHC           | ND                |   | 33.3           | ND          | 90               | 33.3           | ND           | 63* <sup>b</sup> | 36* <sup>b</sup> | 76-137/20         |
| 319-86-8   | delta-BHC          | ND                |   | 33.3           | ND          | 59* <sup>b</sup> | 33.3           | ND           | 50* <sup>b</sup> | 15               | 69-132/20         |
| 60-57-1    | Dieldrin           | ND                |   | 33.3           | ND          | 75               | 33.3           | ND           | 71               | 5                | 45-132/24         |
| 72-54-8    | 4,4'-DDD           | ND                |   | 33.3           | ND          | 78               | 33.3           | ND           | 74               | 5                | 74-134/20         |
| 72-55-9    | 4,4'-DDE           | ND                |   | 33.3           | ND          | 93               | 33.3           | ND           | 74               | 23* <sup>b</sup> | 73-131/20         |
| 50-29-3    | 4,4'-DDT           | ND                |   | 33.3           | ND          | 45* <sup>b</sup> | 33.3           | ND           | 44* <sup>b</sup> | 1                | 66-129/20         |
| 72-20-8    | Endrin             | ND                |   | 33.3           | ND          | 83               | 33.3           | ND           | 77* <sup>b</sup> | 7                | 80-143/20         |
| 7421-93-4  | Endrin aldehyde    | ND                |   | 33.3           | ND          | 74               | 33.3           | ND           | 74               | 0                | 71-133/20         |
| 959-98-8   | Endosulfan-I       | ND                |   | 33.3           | ND          | 72* <sup>b</sup> | 33.3           | ND           | 63* <sup>b</sup> | 14               | 77-135/20         |
| 33213-65-9 | Endosulfan-II      | ND                |   | 33.3           | ND          | 75               | 33.3           | ND           | 60* <sup>b</sup> | 22* <sup>b</sup> | 75-134/20         |
| 1031-07-8  | Endosulfan sulfate | ND                |   | 33.3           | ND          | 101              | 33.3           | ND           | 116              | 14               | 69-137/20         |
| 76-44-8    | Heptachlor         | ND                |   | 33.3           | ND          | 80* <sup>b</sup> | 33.3           | ND           | 69* <sup>b</sup> | 15               | 82-132/20         |
| 1024-57-3  | Heptachlor epoxide | ND                |   | 33.3           | ND          | 89               | 33.3           | ND           | 76* <sup>b</sup> | 16               | 79-127/20         |
| 72-43-5    | Methoxychlor       | ND                |   | 33.3           | ND          | 35* <sup>b</sup> | 33.3           | ND           | 42* <sup>b</sup> | 18               | 70-137/20         |

| CAS No.   | Surrogate Recoveries | MS  | MSD | C33923-7 | Limits  |
|-----------|----------------------|-----|-----|----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86% | 86% | 90%      | 49-127% |
| 877-09-8  | Tetrachloro-m-xylene | 78% | 76% | 90%      | 49-127% |
| 2051-24-3 | Decachlorobiphenyl   | 80% | 82% | 102%     | 53-145% |
| 2051-24-3 | Decachlorobiphenyl   | 91% | 93% | 103%     | 53-145% |

(a) Reporting Limits raised due to high concentration of non-target compounds (hydrocarbons). Shot originally at a lower reporting limit but CCV's failed due to carry-over.

(b) Outside control limits due to matrix interference and dilution.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10009-MS  | HH312961.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| OP10009-MSD | HH312962.D | 1  | 05/09/14 | AG | 05/08/14  | OP10009    | GHH1255          |
| C33923-16   | HH312947.D | 1  | 05/08/14 | AG | 05/08/14  | OP10009    | GHH1255          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

| CAS No. | Compound        | C33923-16<br>mg/kg | Spike<br>Q | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|--------------------|------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | ND                 | 33.2       | 28.8        | 87      | 33.1           | 28.2         | 85       | 2   | 39-102/29         |
|         | TPH (> C28-C40) | ND                 | 33.2       | 34.2        | 103     | 33.1           | 34.6         | 104      | 1   | 42-111/26         |

| CAS No.  | Surrogate Recoveries | MS   | MSD  | C33923-16 | Limits  |
|----------|----------------------|------|------|-----------|---------|
| 630-01-3 | Hexacosane           | 112% | 108% | 106%      | 37-122% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33923  
Account: ETCHIH EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10027-MS  | HH313107.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| OP10027-MSD | HH313108.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |
| C33923-4    | HH313094.D | 20 | 05/14/14 | AG | 05/13/14  | OP10027    | GHH1259          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

| CAS No. | Compound        | C33923-4<br>mg/kg | Q | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|-------------------|---|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 115               |   | 33.1           | 136         | 63      | 33.1           | 113          | -6* a    | 18  | 39-102/29         |
|         | TPH (> C28-C40) | 471               |   | 33.1           | 531         | 181* a  | 33.1           | 428          | -130* a  | 21  | 42-111/26         |

| CAS No.  | Surrogate Recoveries | MS  | MSD | C33923-4 | Limits  |
|----------|----------------------|-----|-----|----------|---------|
| 630-01-3 | Hexacosane           | 90% | 79% | 78%      | 37-122% |

(a) Outside control limits due to high level in sample relative to spike amount and matrix interference.

\* = Outside of Control Limits.



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/13/14

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 20   | 1.3 | 2    |           |       |
| Antimony   | 2.0  | .07 | .087 |           |       |
| Arsenic    | 2.0  | .07 | .07  | -0.22     | <2.0  |
| Barium     | 20   | .04 | .035 | 0.20      | <20   |
| Beryllium  | 1.0  | .02 | .012 |           |       |
| Boron      | 10   | .09 | .2   |           |       |
| Cadmium    | 1.0  | .02 | .015 | -0.060    | <1.0  |
| Calcium    | 500  | .71 | 7.6  |           |       |
| Chromium   | 1.0  | .03 | .054 | -0.42     | <1.0  |
| Cobalt     | 1.0  | .02 | .022 |           |       |
| Copper     | 2.5  | .12 | .19  |           |       |
| Iron       | 20   | .64 | 1.6  |           |       |
| Lead       | 2.0  | .07 | .054 | -0.060    | <2.0  |
| Magnesium  | 500  | 2.7 | 1.5  |           |       |
| Manganese  | 1.5  | .01 | .054 |           |       |
| Molybdenum | 2.0  | .02 | .024 |           |       |
| Nickel     | 1.0  | .02 | .024 |           |       |
| Potassium  | 1000 | 1.8 | 1.3  |           |       |
| Selenium   | 2.0  | .18 | .23  | 0.65      | <2.0  |
| Silicon    |      | .12 |      |           |       |
| Silver     | 1.0  | .03 | .044 | -0.11     | <1.0  |
| Sodium     | 1000 | 1.5 | 4.8  |           |       |
| Strontium  | 1.0  | .02 | .017 |           |       |
| Thallium   | 2.0  | .05 | .073 |           |       |
| Tin        | 50   | .02 | .41  |           |       |
| Titanium   | 1.0  | .04 | .079 |           |       |
| Vanadium   | 1.0  | .03 | .025 |           |       |
| Zinc       | 2.0  | .03 | .098 |           |       |

Associated samples MP7824: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/13/14

| Metal      | C33923-16<br>Original MS |     | Spike lot<br>MPIR5 |          | QC<br>Limits |
|------------|--------------------------|-----|--------------------|----------|--------------|
| Aluminum   |                          |     |                    |          |              |
| Antimony   |                          |     |                    |          |              |
| Arsenic    | 1.7                      | 6.6 | 4.94               | 99.2     | 75-125       |
| Barium     | 3.0                      | 7.6 | 4.94               | 93.1     | 75-125       |
| Beryllium  |                          |     |                    |          |              |
| Boron      |                          |     |                    |          |              |
| Cadmium    | 0.095                    | 5.2 | 4.94               | 103.3    | 75-125       |
| Calcium    |                          |     |                    |          |              |
| Chromium   | 2.9                      | 8.2 | 4.94               | 107.3    | 75-125       |
| Cobalt     |                          |     |                    |          |              |
| Copper     |                          |     |                    |          |              |
| Iron       |                          |     |                    |          |              |
| Lead       | 0.0                      | 3.7 | 4.94               | 74.9N(a) | 75-125       |
| Magnesium  |                          |     |                    |          |              |
| Manganese  |                          |     |                    |          |              |
| Molybdenum |                          |     |                    |          |              |
| Nickel     |                          |     |                    |          |              |
| Potassium  |                          |     |                    |          |              |
| Selenium   | 1.0                      | 5.9 | 4.94               | 99.2     | 75-125       |
| Silicon    |                          |     |                    |          |              |
| Silver     | 0.0                      | 4.6 | 4.94               | 93.1     | 75-125       |
| Sodium     |                          |     |                    |          |              |
| Strontium  |                          |     |                    |          |              |
| Thallium   |                          |     |                    |          |              |
| Tin        |                          |     |                    |          |              |
| Titanium   |                          |     |                    |          |              |
| Vanadium   |                          |     |                    |          |              |
| Zinc       |                          |     |                    |          |              |

Associated samples MP7824: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/13/14

| Metal      | C33923-16<br>Original MSD |     | Spikelet<br>MPIR5 % Rec |       | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-----|-------------------------|-------|------------|-------------|
| Aluminum   |                           |     |                         |       |            |             |
| Antimony   |                           |     |                         |       |            |             |
| Arsenic    | 1.7                       | 5.8 | 4.98                    | 82.4  | 12.9       | 20          |
| Barium     | 3.0                       | 8.4 | 4.98                    | 108.5 | 10.0       | 20          |
| Beryllium  |                           |     |                         |       |            |             |
| Boron      |                           |     |                         |       |            |             |
| Cadmium    | 0.095                     | 5.4 | 4.98                    | 106.6 | 3.8        | 20          |
| Calcium    |                           |     |                         |       |            |             |
| Chromium   | 2.9                       | 8.4 | 4.98                    | 110.6 | 2.4        | 20          |
| Cobalt     |                           |     |                         |       |            |             |
| Copper     |                           |     |                         |       |            |             |
| Iron       |                           |     |                         |       |            |             |
| Lead       | 0.0                       | 3.9 | 4.98                    | 78.4  | 5.3        | 20          |
| Magnesium  |                           |     |                         |       |            |             |
| Manganese  |                           |     |                         |       |            |             |
| Molybdenum |                           |     |                         |       |            |             |
| Nickel     |                           |     |                         |       |            |             |
| Potassium  |                           |     |                         |       |            |             |
| Selenium   | 1.0                       | 6.2 | 4.98                    | 104.5 | 5.0        | 20          |
| Silicon    |                           |     |                         |       |            |             |
| Silver     | 0.0                       | 4.0 | 4.98                    | 80.4  | 14.0       | 20          |
| Sodium     |                           |     |                         |       |            |             |
| Strontium  |                           |     |                         |       |            |             |
| Thallium   |                           |     |                         |       |            |             |
| Tin        |                           |     |                         |       |            |             |
| Titanium   |                           |     |                         |       |            |             |
| Vanadium   |                           |     |                         |       |            |             |
| Zinc       |                           |     |                         |       |            |             |

Associated samples MP7824: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested



## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/13/14

| Metal      | BSP<br>Result | Spikelot<br>MPIR5 | % Rec | QC<br>Limits |
|------------|---------------|-------------------|-------|--------------|
| Aluminum   |               |                   |       |              |
| Antimony   |               |                   |       |              |
| Arsenic    | 45.8          | 50                | 91.6  | 80-120       |
| Barium     | 47.2          | 50                | 94.4  | 80-120       |
| Beryllium  |               |                   |       |              |
| Boron      |               |                   |       |              |
| Cadmium    | 44.9          | 50                | 89.8  | 80-120       |
| Calcium    |               |                   |       |              |
| Chromium   | 50.7          | 50                | 101.4 | 80-120       |
| Cobalt     |               |                   |       |              |
| Copper     |               |                   |       |              |
| Iron       |               |                   |       |              |
| Lead       | 47.6          | 50                | 95.2  | 80-120       |
| Magnesium  |               |                   |       |              |
| Manganese  |               |                   |       |              |
| Molybdenum |               |                   |       |              |
| Nickel     |               |                   |       |              |
| Potassium  |               |                   |       |              |
| Selenium   | 45.2          | 50                | 90.4  | 80-120       |
| Silicon    |               |                   |       |              |
| Silver     | 44.6          | 50                | 89.2  | 80-120       |
| Sodium     |               |                   |       |              |
| Strontium  |               |                   |       |              |
| Thallium   |               |                   |       |              |
| Tin        |               |                   |       |              |
| Titanium   |               |                   |       |              |
| Vanadium   |               |                   |       |              |
| Zinc       |               |                   |       |              |

Associated samples MP7824: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.1.3  
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7824  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: ug/l

Prep Date: 05/13/14

| C33923-16  |          | QC            |                |
|------------|----------|---------------|----------------|
| Metal      | Original | SDL 5:25 %DIF | Limits         |
| Aluminum   |          |               |                |
| Antimony   |          |               |                |
| Arsenic    | 167      | 0.00          | 100.0 (a) 0-10 |
| Barium     | 300      | 268           | 10.6 (a) 0-10  |
| Beryllium  |          |               |                |
| Boron      |          |               |                |
| Cadmium    | 9.50     | 53.7          | 465.3 (a) 0-10 |
| Calcium    |          |               |                |
| Chromium   | 292      | 231           | 21.0* (b) 0-10 |
| Cobalt     |          |               |                |
| Copper     |          |               |                |
| Iron       |          |               |                |
| Lead       | 0.00     | 0.00          | NC 0-10        |
| Magnesium  |          |               |                |
| Manganese  |          |               |                |
| Molybdenum |          |               |                |
| Nickel     |          |               |                |
| Potassium  |          |               |                |
| Selenium   | 101      | 259           | 156.7 (a) 0-10 |
| Silicon    |          |               |                |
| Silver     | 0.00     | 0.00          | NC 0-10        |
| Sodium     |          |               |                |
| Strontium  |          |               |                |
| Thallium   |          |               |                |
| Tin        |          |               |                |
| Titanium   |          |               |                |
| Vanadium   |          |               |                |
| Zinc       |          |               |                |

Associated samples MP7824: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
Matrix Type: SOLID

Methods: SW846 7471A  
Units: mg/kg

Prep Date: 05/13/14

| Metal   | RL    | IDL    | MDL   | MB     |        |
|---------|-------|--------|-------|--------|--------|
|         |       |        |       | raw    | final  |
| Mercury | 0.042 | .00035 | .0043 | 0.0052 | <0.042 |

Associated samples MP7835: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.2.1  
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | C33951-4    |      | SpikeLot |       | QC     |
|---------|-------------|------|----------|-------|--------|
|         | Original MS |      | HGPWS1   | % Rec | Limits |
| Mercury | 0.047       | 0.35 | 0.313    | 97.0  | 75-125 |

Associated samples MP7835: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.2.2  
 9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | C33951-4 |      | SpikeLot |       | MSD | QC    |
|---------|----------|------|----------|-------|-----|-------|
|         | Original | MSD  | HGPWS1   | % Rec | RPD | Limit |
| Mercury | 0.047    | 0.36 | 0.308    | 101.7 | 2.8 | 20    |

Associated samples MP7835: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.2.2  
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7835  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/13/14

| Metal   | BSP    | Spikelot | QC    |        |
|---------|--------|----------|-------|--------|
|         | Result | HGPWS1   | % Rec | Limits |
| Mercury | 0.16   | 0.167    | 96.0  | 80-120 |

Associated samples MP7835: C33923-16, C33923-17, C33923-18, C33923-19, C33923-20, C33923-21, C33923-22, C33923-23, C33923-24, C33923-25, C33923-26

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.2.3  
 9

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7841  
Matrix Type: SOLID

Methods: SW846 7471A  
Units: mg/kg

Prep Date: 05/14/14

| Metal   | RL    | IDL    | MDL   | MB     |        |
|---------|-------|--------|-------|--------|--------|
|         |       |        |       | raw    | final  |
| Mercury | 0.042 | .00035 | .0043 | 0.0098 | <0.042 |

Associated samples MP7841: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7841  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/14/14

| Metal   | C34007-1    |      | Spikelot |      | QC           |  |
|---------|-------------|------|----------|------|--------------|--|
|         | Original MS |      | HGPWS1   |      | % Rec Limits |  |
| Mercury | 0.024       | 0.34 | 0.317    | 99.5 | 75-125       |  |

Associated samples MP7841: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.3.2  
9



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7841  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/14/14

| Metal   | C34007-1 |      | SpikeLot |       | MSD | QC    |
|---------|----------|------|----------|-------|-----|-------|
|         | Original | MSD  | HGPWS1   | % Rec | RPD | Limit |
| Mercury | 0.024    | 0.33 | 0.313    | 97.9  | 3.0 | 20    |

Associated samples MP7841: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.3.2  
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7841  
 Matrix Type: SOLID

Methods: SW846 7471A  
 Units: mg/kg

Prep Date: 05/14/14

| Metal   | BSP    | Spikelot | QC    |        |
|---------|--------|----------|-------|--------|
|         | Result | HGPWS1   | % Rec | Limits |
| Mercury | 0.15   | 0.167    | 90.0  | 80-120 |

Associated samples MP7841: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.3.3  
 9

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7843  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/15/14

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 20   | 1.3 | 2    |           |       |
| Antimony   | 2.0  | .07 | .087 |           |       |
| Arsenic    | 2.0  | .07 | .07  | 0.040     | <2.0  |
| Barium     | 20   | .04 | .035 | 0.22      | <20   |
| Beryllium  | 1.0  | .02 | .012 |           |       |
| Boron      | 10   | .09 | .2   |           |       |
| Cadmium    | 1.0  | .02 | .015 | -0.040    | <1.0  |
| Calcium    | 500  | .71 | 7.6  |           |       |
| Chromium   | 1.0  | .03 | .054 | 0.17      | <1.0  |
| Cobalt     | 1.0  | .02 | .022 |           |       |
| Copper     | 2.5  | .12 | .19  |           |       |
| Iron       | 20   | .64 | 1.6  |           |       |
| Lead       | 2.0  | .07 | .054 | 0.070     | <2.0  |
| Magnesium  | 500  | 2.7 | 1.5  |           |       |
| Manganese  | 1.5  | .01 | .054 |           |       |
| Molybdenum | 2.0  | .02 | .024 |           |       |
| Nickel     | 1.0  | .02 | .024 |           |       |
| Potassium  | 1000 | 1.8 | 1.3  |           |       |
| Selenium   | 2.0  | .18 | .23  | 0.43      | <2.0  |
| Silicon    |      | .12 |      |           |       |
| Silver     | 1.0  | .03 | .044 | -0.19     | <1.0  |
| Sodium     | 1000 | 1.5 | 4.8  |           |       |
| Strontium  | 1.0  | .02 | .017 |           |       |
| Thallium   | 2.0  | .05 | .073 |           |       |
| Tin        | 50   | .02 | .41  |           |       |
| Titanium   | 1.0  | .04 | .079 |           |       |
| Vanadium   | 1.0  | .03 | .025 |           |       |
| Zinc       | 2.0  | .03 | .098 |           |       |

Associated samples MP7843: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7843  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/15/14

| Metal      | C33923-1<br>Original MS |      | Spike lot<br>MPIR5 |          | QC<br>% Rec | QC<br>Limits |
|------------|-------------------------|------|--------------------|----------|-------------|--------------|
| Aluminum   |                         |      |                    |          |             |              |
| Antimony   |                         |      |                    |          |             |              |
| Arsenic    | 7.4                     | 11.2 | 4.96               | 76.6     |             | 75-125       |
| Barium     | 90.5                    | 94.8 | 4.96               | 86.7     |             | 75-125       |
| Beryllium  |                         |      |                    |          |             |              |
| Boron      |                         |      |                    |          |             |              |
| Cadmium    | 18.8                    | 22.6 | 4.96               | 76.6     |             | 75-125       |
| Calcium    |                         |      |                    |          |             |              |
| Chromium   | 126                     | 130  | 4.96               | 80.6     |             | 75-125       |
| Cobalt     |                         |      |                    |          |             |              |
| Copper     |                         |      |                    |          |             |              |
| Iron       |                         |      |                    |          |             |              |
| Lead       | 35.6                    | 39.3 | 4.96               | 74.6 (a) |             | 75-125       |
| Magnesium  |                         |      |                    |          |             |              |
| Manganese  |                         |      |                    |          |             |              |
| Molybdenum |                         |      |                    |          |             |              |
| Nickel     |                         |      |                    |          |             |              |
| Potassium  |                         |      |                    |          |             |              |
| Selenium   | 0.40                    | 3.7  | 4.96               | 66.5N(b) |             | 75-125       |
| Silicon    |                         |      |                    |          |             |              |
| Silver     | 0.0                     | 3.7  | 4.96               | 74.6N(b) |             | 75-125       |
| Sodium     |                         |      |                    |          |             |              |
| Strontium  |                         |      |                    |          |             |              |
| Thallium   |                         |      |                    |          |             |              |
| Tin        |                         |      |                    |          |             |              |
| Titanium   |                         |      |                    |          |             |              |
| Vanadium   |                         |      |                    |          |             |              |
| Zinc       |                         |      |                    |          |             |              |

Associated samples MP7843: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.



## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7843  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 05/15/14

| Metal      | C33923-1<br>Original MSD |      | Spikelot<br>MPIR5 % Rec |          | MSD<br>RPD | QC<br>Limit |
|------------|--------------------------|------|-------------------------|----------|------------|-------------|
| Aluminum   |                          |      |                         |          |            |             |
| Antimony   |                          |      |                         |          |            |             |
| Arsenic    | 7.4                      | 11.7 | 4.97                    | 86.5     | 4.4        | 20          |
| Barium     | 90.5                     | 99.1 | 4.97                    | 173.0(a) | 4.4        | 20          |
| Beryllium  |                          |      |                         |          |            |             |
| Boron      |                          |      |                         |          |            |             |
| Cadmium    | 18.8                     | 23.3 | 4.97                    | 90.5     | 3.1        | 20          |
| Calcium    |                          |      |                         |          |            |             |
| Chromium   | 126                      | 133  | 4.97                    | 140.8(a) | 2.3        | 20          |
| Cobalt     |                          |      |                         |          |            |             |
| Copper     |                          |      |                         |          |            |             |
| Iron       |                          |      |                         |          |            |             |
| Lead       | 35.6                     | 40.0 | 4.97                    | 88.5     | 1.8        | 20          |
| Magnesium  |                          |      |                         |          |            |             |
| Manganese  |                          |      |                         |          |            |             |
| Molybdenum |                          |      |                         |          |            |             |
| Nickel     |                          |      |                         |          |            |             |
| Potassium  |                          |      |                         |          |            |             |
| Selenium   | 0.40                     | 4.1  | 4.97                    | 74.4N(b) | 10.3       | 20          |
| Silicon    |                          |      |                         |          |            |             |
| Silver     | 0.0                      | 4.0  | 4.97                    | 80.5     | 7.8        | 20          |
| Sodium     |                          |      |                         |          |            |             |
| Strontium  |                          |      |                         |          |            |             |
| Thallium   |                          |      |                         |          |            |             |
| Tin        |                          |      |                         |          |            |             |
| Titanium   |                          |      |                         |          |            |             |
| Vanadium   |                          |      |                         |          |            |             |
| Zinc       |                          |      |                         |          |            |             |

Associated samples MP7843: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33923  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7843  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 05/15/14

| Metal      | BSP<br>Result | Spikelot<br>MPIR5 | % Rec | QC<br>Limits |
|------------|---------------|-------------------|-------|--------------|
| Aluminum   |               |                   |       |              |
| Antimony   |               |                   |       |              |
| Arsenic    | 47.5          | 50                | 95.0  | 80-120       |
| Barium     | 48.7          | 50                | 97.4  | 80-120       |
| Beryllium  |               |                   |       |              |
| Boron      |               |                   |       |              |
| Cadmium    | 47.4          | 50                | 94.8  | 80-120       |
| Calcium    |               |                   |       |              |
| Chromium   | 48.6          | 50                | 97.2  | 80-120       |
| Cobalt     |               |                   |       |              |
| Copper     |               |                   |       |              |
| Iron       |               |                   |       |              |
| Lead       | 47.3          | 50                | 94.6  | 80-120       |
| Magnesium  |               |                   |       |              |
| Manganese  |               |                   |       |              |
| Molybdenum |               |                   |       |              |
| Nickel     |               |                   |       |              |
| Potassium  |               |                   |       |              |
| Selenium   | 44.8          | 50                | 89.6  | 80-120       |
| Silicon    |               |                   |       |              |
| Silver     | 46.0          | 50                | 92.0  | 80-120       |
| Sodium     |               |                   |       |              |
| Strontium  |               |                   |       |              |
| Thallium   |               |                   |       |              |
| Tin        |               |                   |       |              |
| Titanium   |               |                   |       |              |
| Vanadium   |               |                   |       |              |
| Zinc       |               |                   |       |              |

Associated samples MP7843: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.4.3  
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: C33923  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7843  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/15/14

| C33923-1   |          | QC            |               |
|------------|----------|---------------|---------------|
| Metal      | Original | SDL 10:50%DIF | Limits        |
| Aluminum   |          |               |               |
| Antimony   |          |               |               |
| Arsenic    | 738      | 806           | 9.2 0-10      |
| Barium     | 9060     | 10100         | 11.5*(a) 0-10 |
| Beryllium  |          |               |               |
| Boron      |          |               |               |
| Cadmium    | 1880     | 2040          | 8.6 0-10      |
| Calcium    |          |               |               |
| Chromium   | 12600    | 15100         | 20.0*(a) 0-10 |
| Cobalt     |          |               |               |
| Copper     |          |               |               |
| Iron       |          |               |               |
| Lead       | 3560     | 3260          | 8.5 0-10      |
| Magnesium  |          |               |               |
| Manganese  |          |               |               |
| Molybdenum |          |               |               |
| Nickel     |          |               |               |
| Potassium  |          |               |               |
| Selenium   | 40.2     | 166           | 311.9(b) 0-10 |
| Silicon    |          |               |               |
| Silver     | 0.00     | 246           | NC 0-10       |
| Sodium     |          |               |               |
| Strontium  |          |               |               |
| Thallium   |          |               |               |
| Tin        |          |               |               |
| Titanium   |          |               |               |
| Vanadium   |          |               |               |
| Zinc       |          |               |               |

Associated samples MP7843: C33923-1, C33923-2, C33923-3, C33923-4, C33923-5, C33923-6, C33923-7, C33923-8, C33923-9, C33923-10, C33923-11, C33923-12, C33923-13, C33923-14, C33923-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Technical Report for

EnviroServices and Training Center

Kahului Harbor Parcel-Maui, HI

14-2003

Accutest Job Number: C33924

Sampling Dates: 05/06/14 - 05/07/14

Report to:

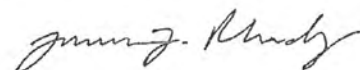
EnviroServices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814  
sharla@gotoetc.com

ATTN: Sharla Nakashima

Total number of pages in report: **73**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



James J. Rhudy  
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: OR (CA300006) CA (08258CA) AZ (AZ0762) DoD ELAP (L-A-B L2242)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.





June 4, 2014

Sharla Nakashima  
Enviroservices & Training Center  
505 Ward Ave Suite 202  
Honolulu, HI 96814

**Re: Accutest Job # C33924 Reissue**

Dear Ms. Nakashima,

The final report for Accutest Job # **C33924**, original report dated 5/16/2014, has been edited to reflect requested corrections.

Additional results for 8015 Oil Range Organics {TPH (>C28-C40)} have been added for all samples as per your request. Revised result pages and associated QC have been incorporated into this revised report.

Please contact us at 408-588-0200 if we can be of further assistance in this matter, or if you have any questions regarding this data report.

Sincerely,

Accutest Laboratories

# Table of Contents

Sections:

1

2

3

4

5

6

7

8

9

-1-

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| <b>Section 1: Sample Summary .....</b>                           | <b>4</b>  |
| <b>Section 2: Summary of Hits .....</b>                          | <b>5</b>  |
| <b>Section 3: Sample Results .....</b>                           | <b>7</b>  |
| <b>3.1: C33924-1: 2003.B2.GW .....</b>                           | <b>8</b>  |
| <b>3.2: C33924-1F: 2003.B2.GW .....</b>                          | <b>13</b> |
| <b>3.3: C33924-2: 2003.B9.GW .....</b>                           | <b>14</b> |
| <b>3.4: C33924-2F: 2003.B9.GW .....</b>                          | <b>19</b> |
| <b>3.5: C33924-3: 2003.B19.GW .....</b>                          | <b>20</b> |
| <b>3.6: C33924-3F: 2003.B19.GW .....</b>                         | <b>25</b> |
| <b>3.7: C33924-4: 2003.B30.GW .....</b>                          | <b>26</b> |
| <b>3.8: C33924-4F: 2003.B30.GW .....</b>                         | <b>31</b> |
| <b>3.9: C33924-5: 2003.B23.GW .....</b>                          | <b>32</b> |
| <b>3.10: C33924-5F: 2003.B23.GW .....</b>                        | <b>37</b> |
| <b>Section 4: Misc. Forms .....</b>                              | <b>38</b> |
| <b>4.1: Chain of Custody .....</b>                               | <b>39</b> |
| <b>Section 5: GC/MS Volatiles - QC Data Summaries .....</b>      | <b>42</b> |
| <b>5.1: Method Blank Summary .....</b>                           | <b>43</b> |
| <b>5.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>45</b> |
| <b>5.3: Laboratory Control Sample Summary .....</b>              | <b>47</b> |
| <b>5.4: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>49</b> |
| <b>Section 6: GC/MS Semi-volatiles - QC Data Summaries .....</b> | <b>50</b> |
| <b>6.1: Method Blank Summary .....</b>                           | <b>51</b> |
| <b>6.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>52</b> |
| <b>6.3: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>53</b> |
| <b>Section 7: GC Volatiles - QC Data Summaries .....</b>         | <b>54</b> |
| <b>7.1: Method Blank Summary .....</b>                           | <b>55</b> |
| <b>7.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>56</b> |
| <b>7.3: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>57</b> |
| <b>Section 8: GC Semi-volatiles - QC Data Summaries .....</b>    | <b>58</b> |
| <b>8.1: Method Blank Summary .....</b>                           | <b>59</b> |
| <b>8.2: Blank Spike/Blank Spike Duplicate Summary .....</b>      | <b>61</b> |
| <b>8.3: Matrix Spike/Matrix Spike Duplicate Summary .....</b>    | <b>63</b> |
| <b>Section 9: Metals Analysis - QC Data Summaries .....</b>      | <b>64</b> |
| <b>9.1: Prep QC MP7820: As,Ba,Cd,Cr,Pb,Se,Ag .....</b>           | <b>65</b> |
| <b>9.2: Prep QC MP7826: Hg .....</b>                             | <b>70</b> |



## Sample Summary

EnviroServices and Training Center

Job No: C33924

Kahului Harbor Parcel-Maui, HI  
Project No: 14-2003

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type                 | Client Sample ID |
|---------------|----------------|----------|----------|-------------|----------------------|------------------|
| C33924-1      | 05/06/14       | 16:15 BS | 05/08/14 | AQ          | Ground Water         | 2003.B2.GW       |
| C33924-1F     | 05/06/14       | 16:15 BS | 05/08/14 | AQ          | Groundwater Filtered | 2003.B2.GW       |
| C33924-2      | 05/06/14       | 17:45 BS | 05/08/14 | AQ          | Ground Water         | 2003.B9.GW       |
| C33924-2F     | 05/06/14       | 17:45 BS | 05/08/14 | AQ          | Groundwater Filtered | 2003.B9.GW       |
| C33924-3      | 05/06/14       | 15:00 BS | 05/08/14 | AQ          | Ground Water         | 2003.B19.GW      |
| C33924-3F     | 05/06/14       | 15:00 BS | 05/08/14 | AQ          | Groundwater Filtered | 2003.B19.GW      |
| C33924-4      | 05/07/14       | 07:50 BS | 05/08/14 | AQ          | Ground Water         | 2003.B30.GW      |
| C33924-4F     | 05/07/14       | 07:50 BS | 05/08/14 | AQ          | Groundwater Filtered | 2003.B30.GW      |
| C33924-5      | 05/06/14       | 00:00 BS | 05/09/14 | AQ          | Ground Water         | 2003.B23.GW      |
| C33924-5F     | 05/06/14       | 00:00 BS | 05/09/14 | AQ          | Groundwater Filtered | 2003.B23.GW      |



## Summary of Hits

Page 1 of 2

**Job Number:** C33924  
**Account:** EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI  
**Collected:** 05/06/14 thru 05/07/14

| Lab Sample ID                    | Client Sample ID   | Result/<br>Qual | RL    | MDL   | Units | Method             |
|----------------------------------|--------------------|-----------------|-------|-------|-------|--------------------|
| <b>C33924-1</b>                  | <b>2003.B2.GW</b>  |                 |       |       |       |                    |
| TPH (C10-C28)                    |                    | 0.0462 J        | 0.097 | 0.024 | mg/l  | SW846 8015B M      |
| TPH (> C28-C40)                  |                    | 0.0559 J        | 0.19  | 0.049 | mg/l  | SW846 8015B M      |
| <b>C33924-1F</b>                 | <b>2003.B2.GW</b>  |                 |       |       |       |                    |
| Arsenic                          |                    | 76.6            | 10    |       | ug/l  | SW846 6010B        |
| <b>C33924-2</b>                  | <b>2003.B9.GW</b>  |                 |       |       |       |                    |
| TPH (C10-C28)                    |                    | 0.0542 J        | 0.096 | 0.024 | mg/l  | SW846 8015B M      |
| TPH (> C28-C40)                  |                    | 0.0784 J        | 0.19  | 0.048 | mg/l  | SW846 8015B M      |
| <b>C33924-2F</b>                 | <b>2003.B9.GW</b>  |                 |       |       |       |                    |
| Arsenic                          |                    | 36.3            | 10    |       | ug/l  | SW846 6010B        |
| Silver                           |                    | 5.2             | 5.0   |       | ug/l  | SW846 6010B        |
| <b>C33924-3</b>                  | <b>2003.B19.GW</b> |                 |       |       |       |                    |
| Benzene                          |                    | 2.7             | 1.0   | 0.20  | ug/l  | SW846 8260B        |
| Methyl Tert Butyl Ether          |                    | 0.64 J          | 1.0   | 0.20  | ug/l  | SW846 8260B        |
| Fluoranthene                     |                    | 0.13 J          | 0.48  | 0.048 | ug/l  | SW846 8270C BY SIM |
| Naphthalene                      |                    | 0.28 J          | 0.48  | 0.096 | ug/l  | SW846 8270C BY SIM |
| TPH (C10-C28)                    |                    | 0.828           | 0.094 | 0.024 | mg/l  | SW846 8015B M      |
| TPH (> C28-C40)                  |                    | 0.201           | 0.19  | 0.047 | mg/l  | SW846 8015B M      |
| <b>C33924-3F</b>                 | <b>2003.B19.GW</b> |                 |       |       |       |                    |
| No hits reported in this sample. |                    |                 |       |       |       |                    |
| <b>C33924-4</b>                  | <b>2003.B30.GW</b> |                 |       |       |       |                    |
| TPH (C10-C28)                    |                    | 0.0937 J        | 0.095 | 0.024 | mg/l  | SW846 8015B M      |
| TPH (> C28-C40)                  |                    | 0.0937 J        | 0.19  | 0.048 | mg/l  | SW846 8015B M      |
| <b>C33924-4F</b>                 | <b>2003.B30.GW</b> |                 |       |       |       |                    |
| No hits reported in this sample. |                    |                 |       |       |       |                    |
| <b>C33924-5</b>                  | <b>2003.B23.GW</b> |                 |       |       |       |                    |
| TPH (C10-C28)                    |                    | 0.0816 J        | 0.095 | 0.024 | mg/l  | SW846 8015B M      |
| TPH (> C28-C40)                  |                    | 0.0748 J        | 0.19  | 0.048 | mg/l  | SW846 8015B M      |



## Summary of Hits

Page 2 of 2

**Job Number:** C33924  
**Account:** EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI  
**Collected:** 05/06/14 thru 05/07/14

2

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL  | MDL | Units | Method      |
|--------------------------|------------------|-----------------|-----|-----|-------|-------------|
| C33924-5F                | 2003.B23.GW      |                 |     |     |       |             |
| Arsenic                  |                  | 17.6            | 10  |     | ug/l  | SW846 6010B |
| Silver                   |                  | 6.7             | 5.0 |     | ug/l  | SW846 6010B |

Sample Results

Report of Analysis

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B2.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-1                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | U18749.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |
| Run #2 |          |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## Purgeable Aromatics

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 100%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 103%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105%   |        | 70-130% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | 2003.B2.GW                     |                                |
| <b>Lab Sample ID:</b>    | C33924-1                       | <b>Date Sampled:</b> 05/06/14  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 05/08/14 |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3510C | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                                |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36399.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL   | Units | Q |
|----------|------------------------|--------|-------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.48  | 0.048 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.48  | 0.048 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.096 | 0.051 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.096 | 0.039 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.096 | 0.034 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.096 | 0.035 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.096 | 0.037 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.096 | 0.043 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.096 | 0.034 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 0.48  | 0.048 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.096 | 0.034 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 0.48  | 0.096 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.48  | 0.048 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 76%    |        | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 78%    |        | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 99%    |        | 43-136% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B2.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-1                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44024.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.050  | 0.020   | mg/l  |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 93%    |        | 51-127% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B2.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-1                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8081A SW846 3510C        |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021830.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1020 ml        | 1.0 ml       |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.0098 | 0.0020 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.0098 | 0.0025 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.0098 | 0.0044 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.0098 | 0.0032 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0098 | 0.0025 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.098  | 0.0098 | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.0098 | 0.0021 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.0098 | 0.0023 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.0098 | 0.0029 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.0098 | 0.0024 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0098 | 0.0031 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.0098 | 0.0041 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.0098 | 0.0024 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.0098 | 0.0022 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.0098 | 0.0025 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0098 | 0.0027 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0098 | 0.0034 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.0098 | 0.0020 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.20   | 0.059  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 82%    |        | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 107%   |        | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 46-128% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B2.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-1                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B M SW846 3510C      |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51739.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1030 ml        | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No.  | Compound             | Result | RL     | MDL     | Units | Q |
|----------|----------------------|--------|--------|---------|-------|---|
|          | TPH (C10-C28)        | 0.0462 | 0.097  | 0.024   | mg/l  | J |
|          | TPH (> C28-C40)      | 0.0559 | 0.19   | 0.049   | mg/l  | J |
| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 630-01-3 | Hexacosane           | 98%    |        | 32-124% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B2.GW

Lab Sample ID: C33924-1F

Matrix: AQ - Groundwater Filtered

Date Sampled: 05/06/14

Date Received: 05/08/14

Percent Solids: n/a

Project: Kahului Harbor Parcel-Maui, HI

## Dissolved Metals Analysis

| Analyte  | Result | RL   | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | 76.6   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 200  | 200  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 2.0  | 2.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.20 | 0.20 | ug/l  | 1  | 05/12/14 | 05/13/14 EB | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver   | < 5.0  | 5.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA3949

(2) Instrument QC Batch: MA3952

(3) Prep QC Batch: MP7820

(4) Prep QC Batch: MP7826

RL = Reporting Limit



## Report of Analysis

|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | 2003.B9.GW                     |                                |
| <b>Lab Sample ID:</b>    | C33924-2                       | <b>Date Sampled:</b> 05/06/14  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 05/08/14 |
| <b>Method:</b>           | SW846 8260B                    | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                                |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | U18750.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |
| Run #2 |          |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## Purgeable Aromatics

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 100%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 104%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105%   |        | 70-130% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B9.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-2                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3510C |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36400.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL   | Units | Q |
|----------|------------------------|--------|-------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.48  | 0.048 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.48  | 0.048 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.096 | 0.051 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.096 | 0.039 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.096 | 0.034 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.096 | 0.035 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.096 | 0.037 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.096 | 0.043 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.096 | 0.034 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 0.48  | 0.048 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.096 | 0.034 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 0.48  | 0.096 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.48  | 0.048 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 74%    |        | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 77%    |        | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 96%    |        | 43-136% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B9.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-2                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44027.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## TPH Volatiles

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.050 | 0.020 | mg/l  |   |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|---------|----------------------|--------|--------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 95%    |        | 51-127% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B9.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-2                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8081A SW846 3510C        |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021831.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.0096 | 0.0019 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.0096 | 0.0025 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.0096 | 0.0043 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.0096 | 0.0032 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0096 | 0.0024 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.096  | 0.0096 | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.0096 | 0.0020 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.0096 | 0.0022 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.0096 | 0.0029 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.0096 | 0.0023 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0096 | 0.0031 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.0096 | 0.0040 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.0096 | 0.0023 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.0096 | 0.0021 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.0096 | 0.0024 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0096 | 0.0027 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0096 | 0.0034 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.0096 | 0.0019 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.19   | 0.058  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 93%    |        | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 113%   |        | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 104%   |        | 46-128% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.3

3

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B9.GW                     | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-2                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B M SW846 3510C      |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51741.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL    | MDL   | Units | Q |
|---------|-----------------|--------|-------|-------|-------|---|
|         | TPH (C10-C28)   | 0.0542 | 0.096 | 0.024 | mg/l  | J |
|         | TPH (> C28-C40) | 0.0784 | 0.19  | 0.048 | mg/l  | J |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 102%   |        | 32-124% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 2003.B9.GW            | <b>Date Sampled:</b> 05/06/14  |
| <b>Lab Sample ID:</b> C33924-2F                | <b>Date Received:</b> 05/08/14 |
| <b>Matrix:</b> AQ - Groundwater Filtered       | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Kahului Harbor Parcel-Maui, HI |                                |

## Dissolved Metals Analysis

| Analyte  | Result | RL   | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | 36.3   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 200  | 200  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 2.0  | 2.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.20 | 0.20 | ug/l  | 1  | 05/12/14 | 05/13/14 EB | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver   | 5.2    | 5.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA3949

(2) Instrument QC Batch: MA3952

(3) Prep QC Batch: MP7820

(4) Prep QC Batch: MP7826

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B19.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-3                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | U18751.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |
| Run #2 |          |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## Purgeable Aromatics

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | 2.7    | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | 0.64   | 1.0 | 0.20 | ug/l  | J |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 101%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 102%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 108%   |        | 70-130% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | 2003.B19.GW                    |                                |
| <b>Lab Sample ID:</b>    | C33924-3                       | <b>Date Sampled:</b> 05/06/14  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 05/08/14 |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3510C | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                                |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36401.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL   | Units | Q |
|----------|------------------------|--------|-------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.48  | 0.048 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.48  | 0.048 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.096 | 0.051 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.096 | 0.039 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.096 | 0.034 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.096 | 0.035 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.096 | 0.037 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.096 | 0.043 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.096 | 0.034 | ug/l  |   |
| 206-44-0 | Fluoranthene           | 0.13   | 0.48  | 0.048 | ug/l  | J |
| 86-73-7  | Fluorene               | ND     | 0.48  | 0.048 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.096 | 0.034 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.48  | 0.096 | ug/l  |   |
| 91-20-3  | Naphthalene            | 0.28   | 0.48  | 0.096 | ug/l  | J |
| 85-01-8  | Phenanthrene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.48  | 0.048 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 66%    |        | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 74%    |        | 43-136% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B19.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-3                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44028.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.050  | 0.020   | mg/l  |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 93%    |        | 51-127% |       |   |

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B19.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-3                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8081A SW846 3510C        |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021832.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1040 ml        | 1.0 ml       |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.0096 | 0.0019 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.0096 | 0.0025 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.0096 | 0.0043 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.0096 | 0.0032 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0096 | 0.0024 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.096  | 0.0096 | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.0096 | 0.0020 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.0096 | 0.0022 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.0096 | 0.0029 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.0096 | 0.0023 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0096 | 0.0031 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.0096 | 0.0040 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.0096 | 0.0023 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.0096 | 0.0021 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.0096 | 0.0024 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0096 | 0.0027 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0096 | 0.0034 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.0096 | 0.0019 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.19   | 0.058  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 84%    |        | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 79%    |        | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 103%   |        | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   |        | 46-128% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B19.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-3                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B M SW846 3510C      |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51742.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1060 ml        | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No. | Compound        | Result | RL    | MDL   | Units | Q |
|---------|-----------------|--------|-------|-------|-------|---|
|         | TPH (C10-C28)   | 0.828  | 0.094 | 0.024 | mg/l  |   |
|         | TPH (> C28-C40) | 0.201  | 0.19  | 0.047 | mg/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 630-01-3 | Hexacosane           | 87%    |        | 32-124% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B19.GW

Lab Sample ID: C33924-3F

Matrix: AQ - Groundwater Filtered

Date Sampled: 05/06/14

Date Received: 05/08/14

Percent Solids: n/a

Project: Kahului Harbor Parcel-Maui, HI

## Dissolved Metals Analysis

| Analyte              | Result | RL   | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------------------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic              | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Barium               | < 200  | 200  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Cadmium <sup>a</sup> | < 4.0  | 4.0  | ug/l  | 2  | 05/12/14 | 05/13/14 RS | SW846 6010B <sup>3</sup> | SW846 3010A <sup>4</sup> |
| Chromium             | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Lead                 | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Mercury              | < 0.20 | 0.20 | ug/l  | 1  | 05/12/14 | 05/13/14 EB | SW846 7470A <sup>2</sup> | SW846 7470A <sup>5</sup> |
| Selenium             | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Silver               | < 5.0  | 5.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>4</sup> |

(1) Instrument QC Batch: MA3949

(2) Instrument QC Batch: MA3952

(3) Instrument QC Batch: MA3953

(4) Prep QC Batch: MP7820

(5) Prep QC Batch: MP7826

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B30.GW                    | <b>Date Sampled:</b>   | 05/07/14 |
| <b>Lab Sample ID:</b>    | C33924-4                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | U18778.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |
| Run #2 |          |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## Purgeable Aromatics

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 102%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 103%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 104%   |        | 70-130% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B30.GW                    | <b>Date Sampled:</b>   | 05/07/14 |
| <b>Lab Sample ID:</b>    | C33924-4                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3510C |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36402.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1589           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1020 ml        | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL   | Units | Q |
|----------|------------------------|--------|-------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.49  | 0.049 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.49  | 0.049 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.49  | 0.049 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.098 | 0.052 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.098 | 0.040 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.098 | 0.034 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.098 | 0.035 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.098 | 0.038 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.098 | 0.044 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.098 | 0.034 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 0.49  | 0.049 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 0.49  | 0.049 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.098 | 0.034 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.49  | 0.098 | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.49  | 0.098 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 0.49  | 0.098 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 0.49  | 0.049 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.49  | 0.049 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 97%    |        | 43-136% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B30.GW                    | <b>Date Sampled:</b>   | 05/07/14 |
| <b>Lab Sample ID:</b>    | C33924-4                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44029.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.050  | 0.020   | mg/l  |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 97%    |        | 51-127% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B30.GW                    | <b>Date Sampled:</b>   | 05/07/14 |
| <b>Lab Sample ID:</b>    | C33924-4                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8081A SW846 3510C        |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021833.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 1.0 ml       |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL    | MDL    | Units | Q |
|------------|---------------------|--------|-------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.010 | 0.0020 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.010 | 0.0026 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.010 | 0.0045 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.010 | 0.0033 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.010 | 0.0025 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.10  | 0.010  | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.010 | 0.0021 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.010 | 0.0023 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.010 | 0.0030 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.010 | 0.0024 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.010 | 0.0032 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.010 | 0.0042 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.010 | 0.0024 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.010 | 0.0022 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.010 | 0.0025 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.010 | 0.0028 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.010 | 0.0035 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.010 | 0.0020 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.20  | 0.060  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 149% <sup>a</sup> |        | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 87%               |        | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 114%              |        | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 110%              |        | 46-128% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

3.7  
3

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B30.GW                    | <b>Date Sampled:</b>   | 05/07/14 |
| <b>Lab Sample ID:</b>    | C33924-4                       | <b>Date Received:</b>  | 05/08/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B M SW846 3510C      |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51743.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No.  | Compound             | Result | RL     | MDL     | Units | Q |
|----------|----------------------|--------|--------|---------|-------|---|
|          | TPH (C10-C28)        | 0.0937 | 0.095  | 0.024   | mg/l  | J |
|          | TPH (> C28-C40)      | 0.0937 | 0.19   | 0.048   | mg/l  | J |
| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 630-01-3 | Hexacosane           | 97%    |        | 32-124% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B30.GW

Lab Sample ID: C33924-4F

Matrix: AQ - Groundwater Filtered

Date Sampled: 05/07/14

Date Received: 05/08/14

Percent Solids: n/a

Project: Kahului Harbor Parcel-Maui, HI

## Dissolved Metals Analysis

| Analyte  | Result | RL   | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 200  | 200  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 2.0  | 2.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.20 | 0.20 | ug/l  | 1  | 05/12/14 | 05/13/14 EB | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver   | < 5.0  | 5.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA3949

(2) Instrument QC Batch: MA3952

(3) Prep QC Batch: MP7820

(4) Prep QC Batch: MP7826

RL = Reporting Limit

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B23.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-5                       | <b>Date Received:</b>  | 05/09/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | U18779.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |
| Run #2 |          |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## Purgeable Aromatics

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 1868-53-7 | Dibromofluoromethane | 104%   |        | 70-130% |
| 2037-26-5 | Toluene-D8           | 102%   |        | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 104%   |        | 70-130% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B23.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-5                       | <b>Date Received:</b>  | 05/09/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8270C BY SIM SW846 3510C |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|----------|----|----------|----|-----------|------------|------------------|
| Run #1 | X36483.D | 1  | 05/15/14 | AA | 05/09/14  | OP10006    | EX1591           |
| Run #2 |          |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 1.0 ml       |
| Run #2 |                |              |

## BN PAH List

| CAS No.  | Compound               | Result | RL    | MDL   | Units | Q |
|----------|------------------------|--------|-------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.48  | 0.048 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.48  | 0.048 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.095 | 0.050 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.095 | 0.039 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.095 | 0.033 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.095 | 0.034 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.095 | 0.037 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.095 | 0.043 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.095 | 0.033 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 0.48  | 0.048 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.095 | 0.033 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.48  | 0.095 | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.48  | 0.095 | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 0.48  | 0.095 | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 0.48  | 0.048 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.48  | 0.048 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 80%    |        | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 93%    |        | 43-136% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B23.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-5                       | <b>Date Received:</b>  | 05/09/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B                    |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | JK44030.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## TPH Volatiles

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 0.050  | 0.020   | mg/l  |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 95%    |        | 51-127% |       |   |

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B23.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-5                       | <b>Date Received:</b>  | 05/09/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8081A SW846 3510C        |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | MM021834.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 1.0 ml       |
| Run #2 |                |              |

## Pesticide PPL List

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.0095 | 0.0019 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.0095 | 0.0025 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.0095 | 0.0043 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.0095 | 0.0031 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0095 | 0.0024 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.095  | 0.0095 | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.0095 | 0.0020 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.0095 | 0.0022 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.0095 | 0.0029 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.0095 | 0.0023 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0095 | 0.0030 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.0095 | 0.0040 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.0095 | 0.0023 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.0095 | 0.0021 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.0095 | 0.0024 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0095 | 0.0027 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0095 | 0.0033 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.0095 | 0.0019 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.19   | 0.057  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 80%    |        | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 93%    |        | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 90%    |        | 46-128% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 2003.B23.GW                    | <b>Date Sampled:</b>   | 05/06/14 |
| <b>Lab Sample ID:</b>    | C33924-5                       | <b>Date Received:</b>  | 05/09/14 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8015B M SW846 3510C      |                        |          |
| <b>Project:</b>          | Kahului Harbor Parcel-Maui, HI |                        |          |

|        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------|----|-----------|------------|------------------|
| Run #1 | GG51745.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| Run #2 |           |    |          |    |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 1.0 ml       |
| Run #2 |                |              |

## TPH Extractable

| CAS No.  | Compound             | Result | RL     | MDL     | Units | Q |
|----------|----------------------|--------|--------|---------|-------|---|
|          | TPH (C10-C28)        | 0.0816 | 0.095  | 0.024   | mg/l  | J |
|          | TPH (> C28-C40)      | 0.0748 | 0.19   | 0.048   | mg/l  | J |
| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 630-01-3 | Hexacosane           | 104%   |        | 32-124% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: 2003.B23.GW

Lab Sample ID: C33924-5F

Matrix: AQ - Groundwater Filtered

Project: Kahului Harbor Parcel-Maui, HI

Date Sampled: 05/06/14

Date Received: 05/09/14

Percent Solids: n/a

## Dissolved Metals Analysis

| Analyte  | Result | RL   | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|--------|------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | 17.6   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 200  | 200  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 2.0  | 2.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.20 | 0.20 | ug/l  | 1  | 05/12/14 | 05/13/14 EB | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 10   | 10   | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver   | 6.7    | 5.0  | ug/l  | 1  | 05/12/14 | 05/12/14 RS | SW846 6010B <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA3949

(2) Instrument QC Batch: MA3952

(3) Prep QC Batch: MP7820

(4) Prep QC Batch: MP7826

RL = Reporting Limit



#### Misc. Forms

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#### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

|                                     |                            |
|-------------------------------------|----------------------------|
| FED-EX Tracking #<br>8030 3875 7047 | Bottle Order Control #     |
| Accutest Quota #<br>SPH12-2013-170  | Accutest NC Job #: C 33924 |

**ACCUTEST®**  
LABORATORIES

[illegible]

4.1

Page 1 of 3



2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

**ACCUTEST**  
LABORATORIES

2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

|                                         |                                |
|-----------------------------------------|--------------------------------|
| Rep. Order Tracking #<br>7949 4940 9555 | Bottle Order Control #         |
| Accutest Quote #<br>SPH12-2013-170      | Accutest NC Job #: C<br>C33924 |

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4

Page 2 of 3





## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C33924

Client: ENVIROSERVICES & TRAINING CENTER

Project: KAHULUI HARBOR

Date / Time Received: 5/8/2014

Delivery Method:

FedEx

Airbill #s: 803038757047

Cooler Temps (Initial/Adjusted): #1: (2.9/2.9); #2: (4.5/4.5);

### Cooler Security

Y or N

1. Custody Seals Present:

☐ Y ☒ N

2. Custody Seals Intact:

☐ Y ☐ N

3. COC Present:

☒ Y ☐ N

4. Smpl Dates/Time OK

☒ Y ☐ N

### Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ Y ☐ N

2. Cooler temp verification:

IR2:

3. Cooler media:

Ice (Bag)

4. No. Coolers:

2

### Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ Y ☒ N

2. Trip Blank listed on COC:

☐ Y ☒ N

3. Samples preserved properly:

☒ Y ☐ N

4. VOCs headspace free:

☒ Y ☐ N

### Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ Y ☐ N

2. Container labeling complete:

☒ Y ☐ N

3. Sample container label / COC agree:

☒ Y ☐ N

### Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ Y ☐ N

2. All containers accounted for:

☒ Y ☐ N

3. Condition of sample:

Intact

### Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ Y ☐ N

2. Bottles received for unspecified tests

☐ Y ☒ N

3. Sufficient volume recvd for analysis:

☒ Y ☐ N

4. Compositing instructions clear:

☐ Y ☐ N

☒ N/A

5. Filtering instructions clear:

☐ Y ☐ N

☒ N/A

### Comments

Thursday: 5/8/2014

Missing 1 Cooler

Sample ID: 2003.B2.GW: 1x 1L Amber broken

Sample ID: 2003.B9.GW: 3X 1L Amber missing, 1 X 250mL missing, 3x 40mL HCL Vials

Sample ID: 2003.B19.GW: 1x 1L Amber broken

Sample ID: 2003.B30.GW: 1X 1L Amber missing, 3x 40mL HCL Vials

Sample ID: 2003.B23.GW: sample not received

Friday: 5/9/14

Received Cooler FedEx#: 794949409555 (10:29 8.9C/on icepacks)

Sample 2- received missing ambers, poly, and vials

Sample 4- received missing amber & vials

Sample 5- received entire sample

Accutest Laboratories  
V: 408.588.0200

2105 Lundy Avenue  
F: 408.588.0201

San Jose, CA 95131  
www.accutest.com

C33924: Chain of Custody

Page 3 of 3



## GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample   | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|----------|----------|----|----------|----|-----------|------------|------------------|
| VU747-MB | U18746.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-1, C33924-2, C33924-3

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 100% 70-130% |
| 2037-26-5 | Toluene-D8           | 100% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 104% 70-130% |

5.1.1  
5

## Method Blank Summary

Page 1 of 1

**Job Number:** C33924  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample   | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|----------|----------|----|----------|----|-----------|------------|------------------|
| VU748-MB | U18774.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-4, C33924-5

| CAS No.   | Compound                | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------|--------|-----|------|-------|---|
| 71-43-2   | Benzene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 100-41-4  | Ethylbenzene            | ND     | 1.0 | 0.20 | ug/l  |   |
| 1634-04-4 | Methyl Tert Butyl Ether | ND     | 1.0 | 0.20 | ug/l  |   |
| 108-88-3  | Toluene                 | ND     | 1.0 | 0.20 | ug/l  |   |
| 1330-20-7 | Xylene (total)          | ND     | 2.0 | 0.46 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 1868-53-7 | Dibromofluoromethane | 105% 70-130% |
| 2037-26-5 | Toluene-D8           | 103% 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 105% 70-130% |

5.1.2  
5

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VU747-BS  | U18742.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |
| VU747-BSD | U18743.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-1, C33924-2, C33924-3

| CAS No.   | Compound                | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 20            | 17.9        | 90       | 17.8        | 89       | 1   | 77-122/25         |
| 100-41-4  | Ethylbenzene            | 20            | 19.4        | 97       | 19.6        | 98       | 1   | 76-126/17         |
| 1634-04-4 | Methyl Tert Butyl Ether | 20            | 20.1        | 101      | 20.5        | 103      | 2   | 73-132/17         |
| 108-88-3  | Toluene                 | 20            | 18.6        | 93       | 19.0        | 95       | 2   | 75-122/17         |
| 1330-20-7 | Xylene (total)          | 60            | 60.3        | 101      | 60.7        | 101      | 1   | 77-125/17         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 99%  | 100% | 70-130% |
| 2037-26-5 | Toluene-D8           | 100% | 101% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 111% | 110% | 70-130% |

\* = Outside of Control Limits.



## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VU748-BS  | U18770.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |
| VU748-BSD | U18771.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-4, C33924-5

| CAS No.   | Compound                | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | 20            | 18.3        | 92       | 18.4        | 92       | 1   | 77-122/25         |
| 100-41-4  | Ethylbenzene            | 20            | 19.3        | 97       | 19.6        | 98       | 2   | 76-126/17         |
| 1634-04-4 | Methyl Tert Butyl Ether | 20            | 20.8        | 104      | 21.3        | 107      | 2   | 73-132/17         |
| 108-88-3  | Toluene                 | 20            | 18.9        | 95       | 19.2        | 96       | 2   | 75-122/17         |
| 1330-20-7 | Xylene (total)          | 60            | 59.7        | 100      | 60.4        | 101      | 1   | 77-125/17         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 101% | 103% | 70-130% |
| 2037-26-5 | Toluene-D8           | 102% | 101% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 109% | 109% | 70-130% |

\* = Outside of Control Limits.

## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VU747-LCS | U18744.D | 1  | 05/09/14 | TF | n/a       | n/a        | VU747            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-1, C33924-2, C33924-3

| CAS No. | Compound | Spike<br>ug/l | LCS<br>ug/l | LCS<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
|---------|----------|---------------|-------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 100% | 70-130% |
| 2037-26-5 | Toluene-D8           | 102% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 108% | 70-130% |

\* = Outside of Control Limits.

## Laboratory Control Sample Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample    | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|----------|----|----------|----|-----------|------------|------------------|
| VU748-LCS | U18772.D | 1  | 05/12/14 | TF | n/a       | n/a        | VU748            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-4, C33924-5

| CAS No. | Compound | Spike<br>ug/l | LCS<br>ug/l | LCS<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
|---------|----------|---------------|-------------|----------|--------|

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 1868-53-7 | Dibromofluoromethane | 103% | 70-130% |
| 2037-26-5 | Toluene-D8           | 104% | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 107% | 70-130% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33924  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| C33946-2MS  | U18792.D | 50 | 05/12/14 | TF | n/a       | n/a        | VU748            |
| C33946-2MSD | U18793.D | 50 | 05/12/14 | TF | n/a       | n/a        | VU748            |
| C33946-2    | U18789.D | 50 | 05/12/14 | TF | n/a       | n/a        | VU748            |

The QC reported here applies to the following samples:

Method: SW846 8260B

C33924-4, C33924-5

| CAS No.   | Compound                | C33946-2<br>ug/l | Q | Spike<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|-------------------------|------------------|---|---------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 71-43-2   | Benzene                 | ND               |   | 1000          | 1040       | 104     | 1000          | 1010        | 101      | 3   | 77-122/16         |
| 100-41-4  | Ethylbenzene            | ND               |   | 1000          | 1070       | 107     | 1000          | 1030        | 103      | 4   | 76-126/17         |
| 1634-04-4 | Methyl Tert Butyl Ether | 10.6             |   | 1000          | 1270       | 126     | 1000          | 1220        | 121      | 4   | 73-132/17         |
| 108-88-3  | Toluene                 | ND               |   | 1000          | 1060       | 106     | 1000          | 1010        | 101      | 5   | 75-122/17         |
| 1330-20-7 | Xylene (total)          | ND               |   | 3000          | 3310       | 110     | 3000          | 3190        | 106      | 4   | 77-125/17         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | C33946-2 | Limits  |
|-----------|----------------------|------|------|----------|---------|
| 1868-53-7 | Dibromofluoromethane | 108% | 108% | 109%     | 70-130% |
| 2037-26-5 | Toluene-D8           | 100% | 99%  | 101%     | 70-130% |
| 460-00-4  | 4-Bromofluorobenzene | 112% | 114% | 106%     | 70-130% |

\* = Outside of Control Limits.



## GC/MS Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|----------|----|----------|----|-----------|------------|------------------|
| OP10006-MB | X36357.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No.  | Compound               | Result | RL   | MDL   | Units | Q |
|----------|------------------------|--------|------|-------|-------|---|
| 83-32-9  | Acenaphthene           | ND     | 0.50 | 0.050 | ug/l  |   |
| 208-96-8 | Acenaphthylene         | ND     | 0.50 | 0.050 | ug/l  |   |
| 120-12-7 | Anthracene             | ND     | 0.50 | 0.050 | ug/l  |   |
| 56-55-3  | Benzo(a)anthracene     | ND     | 0.10 | 0.053 | ug/l  |   |
| 50-32-8  | Benzo(a)pyrene         | ND     | 0.10 | 0.041 | ug/l  |   |
| 205-99-2 | Benzo(b)fluoranthene   | ND     | 0.10 | 0.035 | ug/l  |   |
| 191-24-2 | Benzo(g,h,i)perylene   | ND     | 0.10 | 0.036 | ug/l  |   |
| 207-08-9 | Benzo(k)fluoranthene   | ND     | 0.10 | 0.039 | ug/l  |   |
| 218-01-9 | Chrysene               | ND     | 0.10 | 0.045 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene | ND     | 0.10 | 0.035 | ug/l  |   |
| 206-44-0 | Fluoranthene           | ND     | 0.50 | 0.050 | ug/l  |   |
| 86-73-7  | Fluorene               | ND     | 0.50 | 0.050 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND     | 0.10 | 0.035 | ug/l  |   |
| 90-12-0  | 1-Methylnaphthalene    | ND     | 0.50 | 0.10  | ug/l  |   |
| 91-57-6  | 2-Methylnaphthalene    | ND     | 0.50 | 0.10  | ug/l  |   |
| 91-20-3  | Naphthalene            | ND     | 0.50 | 0.10  | ug/l  |   |
| 85-01-8  | Phenanthrene           | ND     | 0.50 | 0.050 | ug/l  |   |
| 129-00-0 | Pyrene                 | ND     | 0.50 | 0.050 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 4165-60-0 | Nitrobenzene-d5      | 78% 31-128%  |
| 321-60-8  | 2-Fluorobiphenyl     | 83% 34-123%  |
| 1718-51-0 | Terphenyl-d14        | 109% 43-136% |

6.1.1  
6

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10006-BS  | X36346.D | 1  | 05/12/14 | AA | 05/08/14  | OP10006    | EX1588           |
| OP10006-BSD | X36347.D | 1  | 05/12/14 | AA | 05/08/14  | OP10006    | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No.  | Compound               | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 5             | 4.1         | 82       | 4.3         | 86       | 5   | 57-113/24         |
| 208-96-8 | Acenaphthylene         | 5             | 4.0         | 80       | 4.2         | 84       | 5   | 58-117/25         |
| 120-12-7 | Anthracene             | 5             | 4.2         | 84       | 4.3         | 86       | 2   | 65-121/23         |
| 56-55-3  | Benzo(a)anthracene     | 5             | 4.7         | 94       | 4.7         | 94       | 0   | 62-121/21         |
| 50-32-8  | Benzo(a)pyrene         | 5             | 4.6         | 92       | 4.5         | 90       | 2   | 65-125/20         |
| 205-99-2 | Benzo(b)fluoranthene   | 5             | 4.9         | 98       | 4.8         | 96       | 2   | 62-126/22         |
| 191-24-2 | Benzo(g,h,i)perylene   | 5             | 4.6         | 92       | 5.3         | 106      | 14  | 45-133/22         |
| 207-08-9 | Benzo(k)fluoranthene   | 5             | 5.3         | 106      | 5.0         | 100      | 6   | 61-122/20         |
| 218-01-9 | Chrysene               | 5             | 4.9         | 98       | 5.0         | 100      | 2   | 62-118/20         |
| 53-70-3  | Dibenzo(a,h)anthracene | 5             | 4.7         | 94       | 5.4         | 108      | 14  | 45-135/25         |
| 206-44-0 | Fluoranthene           | 5             | 4.6         | 92       | 4.6         | 92       | 0   | 63-118/21         |
| 86-73-7  | Fluorene               | 5             | 4.3         | 86       | 4.3         | 86       | 0   | 59-115/24         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5             | 4.7         | 94       | 5.3         | 106      | 12  | 51-130/26         |
| 90-12-0  | 1-Methylnaphthalene    | 5             | 3.8         | 76       | 3.9         | 78       | 3   | 53-107/25         |
| 91-57-6  | 2-Methylnaphthalene    | 5             | 3.8         | 76       | 4.0         | 80       | 5   | 56-115/26         |
| 91-20-3  | Naphthalene            | 5             | 3.7         | 74       | 3.9         | 78       | 5   | 54-110/23         |
| 85-01-8  | Phenanthrene           | 5             | 4.5         | 90       | 4.6         | 92       | 2   | 60-114/26         |
| 129-00-0 | Pyrene                 | 5             | 4.6         | 92       | 4.8         | 96       | 4   | 58-124/21         |

| CAS No.   | Surrogate Recoveries | BSP | BSD | Limits  |
|-----------|----------------------|-----|-----|---------|
| 4165-60-0 | Nitrobenzene-d5      | 76% | 77% | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 83% | 85% | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 97% | 95% | 43-136% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID  | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|----------|----|----------|----|-----------|------------|------------------|
| OP10006-MS  | X36351.D | 1  | 05/12/14 | AA | 05/08/14  | OP10006    | EX1588           |
| OP10006-MSD | X36352.D | 1  | 05/13/14 | AA | 05/08/14  | OP10006    | EX1588           |
| C33896-1    | X36350.D | 1  | 05/12/14 | AA | 05/08/14  | OP10006    | EX1588           |

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No.  | Compound               | C33896-1<br>ug/l | Q | Spike<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|------------------------|------------------|---|---------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 83-32-9  | Acenaphthene           | 0.53 U           |   | 10            | 8.2        | 82      | 10            | 8.4         | 84       | 2   | 57-113/24         |
| 208-96-8 | Acenaphthylene         | 0.53 U           |   | 10            | 8.0        | 80      | 10            | 8.2         | 82       | 2   | 58-117/25         |
| 120-12-7 | Anthracene             | 0.53 U           |   | 10            | 8.0        | 80      | 10            | 8.3         | 83       | 4   | 65-121/23         |
| 56-55-3  | Benzo(a)anthracene     | 0.11 U           |   | 10            | 8.8        | 88      | 10            | 9.1         | 91       | 3   | 62-121/21         |
| 50-32-8  | Benzo(a)pyrene         | 0.11 U           |   | 10            | 8.1        | 81      | 10            | 8.8         | 88       | 8   | 65-125/20         |
| 205-99-2 | Benzo(b)fluoranthene   | 0.11 U           |   | 10            | 9.2        | 92      | 10            | 9.5         | 95       | 3   | 62-126/22         |
| 191-24-2 | Benzo(g,h,i)perylene   | 0.11 U           |   | 10            | 9.1        | 91      | 10            | 10.1        | 101      | 10  | 45-133/22         |
| 207-08-9 | Benzo(k)fluoranthene   | 0.11 U           |   | 10            | 9.1        | 91      | 10            | 9.5         | 95       | 4   | 61-122/20         |
| 218-01-9 | Chrysene               | 0.11 U           |   | 10            | 9.4        | 94      | 10            | 9.6         | 96       | 2   | 62-118/20         |
| 53-70-3  | Dibenzo(a,h)anthracene | 0.11 U           |   | 10            | 9.5        | 95      | 10            | 10.5        | 105      | 10  | 45-135/25         |
| 206-44-0 | Fluoranthene           | 0.53 U           |   | 10            | 8.7        | 87      | 10            | 9.1         | 91       | 4   | 63-118/21         |
| 86-73-7  | Fluorene               | 0.53 U           |   | 10            | 8.3        | 83      | 10            | 8.6         | 86       | 4   | 59-115/24         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.11 U           |   | 10            | 9.3        | 93      | 10            | 10.3        | 103      | 10  | 51-130/26         |
| 90-12-0  | 1-Methylnaphthalene    | 0.53 U           |   | 10            | 7.5        | 75      | 10            | 7.6         | 76       | 1   | 53-107/25         |
| 91-57-6  | 2-Methylnaphthalene    | 0.53 U           |   | 10            | 7.6        | 76      | 10            | 7.7         | 77       | 1   | 56-115/26         |
| 91-20-3  | Naphthalene            | 0.53 U           |   | 10            | 7.3        | 73      | 10            | 7.2         | 72       | 1   | 54-110/23         |
| 85-01-8  | Phenanthrene           | 0.53 U           |   | 10            | 8.6        | 86      | 10            | 8.9         | 89       | 3   | 60-114/26         |
| 129-00-0 | Pyrene                 | 0.53 U           |   | 10            | 8.7        | 87      | 10            | 8.7         | 87       | 0   | 58-124/21         |

| CAS No.   | Surrogate Recoveries | MS  | MSD | C33896-1 | Limits  |
|-----------|----------------------|-----|-----|----------|---------|
| 4165-60-0 | Nitrobenzene-d5      | 71% | 70% | 74%      | 31-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 79% | 81% | 81%      | 34-123% |
| 1718-51-0 | Terphenyl-d14        | 85% | 86% | 89%      | 43-136% |

\* = Outside of Control Limits.



## GC Volatiles

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## QC Data Summaries

7

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

**Job Number:** C33924  
**Account:** ETCHIH EnviroServices and Training Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1801-MB | JK44019.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound         | Result | RL    | MDL   | Units | Q |
|---------|------------------|--------|-------|-------|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 0.050 | 0.020 | mg/l  |   |

| CAS No. | Surrogate Recoveries | Limits       |
|---------|----------------------|--------------|
| 98-08-8 | aaa-Trifluorotoluene | 102% 51-127% |

7.1.1

7

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GJK1801-BS  | JK44020.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| GJK1801-BSD | JK44021.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound         | Spike<br>mg/l | BSP<br>mg/l | BSP<br>% | BSD<br>mg/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | 0.25          | 0.242       | 97       | 0.256       | 102      | 6   | 78-125/14         |

| CAS No. | Surrogate Recoveries | BSP  | BSD | Limits  |
|---------|----------------------|------|-----|---------|
| 98-08-8 | aaa-Trifluorotoluene | 100% | 95% | 51-127% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C33924  
 Account: ETCHIH EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| C33924-1MS  | JK44025.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| C33924-1MSD | JK44031.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |
| C33924-1    | JK44024.D | 1  | 05/13/14 | TT | n/a       | n/a        | GJK1801          |

The QC reported here applies to the following samples:

Method: SW846 8015B

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound         | C33924-1<br>mg/l | Q | Spike<br>mg/l | MS<br>mg/l | MS<br>% | Spike<br>mg/l | MSD<br>mg/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|------------------|---|---------------|------------|---------|---------------|-------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND               |   | 0.25          | 0.225      | 90      | 0.25          | 0.253       | 101      | 12  | 78-125/14         |

| CAS No. | Surrogate Recoveries | MS  | MSD | C33924-1 | Limits  |
|---------|----------------------|-----|-----|----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 89% | 99% | 93%      | 51-127% |

\* = Outside of Control Limits.



## GC Semi-volatiles

### QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| OP10012-MB | MM021835.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No.    | Compound            | Result | RL    | MDL    | Units | Q |
|------------|---------------------|--------|-------|--------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.010 | 0.0020 | ug/l  |   |
| 319-84-6   | alpha-BHC           | ND     | 0.010 | 0.0026 | ug/l  |   |
| 319-85-7   | beta-BHC            | ND     | 0.010 | 0.0045 | ug/l  |   |
| 319-86-8   | delta-BHC           | ND     | 0.010 | 0.0033 | ug/l  |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.010 | 0.0025 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.10  | 0.010  | ug/l  |   |
| 60-57-1    | Dieldrin            | ND     | 0.010 | 0.0021 | ug/l  |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.010 | 0.0023 | ug/l  |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.010 | 0.0030 | ug/l  |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.010 | 0.0024 | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.010 | 0.0032 | ug/l  |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.010 | 0.0042 | ug/l  |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.010 | 0.0024 | ug/l  |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.010 | 0.0022 | ug/l  |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.010 | 0.0025 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.010 | 0.0028 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.010 | 0.0035 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.010 | 0.0020 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.20  | 0.060  | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 877-09-8  | Tetrachloro-m-xylene | 82% 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 88% 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 95% 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 95% 46-128% |

8.1.1  
8

## Method Blank Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10011-MB | GG51721.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound        | Result | RL   | MDL   | Units | Q |
|---------|-----------------|--------|------|-------|-------|---|
|         | TPH (C10-C28)   | ND     | 0.10 | 0.025 | mg/l  |   |
|         | TPH (> C28-C40) | ND     | 0.20 | 0.050 | mg/l  |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 630-01-3 | Hexacosane           | 100% 32-124% |

8.1.2  
8

## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924  
Account: ETCHIH EnviroServices and Traning Center  
Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP10012-BS  | MM021836.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |
| OP10012-BSD | MM021837.D | 1  | 05/09/14 | RV | 05/09/14  | OP10012    | GMM646           |

The QC reported here applies to the following samples:

Method: SW846 8081A

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No.    | Compound            | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | 0.1           | 0.082       | 82       | 0.074       | 74       | 10  | 46-110/22         |
| 319-84-6   | alpha-BHC           | 0.1           | 0.084       | 84       | 0.080       | 80       | 5   | 39-111/32         |
| 319-85-7   | beta-BHC            | 0.1           | 0.091       | 91       | 0.086       | 86       | 6   | 38-121/31         |
| 319-86-8   | delta-BHC           | 0.1           | 0.098       | 98       | 0.091       | 91       | 7   | 37-114/33         |
| 58-89-9    | gamma-BHC (Lindane) | 0.1           | 0.093       | 93       | 0.088       | 88       | 6   | 38-121/31         |
| 60-57-1    | Dieldrin            | 0.1           | 0.095       | 95       | 0.090       | 90       | 5   | 46-127/22         |
| 72-54-8    | 4,4'-DDD            | 0.1           | 0.10        | 100      | 0.093       | 93       | 7   | 50-121/22         |
| 72-55-9    | 4,4'-DDE            | 0.1           | 0.10        | 100      | 0.094       | 94       | 6   | 48-120/23         |
| 50-29-3    | 4,4'-DDT            | 0.1           | 0.10        | 100      | 0.094       | 94       | 6   | 44-121/22         |
| 72-20-8    | Endrin              | 0.1           | 0.10        | 100      | 0.092       | 92       | 8   | 55-135/24         |
| 7421-93-4  | Endrin aldehyde     | 0.1           | 0.098       | 98       | 0.093       | 93       | 5   | 37-120/27         |
| 959-98-8   | Endosulfan-I        | 0.1           | 0.084       | 84       | 0.080       | 80       | 5   | 47-123/24         |
| 33213-65-9 | Endosulfan-II       | 0.1           | 0.094       | 94       | 0.087       | 87       | 8   | 49-123/23         |
| 1031-07-8  | Endosulfan sulfate  | 0.1           | 0.11        | 110      | 0.10        | 100      | 10  | 47-122/27         |
| 76-44-8    | Heptachlor          | 0.1           | 0.099       | 99       | 0.095       | 95       | 4   | 58-137/23         |
| 1024-57-3  | Heptachlor epoxide  | 0.1           | 0.094       | 94       | 0.090       | 90       | 4   | 51-117/23         |
| 72-43-5    | Methoxychlor        | 0.1           | 0.11        | 110      | 0.10        | 100      | 10  | 50-129/24         |

| CAS No.   | Surrogate Recoveries | BSP  | BSD | Limits  |
|-----------|----------------------|------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%  | 84% | 40-114% |
| 877-09-8  | Tetrachloro-m-xylene | 98%  | 90% | 40-114% |
| 2051-24-3 | Decachlorobiphenyl   | 106% | 97% | 46-128% |
| 2051-24-3 | Decachlorobiphenyl   | 102% | 88% | 46-128% |

\* = Outside of Control Limits.



## Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C33924

Account: ETCHIH EnviroServices and Training Center

Project: Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10011-BS  | GG51719.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| OP10011-BSD | GG51720.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound        | Spike<br>mg/l | BSP<br>mg/l | BSP<br>% | BSD<br>mg/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | 1             | 0.851       | 85       | 0.837       | 84       | 2   | 38-115/22         |
|         | TPH (> C28-C40) | 1             | 0.874       | 87       | 0.882       | 88       | 1   | 45-114/20         |

| CAS No.  | Surrogate Recoveries | BSP | BSD | Limits  |
|----------|----------------------|-----|-----|---------|
| 630-01-3 | Hexacosane           | 91% | 95% | 32-124% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** C33924  
**Account:** ETCHIH EnviroServices and Traning Center  
**Project:** Kahului Harbor Parcel-Maui, HI

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP10011-MS  | GG51725.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| OP10011-MSD | GG51726.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |
| C33899-14   | GG51724.D | 1  | 05/09/14 | NN | 05/09/14  | OP10011    | GGG1465          |

The QC reported here applies to the following samples:

Method: SW846 8015B M

C33924-1, C33924-2, C33924-3, C33924-4, C33924-5

| CAS No. | Compound        | C33899-14<br>mg/l | Spike<br>Q | MS<br>mg/l | MS<br>% | Spike<br>mg/l | MSD<br>mg/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-----------------|-------------------|------------|------------|---------|---------------|-------------|----------|-----|-------------------|
|         | TPH (C10-C28)   | ND                | 1.89       | 1.62       | 86      | 1.89          | 1.65        | 87       | 2   | 38-115/22         |
|         | TPH (> C28-C40) | ND                | 1.89       | 1.73       | 92      | 1.89          | 1.81        | 96       | 5   | 45-114/20         |

| CAS No.  | Surrogate Recoveries | MS  | MSD | C33899-14 | Limits  |
|----------|----------------------|-----|-----|-----------|---------|
| 630-01-3 | Hexacosane           | 92% | 94% | 95%       | 32-124% |

\* = Outside of Control Limits.

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33924  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7820  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 05/12/14

| Metal      | RL    | IDL | MDL | MB<br>raw | final |
|------------|-------|-----|-----|-----------|-------|
| Aluminum   | 200   | 13  | 8.5 |           |       |
| Antimony   | 6.0   | .7  | .51 |           |       |
| Arsenic    | 10    | .7  | .65 | 0.90      | <10   |
| Barium     | 200   | .4  | .35 | 2.8       | <200  |
| Beryllium  | 5.0   | .2  | .4  |           |       |
| Boron      | 100   | .9  | .64 |           |       |
| Cadmium    | 2.0   | .2  | .15 | -0.80     | <2.0  |
| Calcium    | 5000  | 7.1 | 12  |           |       |
| Chromium   | 10    | .3  | .41 | -2.2      | <10   |
| Cobalt     | 5.0   | .2  | .3  |           |       |
| Copper     | 10    | 1.2 | 3   |           |       |
| Iron       | 200   | 6.4 | 12  |           |       |
| Lead       | 10    | .7  | .85 | 1.4       | <10   |
| Lithium    | 50    |     | 2   |           |       |
| Magnesium  | 5000  | 27  | 36  |           |       |
| Manganese  | 15    | .1  | 1.3 |           |       |
| Molybdenum | 20    | .2  | .22 |           |       |
| Nickel     | 5.0   | .2  | .12 |           |       |
| Potassium  | 10000 | 18  | 44  |           |       |
| Selenium   | 10    | 1.8 | 2.2 | 2.0       | <10   |
| Silicon    | 100   | 1.2 | 6.9 |           |       |
| Silver     | 5.0   | .3  | .47 | 1.4       | <5.0  |
| Sodium     | 10000 | 15  | 13  |           |       |
| Strontium  | 10    | .2  | .24 |           |       |
| Thallium   | 10    | .5  | .54 |           |       |
| Tin        | 50    | .2  | .7  |           |       |
| Titanium   | 10    | .4  | .34 |           |       |
| Vanadium   | 10    | .3  | .3  |           |       |
| Zinc       | 20    | .3  | 4.2 |           |       |

Associated samples MP7820: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested



## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7820  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/12/14

| Metal      | C33924-1F<br>Original MS |     | Spikelet<br>MPIR5 % Rec |       | QC<br>Limits |
|------------|--------------------------|-----|-------------------------|-------|--------------|
| Aluminum   |                          |     |                         |       |              |
| Antimony   |                          |     |                         |       |              |
| Arsenic    | 76.6                     | 638 | 500                     | 112.3 | 75-125       |
| Barium     | 11.6                     | 506 | 500                     | 98.9  | 75-125       |
| Beryllium  |                          |     |                         |       |              |
| Boron      |                          |     |                         |       |              |
| Cadmium    | 0.0                      | 569 | 500                     | 113.8 | 75-125       |
| Calcium    |                          |     |                         |       |              |
| Chromium   | 0.0                      | 527 | 500                     | 105.4 | 75-125       |
| Cobalt     |                          |     |                         |       |              |
| Copper     |                          |     |                         |       |              |
| Iron       |                          |     |                         |       |              |
| Lead       | 0.0                      | 504 | 500                     | 100.8 | 75-125       |
| Lithium    |                          |     |                         |       |              |
| Magnesium  |                          |     |                         |       |              |
| Manganese  |                          |     |                         |       |              |
| Molybdenum |                          |     |                         |       |              |
| Nickel     |                          |     |                         |       |              |
| Potassium  |                          |     |                         |       |              |
| Selenium   | 0.0                      | 556 | 500                     | 111.2 | 75-125       |
| Silicon    |                          |     |                         |       |              |
| Silver     | 0.0                      | 575 | 500                     | 116.0 | 75-125       |
| Sodium     |                          |     |                         |       |              |
| Strontium  |                          |     |                         |       |              |
| Thallium   |                          |     |                         |       |              |
| Tin        |                          |     |                         |       |              |
| Titanium   |                          |     |                         |       |              |
| Vanadium   |                          |     |                         |       |              |
| Zinc       |                          |     |                         |       |              |

Associated samples MP7820: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

9.1.2  
9

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7820  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/12/14

| Metal      | C33924-1F<br>Original MSD |     | Spikelot<br>MPIR5 % Rec |       | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-----|-------------------------|-------|------------|-------------|
| Aluminum   |                           |     |                         |       |            |             |
| Antimony   |                           |     |                         |       |            |             |
| Arsenic    | 76.6                      | 624 | 500                     | 109.5 | 2.2        | 20          |
| Barium     | 11.6                      | 508 | 500                     | 99.3  | 0.4        | 20          |
| Beryllium  |                           |     |                         |       |            |             |
| Boron      |                           |     |                         |       |            |             |
| Cadmium    | 0.0                       | 578 | 500                     | 115.6 | 1.6        | 20          |
| Calcium    |                           |     |                         |       |            |             |
| Chromium   | 0.0                       | 528 | 500                     | 105.6 | 0.2        | 20          |
| Cobalt     |                           |     |                         |       |            |             |
| Copper     |                           |     |                         |       |            |             |
| Iron       |                           |     |                         |       |            |             |
| Lead       | 0.0                       | 506 | 500                     | 101.2 | 0.4        | 20          |
| Lithium    |                           |     |                         |       |            |             |
| Magnesium  |                           |     |                         |       |            |             |
| Manganese  |                           |     |                         |       |            |             |
| Molybdenum |                           |     |                         |       |            |             |
| Nickel     |                           |     |                         |       |            |             |
| Potassium  |                           |     |                         |       |            |             |
| Selenium   | 0.0                       | 554 | 500                     | 110.8 | 0.4        | 20          |
| Silicon    |                           |     |                         |       |            |             |
| Silver     | 0.0                       | 579 | 500                     | 115.8 | 0.7        | 20          |
| Sodium     |                           |     |                         |       |            |             |
| Strontium  |                           |     |                         |       |            |             |
| Thallium   |                           |     |                         |       |            |             |
| Tin        |                           |     |                         |       |            |             |
| Titanium   |                           |     |                         |       |            |             |
| Vanadium   |                           |     |                         |       |            |             |
| Zinc       |                           |     |                         |       |            |             |

Associated samples MP7820: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7820  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/12/14

| Metal      | BSP<br>Result | Spikelot<br>MPIR5 | % Rec | QC<br>Limits |
|------------|---------------|-------------------|-------|--------------|
| Aluminum   |               |                   |       |              |
| Antimony   |               |                   |       |              |
| Arsenic    | 499           | 500               | 99.8  | 80-120       |
| Barium     | 484           | 500               | 96.8  | 80-120       |
| Beryllium  |               |                   |       |              |
| Boron      |               |                   |       |              |
| Cadmium    | 506           | 500               | 101.2 | 80-120       |
| Calcium    |               |                   |       |              |
| Chromium   | 524           | 500               | 104.8 | 80-120       |
| Cobalt     |               |                   |       |              |
| Copper     |               |                   |       |              |
| Iron       |               |                   |       |              |
| Lead       | 494           | 500               | 98.8  | 80-120       |
| Lithium    |               |                   |       |              |
| Magnesium  |               |                   |       |              |
| Manganese  |               |                   |       |              |
| Molybdenum |               |                   |       |              |
| Nickel     |               |                   |       |              |
| Potassium  |               |                   |       |              |
| Selenium   | 492           | 500               | 98.4  | 80-120       |
| Silicon    |               |                   |       |              |
| Silver     | 498           | 500               | 99.6  | 80-120       |
| Sodium     |               |                   |       |              |
| Strontium  |               |                   |       |              |
| Thallium   |               |                   |       |              |
| Tin        |               |                   |       |              |
| Titanium   |               |                   |       |              |
| Vanadium   |               |                   |       |              |
| Zinc       |               |                   |       |              |

Associated samples MP7820: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

9.1.3  
9

SERIAL DILUTION RESULTS SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7820  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 05/12/14

| Metal      | C33924-1F<br>Original SDL 1:5 |      | %DIF | QC<br>Limits |
|------------|-------------------------------|------|------|--------------|
| Aluminum   |                               |      |      |              |
| Antimony   |                               |      |      |              |
| Arsenic    | 76.6                          | 80.8 | 5.5  | 0-10         |
| Barium     | 11.6                          | 11.6 | 0.0  | 0-10         |
| Beryllium  |                               |      |      |              |
| Boron      |                               |      |      |              |
| Cadmium    | 0.00                          | 0.00 | NC   | 0-10         |
| Calcium    |                               |      |      |              |
| Chromium   | 0.00                          | 0.00 | NC   | 0-10         |
| Cobalt     |                               |      |      |              |
| Copper     |                               |      |      |              |
| Iron       |                               |      |      |              |
| Lead       | 0.00                          | 0.00 | NC   | 0-10         |
| Lithium    |                               |      |      |              |
| Magnesium  |                               |      |      |              |
| Manganese  |                               |      |      |              |
| Molybdenum |                               |      |      |              |
| Nickel     |                               |      |      |              |
| Potassium  |                               |      |      |              |
| Selenium   | 0.00                          | 0.00 | NC   | 0-10         |
| Silicon    |                               |      |      |              |
| Silver     | 0.00                          | 20.2 | NC   | 0-10         |
| Sodium     |                               |      |      |              |
| Strontium  |                               |      |      |              |
| Thallium   |                               |      |      |              |
| Tin        |                               |      |      |              |
| Titanium   |                               |      |      |              |
| Vanadium   |                               |      |      |              |
| Zinc       |                               |      |      |              |

Associated samples MP7820: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

9.1.4  
9



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C33924  
Account: ETCHIH - EnviroServices and Training Center  
Project: Kahului Harbor Parcel-Maul, HI

QC Batch ID: MP7826  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 05/12/14

| Metal   | RL   | IDL   | MDL | MB    |       |
|---------|------|-------|-----|-------|-------|
|         |      |       |     | raw   | final |
| Mercury | 0.20 | .0042 | .08 | 0.095 | <0.20 |

Associated samples MP7826: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

9.2.1  
9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7826  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 05/12/14

| Metal   | C33924-1F   |        | Spikelet |        | QC     |  |
|---------|-------------|--------|----------|--------|--------|--|
|         | Original MS | HGPWS1 | % Rec    | Limits |        |  |
| Mercury | 0.10        | 4.3    | 4        | 105.0  | 75-125 |  |

Associated samples MP7826: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.2.2  
 9

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7826  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 05/12/14

| Metal   | C33924-1F |     | SpikeLot |       | MSD | QC    |
|---------|-----------|-----|----------|-------|-----|-------|
|         | Original  | MSD | HGPWS1   | % Rec | RPD | Limit |
| Mercury | 0.10      | 4.5 | 4        | 110.0 | 4.5 | 30    |

Associated samples MP7826: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

9.2.2  
 9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33924  
 Account: ETCHIH - EnviroServices and Training Center  
 Project: Kahului Harbor Parcel-Maui, HI

QC Batch ID: MP7826  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 05/12/14

| Metal   | BSP    | Spikelot | QC    |        |
|---------|--------|----------|-------|--------|
|         | Result | HGPWS1   | % Rec | Limits |
| Mercury | 2.0    | 2        | 100.0 | 85-115 |

Associated samples MP7826: C33924-1F, C33924-2F, C33924-3F, C33924-4F, C33924-5F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

9.2.3  
 9





## ADVANCED ANALYTICAL LABORATORY INC

### AAL Project #T342

### EnviroServices & Training Center

Client Project #: 14-2003

Method: 8015M

Client Project Name: Kahului Harbor Parcel B

Matrix: Soil

| CLIENT<br>SAMPLE ID | TPH-DIESEL<br>[mg/kg] | TPH-OIL<br>[mg/kg] | SURROGATE<br>RECOVERY | FLAGS | DATE<br>ANALYZED |
|---------------------|-----------------------|--------------------|-----------------------|-------|------------------|
| Blank               | nd                    | nd                 | 104%                  |       | 6/5/2018         |
| 2003.SS16           | nd                    | 230                | 125%                  |       | 6/5/2018         |
| 2003.SS17           | nd                    | 350                | 123%                  |       | 6/5/2018         |
| PQL                 | 50                    | 100                | Acceptable Range      |       |                  |
| MDL                 | 20                    | 35                 | 70%-130%              |       |                  |

#### QA/QC DATA

|                         | TPH-DIESEL<br>[mg/kg] | TPH-OIL<br>[mg/kg] |                  |
|-------------------------|-----------------------|--------------------|------------------|
| QC BATCH # 060518       |                       |                    | Acceptable Range |
| Lab Control Spike (LCS) | 507                   | 525                | 350-650          |
| Matrix Spike (MS)       | 499                   | 505                | 350-650          |
| Matrix Spike Dup (MSD)  | 499                   | 512                | 350-650          |
| Recovery LCS            | 101%                  | 105%               | 70%-130%         |
| Recovery MS             | 100%                  | 101%               | 70%-130%         |
| Recovery MSD            | 100%                  | 102%               | 70%-130%         |
| RPD of MS/MSD           | 0.0%                  | 1.4%               | 20%              |

Analyst: U. Baumgartner, Ph.D.

Data review: E. Young



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## Analytical Report

|                        |                                                                                       |                      |                    |
|------------------------|---------------------------------------------------------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b><br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | <b>Acculab WO#</b>   | <b>18-AL0607-2</b> |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young                                                          | <b>Date Sampled</b>  | 6/4/2018           |
| <b>Project Name</b>    | <b>Kahului Harbor Parcel B</b>                                                        | <b>Date Received</b> | 6/7/2018           |
| <b>Client Project#</b> | <b>14-2003</b>                                                                        | <b>Date Reported</b> | 6/12/2018          |
| <b>Project#</b>        | <b>T342</b>                                                                           |                      |                    |

## PAH in Soil by EPA 8270D SIM/3550C

Accu Lab Analytical Batch# AL060718-2

| Client sample ID |     |      |          | 2003.SS16 | 2003.SS17     | MS<br>2018    | MSD<br>2018   | RPD<br>2018   |
|------------------|-----|------|----------|-----------|---------------|---------------|---------------|---------------|
| Lab ID           | MRL | Unit | MTH BLK  | LCS       | 18-AL0607-2-1 | 18-AL0607-2-2 | 18-AL0605-8-1 | 18-AL0605-8-1 |
| Matrix           |     |      | Soil     | Soil      | Soil          | Soil          | Soil          | Soil          |
| Date Extracted   |     |      | 6/7/2018 | 6/7/2018  | 6/7/2018      | 6/7/2018      | 6/7/2018      | 6/7/2018      |
| Date Analyzed    |     |      | 6/7/2018 | 6/7/2018  | 6/7/2018      | 6/7/2018      | 6/7/2018      | 6/7/2018      |
| Moisture (%)     |     |      |          |           | 2%            | 1%            |               |               |

|                        |      |       |    |      |      |      |      |      |
|------------------------|------|-------|----|------|------|------|------|------|
| Naphthalene            | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| 2-Methylnaphthalene    | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| 1-Methylnaphthalene    | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| Acenaphthylene         | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| Acenaphthene           | 0.05 | mg/Kg | nd | 105% | nd   | nd   | 110% | 105% |
| Fluorene               | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| Phenanthrene           | 0.05 | mg/Kg | nd |      | 0.23 | 0.22 |      |      |
| Anthracene             | 0.05 | mg/Kg | nd |      | nd   | nd   |      |      |
| Fluoranthene           | 0.05 | mg/Kg | nd |      | 0.54 | 0.40 |      |      |
| Pyrene                 | 0.05 | mg/Kg | nd | 95%  | 0.48 | 0.35 | 86%  | 102% |
| Benzo(a)anthracene     | 0.05 | mg/Kg | nd |      | 0.16 | 0.11 |      |      |
| Chrysene               | 0.05 | mg/Kg | nd |      | 0.35 | 0.25 |      |      |
| Benzo(b)fluoranthene   | 0.10 | mg/Kg | nd |      | 0.23 | 0.21 |      |      |
| Benzo(k)fluoranthene   | 0.10 | mg/Kg | nd |      | 0.27 | 0.15 |      |      |
| Benzo(a)pyrene         | 0.10 | mg/Kg | nd |      | 0.18 | 0.15 |      |      |
| Indeno(1,2,3-cd)pyrene | 0.10 | mg/Kg | nd |      | 0.26 | 0.29 |      |      |
| Dibenzo(a,h)anthracene | 0.10 | mg/Kg | nd |      | 0.31 | 0.33 |      |      |
| Benzo(ghi)perylene     | 0.10 | mg/Kg | nd |      | 0.34 | 0.32 |      |      |

### Surrogate Recoveries

|                  |      |      |      |      |      |      |
|------------------|------|------|------|------|------|------|
| 2-Fluorobiphenyl | 109% | 132% | 115% | 99%  | 108% | 121% |
| Terphenyl-d14    | 119% | 112% | 95%  | 110% | 107% | 105% |

### Acceptable Recovery Limits:

|                       |         |
|-----------------------|---------|
| Surrogates/LCS        | 55-150% |
| MS/MSD                | 45-150% |
| Acceptable RPD Limit: | 30%     |

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## Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0607-2</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/4/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/7/2018           |
| <b>Project Name</b>    | Kahului Harbor Parcel B               | <b>Date Reported</b> | 6/12/2018          |
| <b>Client Project#</b> | 14-2003                               |                      |                    |
| <b>Project#</b>        | T342                                  |                      |                    |

## Polychlorinated Biphenyls in Soil by EPA 8082A/3550C

Accu Lab Analytical Batch# AL060818-2

|                  |     |      |          |          | 2003.         | 2003.         | MS            | MSD           | RPD           |
|------------------|-----|------|----------|----------|---------------|---------------|---------------|---------------|---------------|
|                  |     |      |          |          | SS16          | SS17          | 2003.         | 2003.         | 2003.         |
|                  |     |      |          |          | SS16          | SS17          | SS17          | SS17          | SS17          |
| Client sample ID | MRL | Unit | MTH BLK  | LCS      | 18-AL0607-2-1 | 18-AL0607-2-2 | 18-AL0607-2-2 | 18-AL0607-2-2 | 18-AL0607-2-2 |
| Lab ID           |     |      |          |          |               |               |               |               |               |
| Matrix           |     |      | Soil     | Soil     | Soil          | Soil          | Soil          | Soil          | Soil          |
| Date Extracted   |     |      | 6/8/2018 | 6/8/2018 | 6/8/2018      | 6/8/2018      | 6/8/2018      | 6/8/2018      | 6/8/2018      |
| Date Analyzed    |     |      | 6/8/2018 | 6/8/2018 | 6/8/2018      | 6/8/2018      | 6/8/2018      | 6/8/2018      | 6/8/2018      |

|       |     |       |    |      |    |    |      |      |    |
|-------|-----|-------|----|------|----|----|------|------|----|
| A1016 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1221 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1232 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1242 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1248 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1254 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |
| A1260 | 0.1 | mg/Kg | nd | 124% | nd | nd | 102% | 107% | 5% |
| A1262 | 0.1 | mg/Kg | nd |      | nd | nd |      |      |    |

### Surrogate Recoveries

|                      |     |      |      |      |      |      |
|----------------------|-----|------|------|------|------|------|
| Decachlorobiphenyl   | 77% | 127% | 108% | 110% | 105% | 106% |
| Tetrachloro-m-xylene | 77% | 83%  | 82%  | 120% | 123% | 117% |

Acceptable Recovery Limits:

Surrogates 70-130%

LCS/ MS/MSD 65-135%

Acceptable RPD limit: 30%





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## Analytical Report

|                        |                                                                                       |                      |                    |
|------------------------|---------------------------------------------------------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b><br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | <b>Acculab WO#</b>   | <b>18-AL0607-2</b> |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young                                                          | <b>Date Sampled</b>  | 6/4/2018           |
| <b>Project Name</b>    | <b>Kahului Harbor Parcel B</b>                                                        | <b>Date Received</b> | 6/7/2018           |
| <b>Client Project#</b> | <b>14-2003</b>                                                                        | <b>Date Reported</b> | 6/12/2018          |
| <b>Project#</b>        | <b>T342</b>                                                                           |                      |                    |

### Metals in Soil by EPA 6020B/EPA3050B

Accu Lab Analytical Batch# AL061118-2

| Client sample ID |     |      |           |           | 2003.SS16     | 2003.SS17     | MS<br>2003.SS17 | MSD<br>2003.SS17 | RPD<br>2003.SS17 |
|------------------|-----|------|-----------|-----------|---------------|---------------|-----------------|------------------|------------------|
| Lab ID           | MRL | Unit | MTH BLK   | LCS       | 18-AL0607-2-1 | 18-AL0607-2-2 | 18-AL0607-2-2   | 18-AL0607-2-2    | 18-AL0607-2-2    |
| Matrix           |     |      | Soil      | Soil      | Soil          | Soil          | Soil            | Soil             | Soil             |
| Date Digested    |     |      | 6/11/2018 | 6/11/2018 | 6/11/2018     | 6/11/2018     | 6/11/2018       | 6/11/2018        | 6/11/2018        |
| Date Analyzed    |     |      | 6/11/2018 | 6/11/2018 | 6/11/2018     | 6/11/2018     | 6/11/2018       | 6/11/2018        | 6/11/2018        |

|               |      |       |    |      |     |     |      |      |     |
|---------------|------|-------|----|------|-----|-----|------|------|-----|
| Arsenic (As)  | 1.0  | mg/Kg | nd | 107% | 13  | 15  | 87%  | 84%  | 4%  |
| Barium (Ba)   | 2.0  | mg/Kg | nd | 95%  | 76  | 75  | M    | M    |     |
| Cadmium (Cd)  | 1.0  | mg/Kg | nd | 98%  | 1.1 | 1.2 | 98%  | 101% | 3%  |
| Chromium (Cr) | 2.0  | mg/Kg | nd | 106% | 37  | 36  | 110% | 92%  | 17% |
| Lead (Pb)     | 1.0  | mg/Kg | nd | 94%  | 95  | 95  | M    | M    |     |
| Selenium (Se) | 1.0  | mg/Kg | nd | 96%  | nd  | nd  | 89%  | 96%  | 8%  |
| Silver (Ag)   | 1.0  | mg/Kg | nd | 89%  | nd  | nd  | 103% | 124% | 18% |
| Mercury (Hg)  | 0.20 | mg/Kg | nd | 108% | nd  | nd  | 94%  | 80%  | 16% |

Acceptable Recovery Limits:

LCS 80-120%

MS/MSD 75-125%

Acceptable RPD limit: 20%

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### *Analytical Report*

|                 |                                                                                |               |             |
|-----------------|--------------------------------------------------------------------------------|---------------|-------------|
| Client          | Advanced Analytical Laboratory<br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | Acculab WO#   | 18-AL0607-2 |
| Project Manager | Uwe Baumgartner/ Elisa Young                                                   | Date Sampled  | 6/4/2018    |
| Project Name    | Kahului Harbor Parcel B                                                        | Date Received | 6/7/2018    |
| Client Project# | 14-2003                                                                        | Date Reported | 6/12/2018   |
| Project#        | T342                                                                           |               |             |

#### Data Qualifiers and Comments:

##### *Results reported on dry-weight basis for soil samples.*

**MRL-** Method Reporting Limit

**nd-** Indicates the analyte is not detected at the listing reporting limit.

**C-** Coelution with other compounds.

**M-** % Recovery of surrogate, MS/MSD is out of the acceptable limit due to matrix effect.

**B-** Indicates the analyte is detected in the method blank associated with the sample.

**J-** The analyte is detected at below the reporting limit.

**E-** The result reported exceeds the calibration range, and is an estimate.

**D-** Sample required dilution due to matrix. Method Reporting Limits were elevated due to dilutions.

**H-** Sample was received or analyzed past holding time

**Q-** Sample was received with head space, improper preserved or above recommended temperature.

**I-** Due to insufficient sample, LCS/LCS DUP were analyzed in place of MS/MSD.

**R-** The recovery of this analyte in QC sample failed high, but the analyte was not detected in all related samples. No action was taken.

**R-1-** The RPD value for the MS/MSD was outside of QC acceptance limits however both recoveries were acceptable. All related samples were "nd". No action was taken.

Address: 3210 Koapaka Street#A Honolulu, HI 96819  
AAL PROJECT#:

2.52





## ADVANCED ANALYTICAL LABORATORY INC

### AAL Project #T346

### EnviroServices & Training Center

Client Project #: 14-2003

Method: 8015M

Client Project Name: KAHULUI HARBOR PARCEL B

Matrix: Water

| CLIENT<br>SAMPLE ID | TPH-DIESEL<br>[mg/L] | TPH-OIL<br>[mg/L] | SURROGATE<br>RECOVERY | FLAGS | DATE<br>ANALYZED |
|---------------------|----------------------|-------------------|-----------------------|-------|------------------|
| Blank               | nd                   | nd                | 102%                  |       | 6/12/2018        |
| 2003.MW6.GW         | nd                   | nd                | 118%                  |       | 6/12/2018        |
| 2003.MW8.GW         | nd                   | nd                | 110%                  |       | 6/12/2018        |
| PQL                 | 0.050                | 0.100             | Acceptable Range      |       |                  |
| MDL                 | 0.010                | 0.032             | 70%-130%              |       |                  |

#### QA/QC DATA

|                         | TPH-DIESEL<br>[mg/L] | TPH-OIL<br>[mg/L] |                  |
|-------------------------|----------------------|-------------------|------------------|
| QC BATCH # 061218       |                      |                   | Acceptable Range |
| Lab Control Spike (LCS) | 0.558                | 0.540             | 0.350-0.650      |
| Matrix Spike (MS)       | 0.542                | 0.529             | 0.350-0.650      |
| Matrix Spike Dup (MSD)  | 0.543                | 0.528             | 0.350-0.650      |
| Recovery LCS            | 112%                 | 108%              | 70%-130%         |
| Recovery MS             | 108%                 | 106%              | 70%-130%         |
| Recovery MSD            | 109%                 | 106%              | 70%-130%         |
| RPD of MS/MSD           | 0.2%                 | 0.2%              | 20%              |

Analyst: U. Baumgartner, Ph.D.

Data review: E. Young



## ADVANCED ANALYTICAL LABORATORY INC

### AAL Project #T346

### EnviroServices & Training Center

Client Project #: 14-2003 Method: 8015M  
Client Project Name: KAHULUI HARBOR PARCEL B Matrix: Water

| CLIENT<br>SAMPLE ID | TPH-GASOLINE<br>[mg/L] | SURROGATE<br>RECOVERY | FLAGS | DATE<br>ANALYZED |
|---------------------|------------------------|-----------------------|-------|------------------|
| Blank               | nd                     | 109%                  |       | 6/7/2018         |
| 2003.MW6.GW         | nd                     | 126%                  |       | 6/7/2018         |
| 2003.MW8.GW         | nd                     | 121%                  |       | 6/7/2018         |
| PQL                 | 0.10                   | Acceptable Range      |       |                  |
| MDL                 | 0.10                   | 70%-130%              |       |                  |

#### QA/QC DATA

| TPH-GASOLINE            |        |                  |
|-------------------------|--------|------------------|
| QC BATCH # 060718       | [mg/L] | Acceptable Range |
| Lab Control Spike (LCS) | 10.6   | 7.0-13.0         |
| Matrix Spike (MS)       | 11.7   | 7.0-13.0         |
| Matrix Spike Dup (MSD)  | 10.8   | 7.0-13.0         |
| Recovery LCS            | 106%   | 70%-130%         |
| Recovery MS             | 117%   | 70%-130%         |
| Recovery MSD            | 108%   | 70%-130%         |
| RPD of MS/MSD           | 8.6%   | 20%              |

Analyst: E. Young

Data review: U. Baumgartner, Ph.D.





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## Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/8/2018           |
| <b>Project Name</b>    | <b>KAHULUI HARBOR PARCEL B</b>        | <b>Date Reported</b> | 6/13/2018          |
| <b>Client Project#</b> | <b>14-2003</b>                        |                      |                    |
| <b>Project#</b>        | <b>T346</b>                           |                      |                    |

## Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

| Client sample ID         |     |      |           | 2003.MW6. GW | 2003.MW8. GW  |               |
|--------------------------|-----|------|-----------|--------------|---------------|---------------|
| Lab ID                   | MRL | Unit | MTH BLK   | LCS          | 18-AL0608-3-1 | 18-AL0608-3-2 |
| Matrix                   |     |      | Water     | Water        | Water         | Water         |
| Date Analyzed            |     |      | 6/11/2018 | 6/11/2018    | 6/11/2018     | 6/11/2018     |
|                          |     |      |           |              |               |               |
| Chloromethane            | 1.0 | ug/L | nd        |              | nd            | nd            |
| Vinyl chloride           | 0.2 | ug/L | nd        | 112%         | nd            | nd            |
| Bromomethane             | 1.0 | ug/L | nd        |              | nd            | nd            |
| Chloroethane             | 1.0 | ug/L | nd        |              | nd            | nd            |
| Trichlorofluoromethane   | 1.0 | ug/L | nd        |              | nd            | nd            |
| 1,1-Dichloroethene       | 1.0 | ug/L | nd        |              | nd            | nd            |
| Methylene Chloride       | 5.0 | ug/L | nd        |              | nd            | nd            |
| Methyl t-butyl ether     | 0.5 | ug/L | nd        |              | nd            | nd            |
| trans-1,2-Dichloroethene | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,1-Dichloroethane       | 0.5 | ug/L | nd        | 118%         | nd            | nd            |
| 2,2-Dichloropropane      | 0.5 | ug/L | nd        |              | nd            | nd            |
| cis-1,2-Dichloroethene   | 0.5 | ug/L | nd        |              | nd            | nd            |
| Chloroform               | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,1,1-Trichloroethane    | 0.5 | ug/L | nd        |              | nd            | nd            |
| Carbon tetrachloride     | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,1-Dichloropropene      | 0.5 | ug/L | nd        |              | nd            | nd            |
| Benzene                  | 0.5 | ug/L | nd        | 102%         | nd            | nd            |
| 1,2-Dichloroethane (EDC) | 0.5 | ug/L | nd        |              | nd            | nd            |
| Trichloroethene          | 0.5 | ug/L | nd        | 111%         | nd            | nd            |
| 1,2-Dichloropropane      | 0.5 | ug/L | nd        |              | nd            | nd            |
| Dibromomethane           | 0.5 | ug/L | nd        |              | nd            | nd            |
| Bromodichloromethane     | 0.5 | ug/L | nd        |              | nd            | nd            |
| Toluene                  | 0.5 | ug/L | nd        | 80%          | nd            | nd            |
| 1,1,2-Trichloroethane    | 0.5 | ug/L | nd        |              | nd            | nd            |
| Tetrachloroethene        | 0.5 | ug/L | nd        | 84%          | nd            | nd            |
| 1,3-Dichloropropane      | 0.5 | ug/L | nd        |              | nd            | nd            |
| Dibromochloromethane     | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,2-Dibromoethane (EDB)  | 0.5 | ug/L | nd        |              | nd            | nd            |

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website: www.accu-lab.com

## Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/8/2018           |
| <b>Project Name</b>    | <b>KAHULUI HARBOR PARCEL B</b>        | <b>Date Reported</b> | 6/13/2018          |
| <b>Client Project#</b> | <b>14-2003</b>                        |                      |                    |
| <b>Project#</b>        | <b>T346</b>                           |                      |                    |

## Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

| Client sample ID            |     |      |           | 2003.MW6. GW |               | 2003.MW8. GW  |
|-----------------------------|-----|------|-----------|--------------|---------------|---------------|
| Lab ID                      | MRL | Unit | MTH BLK   | LCS          | 18-AL0608-3-1 | 18-AL0608-3-2 |
| Matrix                      |     |      | Water     | Water        | Water         | Water         |
| Date Analyzed               |     |      | 6/11/2018 | 6/11/2018    | 6/11/2018     | 6/11/2018     |
| Chlorobenzene               | 0.5 | ug/L | nd        | 88%          | nd            | nd            |
| 1,1,1,2-Tetrachloroethane   | 0.5 | ug/L | nd        |              | nd            | nd            |
| Ethyl benzene               | 0.5 | ug/L | nd        |              | nd            | nd            |
| m,p-Xylenes                 | 0.4 | ug/L | nd        |              | nd            | nd            |
| Styrene                     | 0.5 | ug/L | nd        |              | nd            | nd            |
| o-Xylene                    | 0.5 | ug/L | nd        |              | nd            | nd            |
| Bromoform                   | 1.0 | ug/L | nd        |              | nd            | nd            |
| Isopropyl benzene           | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,2,3-Trichloropropane      | 0.5 | ug/L | nd        |              | nd            | nd            |
| Bromobenzene                | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,1,2,2-Tetrachloroethane   | 0.5 | ug/L | nd        |              | nd            | nd            |
| n-Propylbenzene             | 0.5 | ug/L | nd        |              | nd            | nd            |
| 2-Chlorotoluene             | 0.5 | ug/L | nd        |              | nd            | nd            |
| 4-Chlorotoluene             | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,3,5-Trimethylbenzene      | 0.5 | ug/L | nd        |              | nd            | nd            |
| tert-Butylbenzene           | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,2,4-Trimethylbenzene      | 0.5 | ug/L | nd        |              | nd            | nd            |
| sec-Butylbenzene            | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,3-Dichlorobenzene         | 0.5 | ug/L | nd        |              | nd            | nd            |
| p-Isopropyltoluene          | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,4-Dichlorobenzene         | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,2-Dichlorobenzene         | 0.5 | ug/L | nd        |              | nd            | nd            |
| n-Butylbenzene              | 0.5 | ug/L | nd        |              | nd            | nd            |
| 1,2-Dibromo-3-Chloropropane | 2.0 | ug/L | nd        |              | nd            | nd            |
| Hexachlorobutadiene         | 2.0 | ug/L | nd        |              | nd            | nd            |
| 1,2,4-Trichlorobenzene      | 2.0 | ug/L | nd        |              | nd            | nd            |
| Naphthalene                 | 2.0 | ug/L | nd        |              | nd            | nd            |
| 1,2,3-Trichlorobenzene      | 2.0 | ug/L | nd        |              | nd            | nd            |

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### Analytical Report

|                 |                                                                                |                         |
|-----------------|--------------------------------------------------------------------------------|-------------------------|
| Client          | Advanced Analytical Laboratory<br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | Acculab WO# 18-AL0608-3 |
| Project Manager | Uwe Baumgartner/ Elisa Young                                                   | Date Sampled 6/6/2018   |
| Project Name    | KAHULUI HARBOR PARCEL B                                                        | Date Received 6/8/2018  |
| Client Project# | 14-2003                                                                        | Date Reported 6/13/2018 |
| Project#        | T346                                                                           |                         |

### Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

| Client sample ID |     |      |           |           | 2003.MW6. GW  | 2003.MW8. GW  |
|------------------|-----|------|-----------|-----------|---------------|---------------|
| Lab ID           | MRL | Unit | MTH BLK   | LCS       | 18-AL0608-3-1 | 18-AL0608-3-2 |
| Matrix           |     |      | Water     | Water     | Water         | Water         |
| Date Analyzed    |     |      | 6/11/2018 | 6/11/2018 | 6/11/2018     | 6/11/2018     |

### Surrogate Recoveries

|                       |     |      |      |      |
|-----------------------|-----|------|------|------|
| Dibromofluoromethane  | 99% | 100% | 102% | 100% |
| 1,2-Dichloroethane-d4 | 76% | 79%  | 81%  | 81%  |
| Toluene-d8            | 91% | 87%  | 89%  | 89%  |
| 4-Bromofluorobenzene  | 93% | 90%  | 94%  | 91%  |

### Acceptable Recovery Limits:

Surrogates/LCS 70-130%

MS/MSD 60-150%

Acceptable RPD limit: 30%





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### Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/8/2018           |
| <b>Project Name</b>    | <b>KAHULUI HARBOR PARCEL B</b>        | <b>Date Reported</b> | 6/13/2018          |
| <b>Client Project#</b> | <b>14-2003</b>                        |                      |                    |
| <b>Project#</b>        | <b>T346</b>                           |                      |                    |

### Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

|                         |            |             | <b>MS</b>     | <b>MS</b>     | <b>RPD</b>    |
|-------------------------|------------|-------------|---------------|---------------|---------------|
| <b>Client sample ID</b> |            |             | <b>DU-1</b>   | <b>DU-1</b>   | <b>DU-1</b>   |
| <b>Lab ID</b>           | <b>MRL</b> | <b>Unit</b> | 18-AL0608-1-1 | 18-AL0608-1-1 | 18-AL0608-1-1 |
| <b>Matrix</b>           |            |             | Liquid        | Liquid        | Liquid        |
| <b>Date Analyzed</b>    |            |             | 6/11/2018     | 6/11/2018     | 6/11/2018     |

|                          |     |      |      |      |      |
|--------------------------|-----|------|------|------|------|
| Chloromethane            | 1.0 | ug/L |      |      |      |
| Vinyl chloride           | 0.2 | ug/L | 103% | 108% | 5%   |
| Bromomethane             | 1.0 | ug/L |      |      |      |
| Chloroethane             | 1.0 | ug/L |      |      |      |
| Trichlorofluoromethane   | 1.0 | ug/L |      |      |      |
| 1,1-Dichloroethene       | 1.0 | ug/L |      |      |      |
| Methylene Chloride       | 5.0 | ug/L |      |      |      |
| Methyl t-butyl ether     | 0.5 | ug/L |      |      |      |
| trans-1,2-Dichloroethene | 0.5 | ug/L |      |      |      |
| 1,1-Dichloroethane       | 0.5 | ug/L | 122% | 119% | 2%   |
| 2,2-Dichloropropane      | 0.5 | ug/L |      |      |      |
| cis-1,2-Dichloroethene   | 0.5 | ug/L |      |      |      |
| Chloroform               | 0.5 | ug/L |      |      |      |
| 1,1,1-Trichloroethane    | 0.5 | ug/L |      |      |      |
| Carbon tetrachloride     | 0.5 | ug/L |      |      |      |
| 1,1-Dichloropropene      | 0.5 | ug/L |      |      |      |
| Benzene                  | 0.5 | ug/L | 103% | 101% | 2%   |
| 1,2-Dichloroethane (EDC) | 0.5 | ug/L |      |      |      |
| Trichloroethene          | 0.5 | ug/L | 115% | 114% | 1%   |
| 1,2-Dichloropropane      | 0.5 | ug/L |      |      |      |
| Dibromomethane           | 0.5 | ug/L |      |      |      |
| Bromodichloromethane     | 0.5 | ug/L |      |      |      |
| Toluene                  | 0.5 | ug/L | 87%  | 86%  | 0.4% |
| 1,1,2-Trichloroethane    | 0.5 | ug/L |      |      |      |
| Tetrachloroethene        | 0.5 | ug/L | 89%  | 87%  | 3%   |
| 1,3-Dichloropropane      | 0.5 | ug/L |      |      |      |
| Dibromochloromethane     | 0.5 | ug/L |      |      |      |
| 1,2-Dibromoethane (EDB)  | 0.5 | ug/L |      |      |      |

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### Analytical Report

|                 |                                |               |             |
|-----------------|--------------------------------|---------------|-------------|
| Client          | Advanced Analytical Laboratory | Acculab WO#   | 18-AL0608-3 |
|                 | 544 Ohohia Street #10          |               |             |
|                 | Honolulu, HI, 96819            | Date Sampled  | 6/6/2018    |
| Project Manager | Uwe Baumgartner/ Elisa Young   | Date Received | 6/8/2018    |
| Project Name    | KAHULUI HARBOR PARCEL B        | Date Reported | 6/13/2018   |
| Client Project# | 14-2003                        |               |             |
| Project#        | T346                           |               |             |

### Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

| Client sample ID | MRL | Unit | MS            | MS            | RPD           |
|------------------|-----|------|---------------|---------------|---------------|
|                  |     |      | DU-1          | DU-1          | DU-1          |
| Lab ID           |     |      | 18-AL0608-1-1 | 18-AL0608-1-1 | 18-AL0608-1-1 |
| Matrix           |     |      | Liquid        | Liquid        | Liquid        |
| Date Analyzed    |     |      | 6/11/2018     | 6/11/2018     | 6/11/2018     |

|                             |     |      |     |     |    |
|-----------------------------|-----|------|-----|-----|----|
| Chlorobenzene               | 0.5 | ug/L | 91% | 95% | 4% |
| 1,1,1,2-Tetrachloroethane   | 0.5 | ug/L |     |     |    |
| Ethyl benzene               | 0.5 | ug/L |     |     |    |
| m,p-Xylenes                 | 0.4 | ug/L |     |     |    |
| Styrene                     | 0.5 | ug/L |     |     |    |
| o-Xylene                    | 0.5 | ug/L |     |     |    |
| Bromoform                   | 1.0 | ug/L |     |     |    |
| Isopropyl benzene           | 0.5 | ug/L |     |     |    |
| 1,2,3-Trichloropropane      | 0.5 | ug/L |     |     |    |
| Bromobenzene                | 0.5 | ug/L |     |     |    |
| 1,1,2,2-Tetrachloroethane   | 0.5 | ug/L |     |     |    |
| n-Propylbenzene             | 0.5 | ug/L |     |     |    |
| 2-Chlorotoluene             | 0.5 | ug/L |     |     |    |
| 4-Chlorotoluene             | 0.5 | ug/L |     |     |    |
| 1,3,5-Trimethylbenzene      | 0.5 | ug/L |     |     |    |
| tert-Butylbenzene           | 0.5 | ug/L |     |     |    |
| 1,2,4-Trimethylbenzene      | 0.5 | ug/L |     |     |    |
| sec-Butylbenzene            | 0.5 | ug/L |     |     |    |
| 1,3-Dichlorobenzene         | 0.5 | ug/L |     |     |    |
| p-Isopropyltoluene          | 0.5 | ug/L |     |     |    |
| 1,4-Dichlorobenzene         | 0.5 | ug/L |     |     |    |
| 1,2-Dichlorobenzene         | 0.5 | ug/L |     |     |    |
| n-Butylbenzene              | 0.5 | ug/L |     |     |    |
| 1,2-Dibromo-3-Chloropropane | 2.0 | ug/L |     |     |    |
| Hexachlorobutadiene         | 2.0 | ug/L |     |     |    |
| 1,2,4-Trichlorobenzene      | 2.0 | ug/L |     |     |    |
| Naphthalene                 | 2.0 | ug/L |     |     |    |
| 1,2,3-Trichlorobenzene      | 2.0 | ug/L |     |     |    |

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### Analytical Report

|                 |                                                                                |               |             |
|-----------------|--------------------------------------------------------------------------------|---------------|-------------|
| Client          | Advanced Analytical Laboratory<br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | Acculab WO#   | 18-AL0608-3 |
| Project Manager | Uwe Baumgartner/ Elisa Young                                                   | Date Sampled  | 6/6/2018    |
| Project Name    | KAHULUI HARBOR PARCEL B                                                        | Date Received | 6/8/2018    |
| Client Project# | 14-2003                                                                        | Date Reported | 6/13/2018   |
| Project#        | T346                                                                           |               |             |

### Volatiles in Water by EPA 8260C/5030B

Accu Lab Analytical Batch# AL061118-1

| Client sample ID |     |      | MS            | MS            | RPD           |
|------------------|-----|------|---------------|---------------|---------------|
|                  |     |      | DU-1          | DU-1          | DU-1          |
| Lab ID           | MRL | Unit | 18-AL0608-1-1 | 18-AL0608-1-1 | 18-AL0608-1-1 |
| Matrix           |     |      | Liquid        | Liquid        | Liquid        |
| Date Analyzed    |     |      | 6/11/2018     | 6/11/2018     | 6/11/2018     |

### Surrogate Recoveries

|                       |      |      |
|-----------------------|------|------|
| Dibromofluoromethane  | 103% | 100% |
| 1,2-Dichloroethane-d4 | 86%  | 81%  |
| Toluene-d8            | 88%  | 88%  |
| 4-Bromofluorobenzene  | 95%  | 93%  |

#### Acceptable Recovery Limits:

Surrogates/LCS 70-130%

MS/MSD 60-150%

Acceptable RPD limit: 30%



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## Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/8/2018           |
| <b>Project Name</b>    | KAHULUI HARBOR PARCEL B               | <b>Date Reported</b> | 6/13/2018          |
| <b>Client Project#</b> | 14-2003                               |                      |                    |
| <b>Project#</b>        | T346                                  |                      |                    |

## PAHs in Water By 8270D/3010C GC/MS-SIM

Accu Lab Analytical Batch# AL060818-7

| Client sample ID       |       |      |           | 2003.MW6. GW  | 2003.MW8. GW  |
|------------------------|-------|------|-----------|---------------|---------------|
| Lab ID                 | MRL   | Unit | MTH BLK   | 18-AL0608-3-1 | 18-AL0608-3-2 |
| Matrix                 |       |      | Water     | Water         | Water         |
| Date Extracted         |       |      | 6/8/2018  | 6/8/2018      | 6/8/2018      |
| Date Analyzed          |       |      | 6/11/2018 | 6/11/2018     | 6/11/2018     |
| Naphthalene            | 0.20  | ug/L | nd        | nd            | nd            |
| 2-Methylnaphthalene    | 0.20  | ug/L | nd        | nd            | nd            |
| 1-Methylnaphthalene    | 0.20  | ug/L | nd        | nd            | nd            |
| Acenaphthylene         | 0.05  | ug/L | nd        | nd            | nd            |
| Acenaphthene           | 0.10  | ug/L | nd        | nd            | nd            |
| Fluorene               | 0.05  | ug/L | nd        | nd            | nd            |
| Phenanthrene           | 0.05  | ug/L | nd        | nd            | nd            |
| Anthracene             | 0.05  | ug/L | nd        | nd            | nd            |
| Fluoranthene           | 0.05  | ug/L | nd        | nd            | nd            |
| Pyrene                 | 0.05  | ug/L | nd        | nd            | nd            |
| Benzo(a)anthracene     | 0.025 | ug/L | nd        | nd            | nd            |
| Chrysene               | 0.10  | ug/L | nd        | nd            | nd            |
| Benzo(b)fluoranthene   | 0.10  | ug/L | nd        | nd            | nd            |
| Benzo(k)fluoranthene   | 0.10  | ug/L | nd        | nd            | nd            |
| Benzo(a)pyrene         | 0.025 | ug/L | nd        | nd            | nd            |
| Indeno(1,2,3-cd)pyrene | 0.095 | ug/L | nd        | nd            | nd            |
| Dibenzo(a,h)anthracene | 0.10  | ug/L | nd        | nd            | nd            |
| Benzo(ghi)perylene     | 0.10  | ug/L | nd        | nd            | nd            |

### Surrogate Recoveries

|                  |     |     |     |
|------------------|-----|-----|-----|
| 2-Fluorobiphenyl | 89% | 89% | 86% |
| Terphenyl-d14    | 71% | 68% | 68% |

### Acceptable Recovery Limits:

|                       |         |
|-----------------------|---------|
| Surrogates/LCS        | 45-150% |
| MS/MSD                | 45-150% |
| Acceptable RPD Limit: | 30%     |





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## Analytical Report

|                        |                                       |                      |                    |
|------------------------|---------------------------------------|----------------------|--------------------|
| <b>Client</b>          | <b>Advanced Analytical Laboratory</b> | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
|                        | 544 Ohohia Street #10                 |                      |                    |
|                        | Honolulu, HI, 96819                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young          | <b>Date Received</b> | 6/8/2018           |
| <b>Project Name</b>    | KAHULUI HARBOR PARCEL B               | <b>Date Reported</b> | 6/13/2018          |
| <b>Client Project#</b> | 14-2003                               |                      |                    |
| <b>Project#</b>        | T346                                  |                      |                    |

## PAHs in Water By 8270D/3010C GC/MS-SIM

Accu Lab Analytical Batch# AL060818-7

| Client sample ID |     | DUP       | RPD       |
|------------------|-----|-----------|-----------|
| Lab ID           | MRL | LCS/MS    | LCS/MS    |
| Matrix           |     | Water     | Water     |
| Date Extracted   |     | 6/8/2018  | 6/8/2018  |
| Date Analyzed    |     | 6/11/2018 | 6/11/2018 |

|                        |       |      |      |     |
|------------------------|-------|------|------|-----|
| Naphthalene            | 0.20  | 98%  | 101% | 3%  |
| 2-Methylnaphthalene    | 0.20  | 97%  | 88%  | 10% |
| 1-Methylnaphthalene    | 0.20  | 91%  | 93%  | 3%  |
| Acenaphthylene         | 0.05  | 73%  | 83%  | 13% |
| Acenaphthene           | 0.10  | 73%  | 91%  | 22% |
| Fluorene               | 0.05  | 67%  | 85%  | 24% |
| Phenanthrene           | 0.05  | 92%  | 92%  | 0%  |
| Anthracene             | 0.05  | 89%  | 87%  | 2%  |
| Fluoranthene           | 0.05  | 89%  | 88%  | 2%  |
| Pyrene                 | 0.05  | 83%  | 82%  | 1%  |
| Benzo(a)anthracene     | 0.025 | 94%  | 92%  | 2%  |
| Chrysene               | 0.10  | 94%  | 96%  | 2%  |
| Benzo(b)fluoranthene   | 0.10  | 65%  | 75%  | 15% |
| Benzo(k)fluoranthene   | 0.10  | 63%  | 74%  | 17% |
| Benzo(a)pyrene         | 0.025 | 72%  | 71%  | 1%  |
| Indeno(1,2,3-cd)pyrene | 0.095 | 145% | 140% | 4%  |
| Dibenzo(a,h)anthracene | 0.10  | 113% | 111% | 2%  |
| Benzo(ghi)perylene     | 0.10  | 101% | 101% | 0%  |

### Surrogate Recoveries

|                  |      |     |
|------------------|------|-----|
| 2-Fluorobiphenyl | 118% | 85% |
| Terphenyl-d14    | 91%  | 90% |

### Acceptable Recovery Limits:

|                       |         |
|-----------------------|---------|
| Surrogates/LCS        | 45-150% |
| MS/MSD                | 45-150% |
| Acceptable RPD Limit: | 30%     |





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## Analytical Report

|                 |                                                                                |               |             |
|-----------------|--------------------------------------------------------------------------------|---------------|-------------|
| Client          | Advanced Analytical Laboratory<br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | Acculab WO#   | 18-AL0608-3 |
| Project Manager | Uwe Baumgartner/ Elisa Young                                                   | Date Sampled  | 6/6/2018    |
| Project Name    | KAHULUI HARBOR PARCEL B                                                        | Date Received | 6/8/2018    |
| Client Project# | 14-2003                                                                        | Date Reported | 6/13/2018   |
| Project#        | T346                                                                           |               |             |

## Metals in Water by EPA 6020B/EPA3005A

Accu Lab Analytical Batch# AL061118-2

| Client sample ID |     |      |             |             | 2003.MW6.<br>GW | 2003.MW8.<br>GW | MS<br>302711-01-<br>water-03 | MSD<br>302711-01-<br>water-03 | RPD<br>302711-01-<br>water-03 |
|------------------|-----|------|-------------|-------------|-----------------|-----------------|------------------------------|-------------------------------|-------------------------------|
| Lab ID           | MRL | Unit | MTH BLK     | LCS         | 18-AL0608-3-1   | 18-AL0608-3-2   | 18-AL0608-2-2                | 18-AL0608-2-2                 | 18-AL0608-2-2                 |
| Matrix           |     |      | Diss. Water | Diss. Water | Diss. Water     | Diss. Water     | Total Water                  | Total Water                   | Total Water                   |
| Date Prepared    |     |      | 6/11/2018   | 6/11/2018   | 6/11/2018       | 6/11/2018       | 6/11/2018                    | 6/11/2018                     | 6/11/2018                     |
| Date Analyzed    |     |      | 6/11/2018   | 6/11/2018   | 6/11/2018       | 6/11/2018       | 6/11/2018                    | 6/11/2018                     | 6/11/2018                     |
| Arsenic (As)     | 2.0 | ug/L | nd          | 99%         | 5.1             | 5.6             | 113%                         | 115%                          | 2%                            |
| Barium (Ba)      | 2.0 | ug/L | nd          | 99%         | 13              | 14              | M                            | M                             |                               |
| Cadmium (Cd)     | 1.0 | ug/L | nd          | 101%        | nd              | nd              | 102%                         | 102%                          | 0%                            |
| Chromium (Cr)    | 2.0 | ug/L | nd          | 105%        | 3.2             | 3.5             | 112%                         | 116%                          | 3%                            |
| Lead (Pb)        | 1.0 | ug/L | nd          | 104%        | nd              | nd              | 102%                         | 104%                          | 2%                            |
| Selenium (Se)    | 2.0 | ug/L | nd          | 102%        | 3.6             | 7.9             | 93%                          | 101%                          | 7%                            |
| Silver (Ag)      | 1.0 | ug/L | nd          | 103%        | nd              | nd              | 92%                          | 106%                          | 15%                           |
| Mercury (Hg)     | 0.2 | ug/L | nd          | 118%        | nd              | nd              | 75%                          | 87%                           | 14%                           |

Acceptable Recovery Limits:

LCS 80-120%

MS/MSD 75-125%

Acceptable RPD limit: 20%



12524 130th Lane NE  
Kirkland WA 98034

Tel: (425) 214-5858  
(425) 214-5868  
Email: lisa@accu-lab.com  
website: www.accu-lab.com

### *Analytical Report*

|                        |                                                                                |                      |                    |
|------------------------|--------------------------------------------------------------------------------|----------------------|--------------------|
| <b>Client</b>          | Advanced Analytical Laboratory<br>544 Ohohia Street #10<br>Honolulu, HI, 96819 | <b>Acculab WO#</b>   | <b>18-AL0608-3</b> |
| <b>Project Manager</b> | Uwe Baumgartner/ Elisa Young                                                   | <b>Date Sampled</b>  | 6/6/2018           |
| <b>Project Name</b>    | <b>KAHULUI HARBOR PARCEL B</b>                                                 | <b>Date Received</b> | 6/8/2018           |
| <b>Client Project#</b> | <b>14-2003</b>                                                                 | <b>Date Reported</b> | 6/13/2018          |
| <b>Project#</b>        | <b>T346</b>                                                                    |                      |                    |

#### Data Qualifiers and Comments:

- MRL-** Method Reporting Limit
- nd-** Indicates the analyte is not detected at the listing reporting limit.
- C-** Coelution with other compounds.
- M-** % Recovery of surrogate, MS/MSD is out of the acceptable limit due to matrix effect.
- B-** Indicates the analyte is detected in the method blank associated with the sample.
- J-** The analyte is detected at below the reporting limit.
- E-** The result reported exceeds the calibration range, and is an estimate.
- D-** Sample required dilution due to matrix. Method Reporting Limits were elevated due to dilutions.
- H-** Sample was received or analyzed past holding time
- Q-** Sample was received with head space, improper preserved or above recommended temperature.
- I-** Due to insufficient sample, LCS/LCS DUP were analyzed in place of MS/MSD.
- R-** The recovery of this analyte in QC sample failed high, but the analyte was not detected in all related samples. No action was taken.
- R-1-** The RPD value for the MS/MSD was outside of QC acceptance limits however both recoveries were acceptable. All related samples were "nd". No action was taken.



Address: 3210 Koapaka Street#A Honolulu, HI 96819

PROJECT MANAGER: S. NAKASHIMA

LABORATORY NOTES:

DRAFT

**APPENDIX 8**  
**DISPOSAL DOCUMENTATION**



|                                                                                                                                                                                                                                                                                                                                                             |                                              |                                                    |                                                                                                                                                 |                           |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|
| <b>NON-HAZARDOUS WASTE MANIFEST</b><br>(HC&S form Rev. 11/95)                                                                                                                                                                                                                                                                                               |                                              | 1. Manifest Document Number<br><b>NH-07082015C</b> |                                                                                                                                                 | 2. Page 1 of 1            |           |
| 3. Generator's Name and Mailing Address:<br><b>Kahului Trucking and Storage, Inc.<br/>140 Hobron Avenue<br/>Kahului, HI 96732</b>                                                                                                                                                                                                                           |                                              |                                                    | 5. Designated Facility Name and Address<br><b>Maalaea Construction and Demolition<br/>Landfill<br/>North Kihei Road<br/>Kihei, Hawaii 96753</b> |                           |           |
| 4. Generator's Phone <b>(808) 877-5001</b>                                                                                                                                                                                                                                                                                                                  |                                              |                                                    | 6. Facility's Phone <b>(808) 242-1101</b>                                                                                                       |                           |           |
| 7. Transporter 1 Company Name and Phone<br><b>Kahului Trucking and Storage, Inc. (808) 877-5001</b>                                                                                                                                                                                                                                                         |                                              |                                                    |                                                                                                                                                 |                           |           |
| 8. Transporter 2 Company Name and Phone<br><b>N/A</b>                                                                                                                                                                                                                                                                                                       |                                              |                                                    |                                                                                                                                                 |                           |           |
| 9. Transporter 3 Company Name and Phone<br><b>N/A</b>                                                                                                                                                                                                                                                                                                       |                                              |                                                    |                                                                                                                                                 |                           |           |
|                                                                                                                                                                                                                                                                                                                                                             | 10. Waste Description/U.S. DOT Shipping Name | 11. Containers<br>No.                              | 12. Total<br>Quantity                                                                                                                           | 13. Unit<br>Wt/Vol.       |           |
| a.                                                                                                                                                                                                                                                                                                                                                          | <b>Petroleum-contaminated soil</b>           | <b>1</b>                                           | <b>TT</b>                                                                                                                                       | <b>71.38</b>              | <b>CY</b> |
| b.                                                                                                                                                                                                                                                                                                                                                          |                                              |                                                    |                                                                                                                                                 |                           |           |
| c.                                                                                                                                                                                                                                                                                                                                                          |                                              |                                                    |                                                                                                                                                 |                           |           |
| 14. Additional Descriptions for Materials Listed Above                                                                                                                                                                                                                                                                                                      |                                              |                                                    |                                                                                                                                                 |                           |           |
| 15. Special Handling Instructions and Additional Information<br><br><b>For burial in compliance with the facility's PCS disposal plan.</b>                                                                                                                                                                                                                  |                                              |                                                    |                                                                                                                                                 |                           |           |
| 16. Generator's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name (where applicable) and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway and/or water according to applicable government regulations. |                                              |                                                    |                                                                                                                                                 |                           |           |
| Printed/Typed Name<br><b>Joy Yokouchi</b>                                                                                                                                                                                                                                                                                                                   |                                              | Signature<br><i>Joy Yokouchi</i>                   |                                                                                                                                                 | Date<br><b>01/07/2016</b> |           |
| 17. Discrepancy Indication Space:<br>Certificate # <b>159885-7381 tons - KTS 89</b><br>Certificate # <b>159885-7391 tons - KTS 89</b><br>Certificate # <b>159885-7396 tons - KTS 89</b>                                                                                                                                                                     |                                              |                                                    |                                                                                                                                                 |                           |           |
| 18. Facility Owner or Operator Certification of receipt of materials covered by this manifest except as noted in Item 17                                                                                                                                                                                                                                    |                                              |                                                    |                                                                                                                                                 |                           |           |
| Printed/Typed Name<br><b>Dixie L. DeLoite</b>                                                                                                                                                                                                                                                                                                               |                                              | Signature<br><i>Dixie L. DeLoite</i>               |                                                                                                                                                 | Date<br><b>1-7-16</b>     |           |

FACILITY OWNER OR OPERATOR: PLEASE SEND COPY OF SIGNED MANIFEST TO GENERATOR WITHIN 30 DAYS



ALEXANDER & BALDWIN, INC.

May 26, 2015

Mr. Glenn Wilbourn  
Kahului Trucking and Storage, Inc.  
Via email: gwilbourn@ktsmaui.com

**Subject: Disposal of Petroleum Contaminated Soil from Kahului Trucking and Storage, Inc. Facility, 140 Hobron Avenue Kahului (approximately 30 cubic yards)**

Dear Mr. Wilbourn:

On behalf of A&B Properties, Inc. (A&B Properties), a division of Alexander & Baldwin, LLC (A&B), this letter responds to your request to dispose of approximately 30 cubic yards of petroleum-contaminated soil (PCS) generated from cleanup of various petroleum spills at the Kahului Trucking and Storage, Inc. facility in Kahului. Based on the laboratory results provided, A&B does not object to acceptance of this waste by the Maui Demolition and Construction Landfill, provided that the waste generator agrees to and complies with all of the following conditions:

- (1) The PCS has also been reviewed and approved for disposal by the landfill operator's environmental consultant; and
- (2) Your consultant or the landfill operator have obtained any additional approvals from the Department of Health that may be required to allow disposal of PCS containing total petroleum hydrocarbons (TPH) as oil in excess of the limit (500 ppm) specified in the landfill's current solid waste management permit; and
- (3) You have confirmed with the landfill operator that disposal shall comply with applicable conditions of the landfill's solid waste management permit and PCS Plan; and
- (4) The generator of the waste has conducted a hazardous waste determination and determined and certified that the waste is not regulated as a hazardous waste; and
- (5) The generator of the waste has determined and certified that the waste does not contain detectable levels of PCBs or asbestos; and
- (6) The generator acknowledges and agrees that he/she retains strict liability under state and federal environmental response laws for any future release of petroleum or other hazardous substances from this waste into the environment, including groundwater, at the landfill.

This landowner clearance does not constitute final approval to dispose of PCS in the landfill. The generator is responsible for obtaining all required approvals for such disposal, and for ensuring that such disposal complies with applicable state and federal laws and regulations. Further, this landowner clearance applies only to the approximately 30 cubic yards of PCS actually represented by the analytical data provided with the completed Soil Profile Sheet. Disposal of any additional PCS at the landfill will require additional case-by-case review by A&B in addition to any profiling requirements at the landfill. No PCS is permitted to be accepted by the landfill without prior review and consent by A&B.

Please sign this letter certifying agreement to and compliance with all of the above conditions. A copy of the signed acknowledgement and certification must be returned to me (by email or fax, and by U.S. Mail) and to the landfill's consultant prior to the disposal of the subject PCS in the landfill. Landowner consent is expressly contingent upon receipt of the signed certification.

Kahului Trucking and Storage, Inc.  
Disposal of PCS at Maui Demolition and Construction Landfill  
May 26, 2015; Page 2 of 2

Feel free to contact me at (808) 877-2959 if you have any questions.

Sincerely,

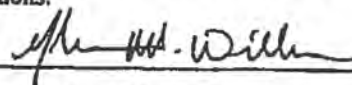


Sean M. O'Keefe  
Director, Environmental Affairs  
Alexander & Baldwin, LLC

cc: G. Chun, J. Hernandez, K. Luke

Generator Acknowledgement and Certification

I hereby acknowledge and certify that I have read, understand, agree to, and have complied with all of the above conditions.

Signature:  Date: 5/26/15

Name: Glenn M. Wilbourn

Title: Executive Vice President, General Manager

Generator Name: Kahului Trucking & Storage, Inc

# MA'ALAEA LANDFILL FACILITY Soil Profile Sheet

## 1. Soil Generator Information

a. Generator Name: Kahului Trucking & Storage  
 b. Generator Address: 140 Hobron Avenue, Kahului, HI 96732 c. Zip Code: 96732  
 d. Address of Soil Generation: 140 Hobron Avenue, Kahului, HI 96732  
 e. Address of Soil Storage (if different from source address) \_\_\_\_\_  
 f. Type of Facility Soil Has Been Generated From: Trucking and Storage Facility  
 g. State DOI Facility ID#: HIR000074492  
 h. Contact: Sean O'Keefe i. Phone: (808) 283-8907

## 2. Soil Information

a. Name of Contaminant(s): Petroleum Contaminated Soil  
 b. Amount of Soil (tons and/or cubic yards) 30 Cubic Yards  
 c. Type of Soil: Petroleum Contaminated Soil  
 d. Soil Moisture: Wet: \_\_\_\_\_ Damp: \_\_\_\_\_ Dry: X  
 e. Soil Color (Munsell Color Chart Code if available) Various  
 f. Strong incidental odor? No X Yes \_\_\_\_\_ Describe: \_\_\_\_\_  
 g. pH 5-9  
 h. Is the soil ignitable? Yes \_\_\_\_\_ No X

i. Describe the circumstances by which the soil has been generated.

Cleanup of spills/leaks from equipment at the Kahului Trucking & Storage maintenance shop yard. Spills/leaks may include used automotive oils, diesel fuel, and/or gasoline from leaking vehicles.

## 3. Transportation Information

a. Method of Shipment: Bulk Solid X Drum/Box \_\_\_\_\_ Other \_\_\_\_\_  
 b. Transportation Company: Kahului Trucking & Storage  
 c. Is this a U. S. Department of Transportation (USDOT) Hazardous Material? Yes \_\_\_\_\_ No X

## 4. Chemical Contaminants (Attach supplementary sheets if necessary)

|                            | Range (Min-Max) |      |
|----------------------------|-----------------|------|
| a. Lube Oil Range Organics | 0 - 1000        | ppm. |
| b. Phenanthrene            | 0 - 0.10        | ppm. |
| c. Fluoranthene            | 0 - 0.21        | ppm. |
| d. Pyrene                  | 0 - 0.21        | ppm. |
| e. Total Lead              | 0 - 74          | ppm. |
| f. See laboratory reports  |                 | ppm. |
| g. _____                   |                 | ppm. |
| h. _____                   |                 | ppm. |
| i. _____                   |                 | ppm. |

Attach copies of analytical reports and chain of custody documentation.

Attach a description of the soil sampling procedures.

Attach a site plan showing where the soil originated, and where samples were collected.



Continued

j. Does the soil contain any of the following (provide concentration if known)

|          |                             |           |
|----------|-----------------------------|-----------|
| PCBs     | Yes _____ No <u>X</u> _____ | _____ ppm |
| Cyanides | Yes _____ No _____          | _____ ppm |
| Sulfides | Yes _____ No _____          | _____ ppm |
| Asbestos | Yes _____ No _____          | _____ %   |

k. Indicate method used to determine the presence or absence of items listed in section j.

Laboratory results were used to determine presence of PCBs. Waste was generated from spills/leaks from vehicles and no cyanides, sulfides, and asbestos were present in the generation.

l. Sampling Source(e.g., Drum, Pit, Pile, Insitu, etc.) Four (4) representative samples were collected from the stock pile and two (2) 55-gallon drums.

- m. Does the waste represented by this profile contain any of the carcinogens that require OSHA notification? Yes \_\_\_\_\_ No X
- n. Does the waste represented by this profile contain dioxins? Yes \_\_\_\_\_ No X (List in Section 4)
- o. Does the waste represented by this profile contain asbestos? Yes \_\_\_\_\_ No X If yes, friable \_\_\_\_\_ non-friable \_\_\_\_\_
- p. Does the waste represented by this profile contain benzene? Yes \_\_\_\_\_ No X
- q. Is the waste subject to RCRA Subpart CC Controls? Yes \_\_\_\_\_ No X
- r. Does the waste contain any Class I or Class II ozone-depleting substances? (Freons) Yes \_\_\_\_\_ No X
- s. Does the waste contain debris? Yes \_\_\_\_\_ No X (List in Section 4)
- t. Personal Protective Equipment Requirements: Level D Protection
- u. Is this a state hazardous waste? Yes \_\_\_\_\_ No X (List, if yes)
- v. Is the Waste from a CERCLA or state mandated clean-up? Yes \_\_\_\_\_ No X (if yes, provide relevant documentation.)
- w. Does the waste represented by this waste profile contain concentrations of PCBs regulated by 40 CFR? Yes \_\_\_\_\_ No X
- x. Does the waste represented by waste profile contain radioactive material or disposal regulated by the NRC? Yes \_\_\_\_\_ No X
- y. Does the waste profile and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the contractor? Yes X No \_\_\_\_\_

5. Generator's or Representative's Certification

a. Print Sampler's Name: Kylie Luke

b. Sample Date: 05/04/2015

c. Sampler's Title: Waste Management Supervisor

d. Sampler's Employer (if other than Generator): EnviroServices & Training Center, LLC

The sampler's signature certifies that any sample submitted is representative of the soil described above pursuant to the DOH Technical Guidance Manual for Underground Storage Tank Closure and Release Response (August 1992) and EPA SW-846.

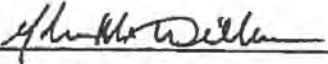
e. Sampler's Signature: Kylie Luke

Continued

**6. Generator Certification**

By signing this soil profile sheet, the Generator certifies:

- a. This soil is not a "Hazardous Waste" as defined by EPA or the State of Hawaii.
- b. This waste does not contain regulated radioactive materials or regulated concentrations of PCBs (Polychlorinated Biphenyls).
- c. The statements and attachments contain true and accurate descriptions of the soil. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
- d. The analytical data presented herein or attached hereto were derived from testing representative samples taken in accordance with the DOH Technical Guidance Manual for Underground Storage Tank Closure and Release Response (August 1992 and subsequent amendments/revisions) and EPA SW-846.
- e. If any changes occur in the character of the soil, the Generator shall notify a Ma'alaea Landfill representative immediately.

f. Signature 

g. Company Kahului Trucking & Storage

h. Name and Title Glenn M. Wilbourn Executive Vice President  
& General Manager

i. Date 5/26/15

**7. Ma'alaea Landfill Waste Disposal Decision (For Ma'alaea Landfill Use Only)**

- a. Waste Disposal Decision ☐ Accepted ☐ Rejected
- b. Disposal Method ☐ Landfill
- c. Precautions, Special Handling Procedures, or Limitations on Approval: \_\_\_\_\_
- d. Clearance No. \_\_\_\_\_ Date: \_\_\_\_\_
- e. Reviewed by \_\_\_\_\_ Date: \_\_\_\_\_
- f. Approved by \_\_\_\_\_ Date: \_\_\_\_\_
- g. Forwarded to DOH: \_\_\_\_\_ Date: \_\_\_\_\_

### Additional Information for Contaminated Soil Reviews

1. Is this a hazardous waste (RCRA C)? ☐ Yes ☒ No
2. Does this waste contain heavy metals? ☒ Yes ☐ No  
If yes, explain & identify Laboratory results indicate total lead at 74ppm. TCLP Lead results were not detected.
3. Does the waste contain PCBs? ☐ Yes ☒ No  
If yes, explain \_\_\_\_\_
4. Is the waste a TSCA waste? ☐ Yes ☒ No  
If yes, explain & identify \_\_\_\_\_
5. Is the waste a CERCLA waste? ☐ Yes ☒ No  
If yes, explain & identify \_\_\_\_\_
6. Regulatory agency & Contact \_\_\_\_\_
7. Generator Kahului Trucking & Storage
8. Type of Contamination Petroleum Contaminated Soil

9. Consultant Name & Number Kylie Luke Phone Number: 808-839-7222 ext. 253
10. Review report attached ☒

If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Sheet and additionally attached sheets from information provided by the generator and additional information as it has determined to be reasonably necessary.

Certification Signature: *Kylie Luke* Title: Waste Management Supervisor  
Name (Type or Print): Kylie Luke Company: EnviroServices Date: 05/19/15

### Submittal Instructions

- The following are the items that should be in any review report, in the order noted.
1. List of regulatory agencies and regulations applicable to the project. Include Names and contact information (phone numbers) for all agencies involved for follow up.
  2. Contact information: generator, type of contamination, and site history in narrative form.
  3. Consultant information (i.e. Names, phone numbers) include the consultant that did the original investigation and subsequent investigations.
  4. Report format for technical information.
    - A. Background information for site and processes.
    - B. Summary of investigative action. Including sampling and testing information pertinent to disposal.
    - C. Summary of remedial actions and how material being disposed was generated.
    - D. Rational for the determination that material is solid waste this should be based on applicable regulations.
    - E. Site location maps and site drawings.
    - F. Summary table of test data.
    - G. Laboratory data.

### Actions Taken

Date \_\_\_\_\_  
Accepted \_\_\_\_\_ Rejected \_\_\_\_\_  
Reason for rejection \_\_\_\_\_

#### Sampling Procedures

On 05/04/2015, Kylie Luke (EnviroServices & Training Center) collected four (4) representative soil samples into 500ml jars (total 4 jars). ETC directed ESN Pacific to composite the 4 samples in the laboratory and analyze the sample for total lead and cadmium, TCLP lead, cadmium, and chromium, PAHs, PCBs, TPH fuel scan, and HVOCs.





## **Environmental Services Network**

May 13, 2015

Kylie Luke  
EnviroServices & Training Center  
505 Ward Ave. Ste 202  
Honolulu, HI 96814

**SUBJECT: DATA REPORT – KT&S**

**ESN Project # D1505050193**

Mr. Luke:

Please find enclosed a data report for the samples analyzed from the above referenced project for EnviroServices & Training Center. The samples were received intact. Applicable detection limits, QA/QC data, and any issues encountered during analysis are included in the report.

The following tests were conducted:

- Analyses for aromatic volatile organics by EPA 8260.
- Analyses for chlorinated volatile organics by EPA 8260.
- Quantitative analyses for TPH fuel scan (C5-C40) by EPA 8015 mod.
- Analyses for polychlorinated biphenyls by EPA 8082 mod.
- Analyses for polynuclear aromatic hydrocarbons by EPA 8270.
- Analyses for total Pb and Cd by EPA 6020.
- Analyses for TCLP Pb, Cd, and Cr by EPA 1311/6020.

ESN appreciates the opportunity to have provided analytical services to EnviroServices & Training Center on this project. If you have any further questions relating to the data or report, please do not hesitate to contact us.

Sincerely,

A handwritten signature in cursive script that reads "Karen Carvallo".

Karen Carvallo  
Operations Manager  
ESN Pacific  
212 Mohonua Place, Unit C-2  
Honolulu, HI 96819  
Ph: (808) 847-0067  
esn@esnpacific.com

ESN Pacific

DATE \_\_\_\_\_

DIS050193

[illegible]



# Environmental Services Network

EnviroServices & Training Center  
KT&S

ESN Project #D1505050193

## PCB ANALYSES OF SOILS BY EPA 8082 MODIFIED

| SAMPLE NUMBER                                               | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | PCB-1016 (mg/kg) | PCB-1221 (mg/kg) | PCB-1232 (mg/kg) | PCB-1242 (mg/kg) | PCB-1248 (mg/kg) | PCB-1254 (mg/kg) | PCB-1260 (mg/kg) | SURROGATE RECOVERY(%) | FLAGS |
|-------------------------------------------------------------|--------------|----------------|---------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-------|
| Method Blank                                                |              | 5/12/2015      | 5/12/2015     | nd               | nd               | nd               | nd               | nd               | nd               | nd               | 93%                   |       |
| KTS-01-04 Comp.                                             | 5/4/2015     | 5/12/2015      | 5/12/2015     | nd               | nd               | nd               | nd               | nd               | nd               | nd               | 84%                   |       |
| KTS-01-04 Comp. Dup                                         | 5/4/2015     | 5/12/2015      | 5/12/2015     | nd               | nd               | nd               | nd               | nd               | nd               | nd               | 81%                   |       |
| PQL / MDL                                                   |              |                |               | 0.10             | 0.20             | 0.20             | 0.05             | 0.05             | 0.05             | 0.05             |                       |       |
| 2005 HI DOH EAL                                             |              |                |               | 1.10             | 1.10             | 1.10             | 1.10             | 1.10             | 1.10             | 1.10             |                       |       |
| ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65% - 135% |              |                |               |                  |                  |                  |                  |                  |                  |                  |                       |       |

## QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added 1.00  
Measured Conc. 1.00  
% Recovery 99.6%

## QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: 0193 KTS01-04 Comp.

Spike Added 1.00  
Measured Conc. 0.92  
% Recovery 92.4%

Spike Added 1.00  
Measured Conc. 0.86  
% Recovery 85.9%

RPD 7.2%

% Recovery LIMITS: 80% TO 120%  
RPD LIMIT: 20%

ANALYSES PERFORMED AND REVIEWED BY: K. Carvallo

# ESN NORTHWEST CHEMISTRY LABORATORY

EnviroServices & Training Center  
PROJECT KT&S  
ESN PROJECT #D1505050193  
Hawaii

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnnw.com

## Fuel Scan Analysis of Soil by Method 8015 Modified

| Sample Number    | Date Prepared | Date Analyzed | Gasoline-Surrogate Recovery (%) | Diesel-Surrogate Recovery (%) | Gasoline Range Organics (mg/kg) | Diesel Range Organics (mg/kg) | Lube Oil Range Organics (mg/kg) |
|------------------|---------------|---------------|---------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|
| Method Blank     | 5/8/2015      | 5/8/2015      | 109                             | 87                            | nd                              | nd                            | nd                              |
| LCS              | 5/8/2015      | 5/8/2015      | 97                              | 107                           | 92%                             | 120%                          | ---                             |
| KTS.01-04 Comp.  | 5/7/2015      | 5/8/2015      | 92                              | 83                            | nd                              | nd                            | 1000                            |
| Reporting Limits |               |               |                                 |                               | 20                              | 50                            | 100                             |

"---" Indicates not tested for component.

"nd" Indicates not detected at listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



## ESN NORTHWEST CHEMISTRY LABORATORY

EnviroServices & Training Center  
PROJECT KT&S  
ESN PROJECT #D1505050193  
Hawaii

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnnw.com

### Analysis of BTEX in Soil by Method 8260/5035

| Sample Number    | Date Prepared | Date Analyzed | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Xylenes (mg/kg) | Surrogate Recovery (%) |
|------------------|---------------|---------------|-----------------|-----------------|----------------------|-----------------|------------------------|
| Method Blank     | 5/12/2015     | 5/12/2015     | nd              | nd              | nd                   | nd              | 109                    |
| LCS              | 5/12/2015     | 5/12/2015     | 108%            | 89%             | 96%                  | 95%             | 87                     |
| LCSD             | 5/12/2015     | 5/12/2015     | 105%            | 84%             | 89%                  | 90%             | 86                     |
| KTS.01-04 Comp.  | 5/7/2015      | 5/12/2015     | nd              | nd              | nd                   | nd              | 92                     |
| Reporting Limits |               |               | 0.02            | 0.05            | 0.05                 | 0.15            |                        |

"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Bromofluorobenzene) & LCS : 65% TO 135%

# ESN NORTHWEST CHEMISTRY LABORATORY

EnviroServices & Training Center  
PROJECT KT&S  
ESN PROJECT #D1505050193  
Hawaii

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnnw.com

## Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270

|                         | RL      | MB       | LCS      | KTS.01-04 Comp. |
|-------------------------|---------|----------|----------|-----------------|
| Date extracted          |         | 05/12/15 | 05/12/15 | 05/12/15        |
| Date analyzed           |         | 05/12/15 | 05/12/15 | 05/12/15        |
| Moisture, %             | (mg/kg) |          |          | 4%              |
| Naphthalene             | 0.02    | nd       | 84%      | nd              |
| 2-Methylnaphthalene     | 0.02    | nd       | 93%      | nd              |
| 1-Methylnaphthalene     | 0.02    | nd       | ---      | nd              |
| Acenaphthylene          | 0.02    | nd       | 95%      | nd              |
| Acenaphthene            | 0.02    | nd       | 88%      | nd              |
| Fluorene                | 0.02    | nd       | 103%     | nd              |
| Phenanthrene            | 0.02    | nd       | 82%      | 0.10            |
| Anthracene              | 0.02    | nd       | 94%      | nd              |
| Fluoranthene            | 0.02    | nd       | 108%     | 0.21            |
| Pyrene                  | 0.02    | nd       | 102%     | 0.21            |
| Benzo(a)anthracene*     | 0.02    | nd       | 89%      | nd              |
| Chrysene*               | 0.02    | nd       | 83%      | nd              |
| Benzo(b)fluoranthene*   | 0.02    | nd       | 75%      | nd              |
| Benzo(k)fluoranthene*   | 0.02    | nd       | 70%      | nd              |
| Benzo(a)pyrene*         | 0.02    | nd       | 67%      | nd              |
| Indeno(1,2,3-cd)pyrene* | 0.02    | nd       | 88%      | nd              |
| Dibenzo(a,h)anthracene* | 0.02    | nd       | 93%      | nd              |
| Benzo(ghi)perylene      | 0.02    | nd       | 93%      | nd              |
| Total Carcinogens       |         |          |          | nd              |
| Surrogate recoveries:   |         |          |          |                 |
| 2-Fluorobiphenyl        |         | 100%     | 90%      | 103%            |
| p-Terphenyl-d14         |         | 102%     | 101%     | 62%             |

### Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

"---" Indicates not tested for component.

"nd" Indicates not detected at listed detection limits.

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

|                | RI.     | MB       | LCS      | L.CSD    | KTS.01-04 Comp. |
|----------------|---------|----------|----------|----------|-----------------|
| Date extracted |         | 05/12/15 | 05/12/15 | 05/12/15 | 05/07/15        |
| Date analyzed  | (mg/Kg) | 05/12/15 | 05/12/15 | 05/12/15 | 05/12/15        |
| % Moisture     |         |          |          |          | 3.9%            |

|                             |      |    |      |      |    |
|-----------------------------|------|----|------|------|----|
| Dichlorodifluoromethane     | 0.05 | nd |      |      | nd |
| Chloromethane               | 0.05 | nd |      |      | nd |
| Vinyl chloride              | 0.02 | nd | 91%  | 85%  | nd |
| Bromomethane                | 0.05 | nd |      |      | nd |
| Chloroethane                | 0.05 | nd |      |      | nd |
| Trichlorofluoromethane      | 0.05 | nd |      |      | nd |
| 1,1-Dichloroethene          | 0.05 | nd | 84%  | 72%  | nd |
| Methylene chloride          | 0.05 | nd |      |      | nd |
| trans-1,2-Dichloroethene    | 0.05 | nd |      |      | nd |
| 1,1-Dichloroethane          | 0.05 | nd |      |      | nd |
| cis-1,2-Dichloroethene      | 0.05 | nd |      |      | nd |
| 2,2-Dichloropropane         | 0.05 | nd |      |      | nd |
| Chloroform                  | 0.05 | nd | 103% | 102% | nd |
| Bromochloromethane          | 0.05 | nd |      |      | nd |
| 1,1,1-Trichloroethane       | 0.05 | nd |      |      | nd |
| 1,2-Dichloromethane (EDC)   | 0.05 | nd |      |      | nd |
| 1,1-Dichloropropene         | 0.05 | nd |      |      | nd |
| Carbon tetrachloride        | 0.05 | nd |      |      | nd |
| Trichloroethene (TCE)       | 0.02 | nd | 92%  | 92%  | nd |
| 1,2-Dichloropropane         | 0.05 | nd | 89%  | 85%  | nd |
| Dibromomethane              | 0.05 | nd |      |      | nd |
| Bromodichloromethane        | 0.05 | nd |      |      | nd |
| cis-1,3-Dichloropropene     | 0.05 | nd |      |      | nd |
| trans-1,3-Dichloropropene   | 0.05 | nd |      |      | nd |
| 1,1,2-Trichloroethane       | 0.05 | nd |      |      | nd |
| 1,3-Dichloropropane         | 0.05 | nd |      |      | nd |
| Dibromochloromethane        | 0.05 | nd |      |      | nd |
| Tetrachloroethene (PCE)     | 0.02 | nd | 89%  | 87%  | nd |
| 1,2-Dibromomethane (EDB)    | 0.05 | nd |      |      | nd |
| Chlorobenzene               | 0.05 | nd | 89%  | 85%  | nd |
| 1,1,1,2-Tetrachloroethane   | 0.05 | nd |      |      | nd |
| Bromoform                   | 0.05 | nd |      |      | nd |
| 1,1,2,2-Tetrachloroethane   | 0.05 | nd |      |      | nd |
| 1,2,3-Trichloropropane      | 0.05 | nd |      |      | nd |
| Bromobenzene                | 0.05 | nd |      |      | nd |
| 2-Chlorotoluene             | 0.05 | nd |      |      | nd |
| 4-Chlorotoluene             | 0.05 | nd |      |      | nd |
| 1,3-Dichlorobenzene         | 0.05 | nd |      |      | nd |
| 1,4-Dichlorobenzene         | 0.05 | nd |      |      | nd |
| 1,2-Dichlorobenzene         | 0.05 | nd |      |      | nd |
| 1,2-Dibromo-3-Chloropropane | 0.05 | nd |      |      | nd |
| 1,2,4-Trichlorobenzene      | 0.05 | nd |      |      | nd |
| Hexachloro-1,3-butadiene    | 0.05 | nd |      |      | nd |
| 1,2,3-Trichlorobenzene      | 0.05 | nd |      |      | nd |

|                      |      |      |      |      |  |
|----------------------|------|------|------|------|--|
| Surrogate recoveries |      |      |      |      |  |
| Dibromofluoromethane | 118% | 102% | 109% | 106% |  |
| Toluene-d8           | 98%  | 94%  | 93%  | 101% |  |
| 4-Bromofluorobenzene | 109% | 87%  | 86%  | 92%  |  |

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
Acceptable Recovery limits: 65% TO 135%  
Acceptable RPD limit: 35%

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### Total Metals in Soil by EPA-6020 Series

| Sample Number    | Date Analyzed | Lead (Pb)<br>(mg/kg) | Cadmium (Cd)<br>(mg/kg) |
|------------------|---------------|----------------------|-------------------------|
| Method Blank     | 5/11/2015     | nd                   | nd                      |
| KTS.01-04 Comp.  | 5/11/2015     | 74                   | nd                      |
| Reporting Limits |               | 5.0                  | 1.0                     |

"nd" Indicates not detected at the listed detection limits.

### QA/QC Data - Total Metals EPA-6020

| Sample Number: QC Batch |                         |                           |                    |                         |                           |                    |     |
|-------------------------|-------------------------|---------------------------|--------------------|-------------------------|---------------------------|--------------------|-----|
|                         | Matrix Spike            |                           |                    | Matrix Spike Duplicate  |                           |                    | RPD |
|                         | Spiked Conc.<br>(mg/kg) | Measured Conc.<br>(mg/kg) | Spike Recovery (%) | Spiked Conc.<br>(mg/kg) | Measured Conc.<br>(mg/kg) | Spike Recovery (%) |     |
| Lead                    | 90.1                    | 94.5                      | 105                | 99.0                    | 106                       | 107                | 2.1 |
| Cadmium                 | 90.1                    | 97.2                      | 108                | 99.0                    | 107                       | 108                | 0.2 |

| Laboratory Control Sample |                         |                           |                    |
|---------------------------|-------------------------|---------------------------|--------------------|
|                           | Spiked Conc.<br>(mg/kg) | Measured Conc.<br>(mg/kg) | Spike Recovery (%) |
| Lead                      | 100                     | 113                       | 113                |
| Cadmium                   | 100                     | 112                       | 112                |

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%  
ACCEPTABLE RPD IS 35%



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**TCLP Metals in Soil by EPA-Method 1311/6020**

| Sample Number           | Date Analyzed | Lead (Pb)<br>(mg/L) | Cadmium (Cd)<br>(mg/L) | Chromium (Cr)<br>(mg/L) |
|-------------------------|---------------|---------------------|------------------------|-------------------------|
| Method Blank            | 5/13/2015     | nd                  | nd                     | nd                      |
| KTS.01-04 Comp.         | 5/13/2015     | nd                  | nd                     | nd                      |
| KTS.01-04 Comp. Dup.    | 5/13/2015     | nd                  | nd                     | nd                      |
| Method Detection Limits |               | 0.20                | 0.20                   | 0.20                    |

"nd" Indicates not detected at listed detection limits.

**QA/QC Data - TCLP Metals EPA-Method 1311/6020**

| Sample Number:          | Date Analyzed | Lead (Pb)<br>(mg/L) | Cadmium (Cd)<br>(mg/L) | Chromium (Cr)<br>(mg/L) |
|-------------------------|---------------|---------------------|------------------------|-------------------------|
| Matrix Spike Level      |               | 1.00                | 1.00                   | 1.00                    |
| Sample + Matrix Spike   | 5/13/2015     | 1.16                | 1.04                   | 1.16                    |
| Percent Recovery (%)    |               | 116                 | 104                    | 116                     |
| Method Detection Limits |               | 0.20                | 0.20                   | 0.20                    |

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%  
ACCEPTABLE RPD IS 35%

**Sample Preparation Information for  
Toxicity Characteristic Leaching  
Procedure (TCLP) by EPA Method 1311**

|                     |                 |
|---------------------|-----------------|
| Sample Number:      | KTS.01-04 Comp. |
| No. of Extractions: | 1               |
| Type of Extraction: | Rotary          |
| Extraction Fluid:   | #1              |
| Date Extracted:     | 5/12/2015       |

## O'Keefe, Sean at HCS

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**From:** Kihara, Kevin <Kevin.Kihara@doh.hawaii.gov>  
**Sent:** Friday, May 29, 2015 10:11 AM  
**To:** kylie@gotoetc.com  
**Cc:** Ichinotsubo, Lene K; latteinc@hotmail.com; mdcl@maui.net; O'Keefe, Sean at HCS  
**Subject:** KT&S Request For Petroleum Contaminated Soil to Maalaea Landfill

Kylie,

I am responding to the e-mail sent on May 28, 2015 to Janice and Lene.

Your request to dispose of approximately 30 cubic yards of Petroleum Contaminated Soil (PCS) generated from cleanup of petroleum spills at the Kahului Trucking and Storage, Inc. facility in Kahului at the Maui Demolition and Construction Landfill in Maalaea has been approved.

This approval is based on the lab results of the contaminated soil provided as an attachment to the May 28, 2015 e-mail, and that the reported total petroleum hydrocarbon (TPH) concentration of 1,000 parts per million (ppm) is less than the 2,000 ppm limit in the July 19, 2005 addendum to the PCS Disposal Plan for the subject landfill. I will add this e-mail to the project file to document the approval.

If you have any questions regarding this matter, please call or e-mail to discuss.

Kevin Kihara  
Hawaii Department of Health  
Solid and Hazardous Waste Branch  
(808) 586-4226  
[kevin.kihara@doh.hawaii.gov](mailto:kevin.kihara@doh.hawaii.gov)

---

**From:** Kylie Luke [mailto:[kylie@gotoetc.com](mailto:kylie@gotoetc.com)]  
**Sent:** Thursday, May 28, 2015 11:13 AM  
**To:** 'ifumimoto@doh.hawaii.gov'; 'lene.ichinotsubo@doh.hawaii.gov'  
**Subject:** KT&S Request For Petroleum Contaminated Soil to Maalaea Landfill

Janice/Lene

My name is Kylie Luke (EnviroServices & Training Center) and I'm the consultant for Kahului Trucking & Storage (KT&S). I'm currently in the process of obtaining approval from Maalaea Maui Demolition & Construction Landfill to dispose of 30 yards of petroleum contaminated soil (PCS) generated by KT&S.

After speaking with Joseph Hernandez (Maalaea's consultant) he informed me that since TPH-O concentrations of 1,000 ppm was above the landfill's permitted acceptance levels, I need to get approval from the DOH SHWB.

I have attached the profile and also letter from landfill stating that they will accept the 30 yards of PCS. Can you please let me know if there is any other information you need?

Thanks

Kylie