TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 320-4779-1
Client Project/Site: Hanalei Bay Sediments

For:
Hanalei River Heritage Foundation
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Hanalei, Hawaii 96714

Attn: Mr. Terry Lilley

Authorized for release by:
12/18/2013 5:22:49 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.
B	Compound was found in the blank and sample.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Dioxin

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The isomer is qualified as positively identified, but at an estimated quantity because the quantitation is based on the theoretical ratio for these samples.
B	Compound was found in the blank and sample.
*	LCS or LCSD exceeds the control limits
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
*	Isotope Dilution analyte exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS/MSD Recovery and/or RPD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 320-4779-1

Laboratory: TestAmerica Sacramento

Narrative

Comments

Please note-Glyphosate was analyzed by North Coast Laboratories. The report for this analyte can be found in its entirety in the Subcontract Data section of this report.

Receipt

The samples in this report were received on 10/30/2013 9:20 AM. The samples arrived at 9.9-12.3 degrees C. There was melted ice present in the coolers. As instructed, the laboratory proceeded with the analysis of the samples.

GC/MS Semi VOA

Method 8141A

The initial calibration verification (ICV) associated with batch 199994 was outside method criteria for the following analyte: Metribuzin. As indicated in the reference method, sample analysis may proceed but any detections for this analyte in the associated samples should be considered estimated. The associated samples are ANINI BAY-1 (320-4779-3), ANINI BAY-2 (320-4779-4), ANINI CREEK-1 (320-4779-9), ANINI CREEK-2 (320-4779-10), HANALEI BAY-1 (320-4779-1), HANALEI BAY-2 (320-4779-2), HANALEI RIVER-1 (320-4779-7), HANALEI RIVER-2 (320-4779-8), SEALODGE REEF-1 (320-4779-5), & SEALODGE REEF-2 (320-4779-6).

Method 8270D:

The following samples were diluted due to the nature of their matrix (dark in color and oily) : HANALEI BAY-1 (320-4779-1), HANALEI BAY-2 (320-4779-2), SEALODGE REEF-1 (320-4779-5), SEALODGE REEF-2 (320-4779-6), ANINI BAY-1 (320-4779-3), ANINI BAY-2 (320-4779-4), ANINI CREEK-1 (320-4779-9), ANINI CREEK-2 (320-4779-10), HANALEI RIVER-1 (320-4779-7), HANALEI RIVER-2 (320-4779-8). Due to the dilutions, the surrogate recoveries should be considered estimated values. The reporting limits for the affected samples have been elevated accordingly.

The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for batch 89262 recovered outside control limits for the following analyte: Benzaldehyde. This analyte has been identified as a poor performing analyte for this method so no corrective action was performed. Results for this analyte may be biased low.

One surrogate recovery was outside control limits for the following samples: ANINI CREEK-1 (320-4779-9), SEALODGE REEF-2 (320-4779-6), & ANINI CREEK-2 (320-4779-10). Evidence of matrix interference is present in the samples so no corrective action was performed.

No other analytical or quality issues were noted.

Dioxins/Furans

Method 1613B:

Samples (MB 320-29586/1-A), ANINI BAY-1 (320-4779-3), ANINI BAY-2 (320-4779-4), ANINI CREEK-1 (320-4779-9), ANINI CREEK-2 (320-4779-10), HANALEI BAY-1 (320-4779-1), HANALEI BAY-2 (320-4779-2), HANALEI RIVER-1 (320-4779-7), HANALEI RIVER-2 (320-4779-8), SEALODGE REEF-1 (320-4779-5), and SEALODGE REEF-2 (320-4779-6) each have one or more target analytes with an ion abundance ratio outside criteria. Quantitation is based on theoretical ion abundance ratios; therefore, the affected analytes have been reported as estimated maximum possible concentrations (EMPCs). The affected analytes have been flagged with a "q" qualifier.

No other analytical or quality issues were noted.

Organochlorine Pesticides

Method1699:

The method associated with preparation batch 320-29583 is positive for delta-BHC above the reporting limit (RL). As all sample results are non-detect "ND" for this analyte, no corrective action was performed.

Samples ANINI CREEK-1 (320-4779-9), ANINI CREEK-2 (320-4779-10), HANALEI RIVER-1 (320-4779-7), HANALEI RIVER-2 (320-4779-8), SEALODGE REEF-2 (320-4779-6), (MB 320-29583/1-A), ANINI BAY-1 (320-4779-3), ANINI BAY-2 (320-4779-4), HANALEI BAY-1 (320-4779-1), HANALEI BAY-2 (320-4779-2), and SEALODGE REEF-1 (320-4779-5) each have one or more target analytes with an ion abundance ratio outside criteria. Quantitation is based on theoretical ion abundance ratios; therefore, the affected analytes have been reported as estimated maximum possible concentrations (EMPCs). The affected analytes have been flagged with a "q" qualifier.

No other analytical or quality issues were noted.

Job ID: 320-4779-1 (Continued)

Laboratory: TestAmerica Sacramento (Continued)

Toxaphene
Method 1699
The laboratory control sample (LCS) associated with batch 29853 recovered has a recovery for Toxaphene above the upper control limit. This could indicate a high bias for this analyte in the associated samples. As all samples are non-detect "ND" for this analyte, no corrective action was performed.

The reporting limit for Toxaphene is elevated in sample ANINI CREEK-2 (320-4779-10) due to the sample matrix.

Sample HANALEI RIVER-1 (320-4779-7) has a Isotope Dilution Analyte (IDA) recovery slightly below the lower control limit. Data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDAs for this sample.

No other analytical or quality issues were noted.

Metals
Method 6020:
Samples ANINI CREEK-2 (320-4779-10 MS), ANINI CREEK-2 (320-4779-10 MSD), ANINI CREEK-2 (320-4779-10 PDS), ANINI CREEK-2 (320-4779-10 SD), (CCB 320-30453/22), ANINI BAY-2 (320-4779-4), ANINI CREEK-1 (320-4779-9), ANINI CREEK-2 (320-4779-10), HANALEI RIVER-1 (320-4779-7), HANALEI RIVER-2 (320-4779-8), SEALODGE REEF-1 (320-4779-5), and SEALODGE REEF-2 (320-4779-6) required dilution due to their matrix. Reporting limits are raised appropriately.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Prep
Method 1699: A reduced sample size was extracted for the following samples due to limited sample volumes: HANALEI BAY-2 (320-4779-2) & HANALEI RIVER-2 (320-4779-8). The reporting limits for these samples were elevated accordingly.

Method 1613B: A reduced sample size was extracted for the following samples due to limited sample volumes: HANALEI BAY-2 (320-4779-2) & HANALEI RIVER-2 (320-4779-8). The reporting limits for these samples were elevated accordingly.

No other analytical or quality issues were noted.

Detection Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-1 — Lab Sample ID: 320-4779-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.66	J	9.9	0.093	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.33	J	9.9	0.075	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.31	J q	9.9	0.075	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.44	J B	9.9	0.080	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.18	J B	9.9	0.073	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDF	0.15	J q	9.9	0.090	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	3.5	J	9.9	0.18	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1.4	J B	9.9	0.091	pg/g	1	☼	1613B	Total/NA
OCDD	34	B	20	0.38	pg/g	1	☼	1613B	Total/NA
OCDF	2.4	J B	20	0.14	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.95	J q B	2.0	0.14	pg/g	1	☼	1613B	Total/NA
Total TCDF	0.97	J	2.0	0.17	pg/g	1	☼	1613B	Total/NA
Total PeCDF	0.37	J	9.9	0.30	pg/g	1	☼	1613B	Total/NA
Total HxCDD	3.7	J q	9.9	0.081	pg/g	1	☼	1613B	Total/NA
Total HxCDF	1.7	J q B	9.9	0.079	pg/g	1	☼	1613B	Total/NA
Total HpCDD	7.2	J B	9.9	0.18	pg/g	1	☼	1613B	Total/NA
Total HpCDF	2.4	J B	9.9	0.11	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.012	J B	0.079	0.0017	ug/Kg	1	☼	1699	Total/NA
cis-Chlordane	0.0052	J q	0.079	0.0018	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.0080	J B q	0.079	0.0016	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0089	J q	0.079	0.0023	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.0030	J q	0.079	0.00082	ug/Kg	1	☼	1699	Total/NA
Heptachlor	0.00099	J B q	0.079	0.00047	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.050	J B	0.079	0.00015	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0032	J B q	0.079	0.00025	ug/Kg	1	☼	1699	Total/NA
cis-Nonachlor	0.0065	J q	0.079	0.0026	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.013	J	0.079	0.0019	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzaldehyde	270	J *	330	50	ug/Kg	5	☼	8270D LL	Total/NA
Antimony	0.22	J	0.23	0.12	mg/Kg	1	☼	6020	Total/NA
Arsenic	18		0.23	0.18	mg/Kg	1	☼	6020	Total/NA
Barium	12		0.12	0.11	mg/Kg	1	☼	6020	Total/NA
Beryllium	0.29		0.12	0.012	mg/Kg	1	☼	6020	Total/NA
Cadmium	0.99		0.12	0.059	mg/Kg	1	☼	6020	Total/NA
Chromium	130		0.23	0.12	mg/Kg	1	☼	6020	Total/NA
Cobalt	23		0.12	0.012	mg/Kg	1	☼	6020	Total/NA
Copper	26		0.23	0.12	mg/Kg	1	☼	6020	Total/NA
Lead	1.9		0.12	0.070	mg/Kg	1	☼	6020	Total/NA
Molybdenum	0.72		0.23	0.023	mg/Kg	1	☼	6020	Total/NA
Nickel	150		0.23	0.12	mg/Kg	1	☼	6020	Total/NA
Selenium	0.92		0.23	0.12	mg/Kg	1	☼	6020	Total/NA
Silver	0.19		0.12	0.035	mg/Kg	1	☼	6020	Total/NA
Vanadium	80		1.2	0.35	mg/Kg	1	☼	6020	Total/NA
Zinc	36		1.2	0.70	mg/Kg	1	☼	6020	Total/NA
Mercury	0.032	J	0.082	0.018	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: HANALEI BAY-2 — Lab Sample ID: 320-4779-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.74	J	16	0.11	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HANALEI BAY-2 (Continued) — Lab Sample ID: 320-4779-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,6,7,8-HxCDD	0.17	J q	16	0.093	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.36	J	16	0.092	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.54	J B	16	0.079	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.10	J q B	16	0.071	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	3.1	J	16	0.15	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	5.8	J B	16	0.11	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8,9-HpCDF	0.21	J q	16	0.16	pg/g	1	☼	1613B	Total/NA
OCDD	30	J B	32	0.45	pg/g	1	☼	1613B	Total/NA
OCDF	22	J B	32	0.30	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.53	J q B	3.2	0.17	pg/g	1	☼	1613B	Total/NA
Total TCDF	0.35	J q	3.2	0.16	pg/g	1	☼	1613B	Total/NA
Total PeCDF	2.3	J q	16	0.35	pg/g	1	☼	1613B	Total/NA
Total HxCDD	3.4	J q	16	0.10	pg/g	1	☼	1613B	Total/NA
Total HxCDF	1.3	J q B	16	0.076	pg/g	1	☼	1613B	Total/NA
Total HpCDD	6.1	J B	16	0.15	pg/g	1	☼	1613B	Total/NA
Total HpCDF	7.4	J q B	16	0.13	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.013	J B	0.13	0.0022	ug/Kg	1	☼	1699	Total/NA
cis-Chlordane	0.010	J	0.13	0.0029	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.010	J B	0.13	0.0026	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.013	J	0.13	0.0031	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.0029	J q	0.13	0.00099	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.084	J B	0.13	0.00021	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0033	J B q	0.13	0.00028	ug/Kg	1	☼	1699	Total/NA
cis-Nonachlor	0.0073	J	0.13	0.0030	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.010	J	0.13	0.0031	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzaldehyde	220	J *	270	42	ug/Kg	5	☼	8270D LL	Total/NA
Antimony	0.12	J	0.20	0.098	mg/Kg	1	☼	6020	Total/NA
Arsenic	16		0.20	0.15	mg/Kg	1	☼	6020	Total/NA
Barium	9.1		0.098	0.089	mg/Kg	1	☼	6020	Total/NA
Beryllium	0.22		0.098	0.0098	mg/Kg	1	☼	6020	Total/NA
Cadmium	0.74		0.098	0.049	mg/Kg	1	☼	6020	Total/NA
Chromium	100		0.20	0.098	mg/Kg	1	☼	6020	Total/NA
Cobalt	19		0.098	0.0098	mg/Kg	1	☼	6020	Total/NA
Copper	20		0.20	0.098	mg/Kg	1	☼	6020	Total/NA
Lead	1.4		0.098	0.059	mg/Kg	1	☼	6020	Total/NA
Molybdenum	0.47		0.20	0.020	mg/Kg	1	☼	6020	Total/NA
Nickel	130		0.20	0.098	mg/Kg	1	☼	6020	Total/NA
Selenium	0.65		0.20	0.098	mg/Kg	1	☼	6020	Total/NA
Silver	0.16		0.098	0.030	mg/Kg	1	☼	6020	Total/NA
Vanadium	61		0.98	0.30	mg/Kg	1	☼	6020	Total/NA
Zinc	28		0.98	0.59	mg/Kg	1	☼	6020	Total/NA
Mercury	0.025	J	0.064	0.014	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: ANINI BAY-1 — Lab Sample ID: 320-4779-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.45	J B	6.5	0.037	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.071	J q B	6.5	0.032	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.80	J	6.5	0.063	pg/g	1	☼	1613B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: ANINI BAY-1 (Continued) — Lab Sample ID: 320-4779-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDF	1.1	J B	6.5	0.033	pg/g	1	☼	1613B	Total/NA
OCDD	7.9	J B	13	0.098	pg/g	1	☼	1613B	Total/NA
OCDF	0.72	J B	13	0.059	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.11	J q B	1.3	0.054	pg/g	1	☼	1613B	Total/NA
Total HxCDD	0.62	J q	6.5	0.041	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.78	J q B	6.5	0.035	pg/g	1	☼	1613B	Total/NA
Total HpCDD	2.3	J B	6.5	0.063	pg/g	1	☼	1613B	Total/NA
Total HpCDF	1.4	J B	6.5	0.041	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.0063	J B	0.052	0.00089	ug/Kg	1	☼	1699	Total/NA
4,4'-DDE	0.0045	J	0.052	0.0012	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0065	J	0.052	0.0015	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.00085	J q	0.052	0.00043	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.031	J B	0.052	0.000080	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0010	J B q	0.052	0.000094	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.22	J	0.26	0.13	mg/Kg	1	☼	6020	Total/NA
Arsenic	9.8		0.26	0.19	mg/Kg	1	☼	6020	Total/NA
Barium	13		0.13	0.12	mg/Kg	1	☼	6020	Total/NA
Beryllium	0.064	J	0.13	0.013	mg/Kg	1	☼	6020	Total/NA
Cadmium	0.34		0.13	0.065	mg/Kg	1	☼	6020	Total/NA
Chromium	44		0.26	0.13	mg/Kg	1	☼	6020	Total/NA
Cobalt	4.7		0.13	0.013	mg/Kg	1	☼	6020	Total/NA
Copper	5.1		0.26	0.13	mg/Kg	1	☼	6020	Total/NA
Lead	0.78		0.13	0.077	mg/Kg	1	☼	6020	Total/NA
Molybdenum	0.59		0.26	0.026	mg/Kg	1	☼	6020	Total/NA
Nickel	18		0.26	0.13	mg/Kg	1	☼	6020	Total/NA
Selenium	0.73		0.26	0.13	mg/Kg	1	☼	6020	Total/NA
Silver	0.074	J	0.13	0.039	mg/Kg	1	☼	6020	Total/NA
Vanadium	45		1.3	0.39	mg/Kg	1	☼	6020	Total/NA
Zinc	9.9		1.3	0.77	mg/Kg	1	☼	6020	Total/NA
Mercury	0.014	J	0.050	0.011	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: ANINI BAY-2 — Lab Sample ID: 320-4779-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8,9-HxCDD	0.092	J q	6.9	0.043	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.083	J q B	6.9	0.044	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	1.5	J	6.9	0.092	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.42	J B	6.9	0.035	pg/g	1	☼	1613B	Total/NA
OCDD	17	B	14	0.22	pg/g	1	☼	1613B	Total/NA
OCDF	0.58	J B	14	0.068	pg/g	1	☼	1613B	Total/NA
Total HxCDD	1.4	J q	6.9	0.046	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.28	J q B	6.9	0.042	pg/g	1	☼	1613B	Total/NA
Total HpCDD	4.6	J B	6.9	0.092	pg/g	1	☼	1613B	Total/NA
Total HpCDF	0.80	J q B	6.9	0.044	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.0050	J B	0.055	0.00086	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.0022	J B	0.055	0.00069	ug/Kg	1	☼	1699	Total/NA
4,4'-DDE	0.0071	J	0.055	0.0011	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.00078	J q	0.055	0.00032	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.036	J B	0.055	0.000071	ug/Kg	1	☼	1699	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: ANINI BAY-2 (Continued) — Lab Sample ID: 320-4779-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Mirex	0.00096	J B q	0.055	0.00011	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12		1.4	1.0	mg/Kg	5	☼	6020	Total/NA
Barium	9.7		0.68	0.61	mg/Kg	5	☼	6020	Total/NA
Beryllium	0.10	J	0.68	0.068	mg/Kg	5	☼	6020	Total/NA
Chromium	43		1.4	0.68	mg/Kg	5	☼	6020	Total/NA
Cobalt	4.9		0.68	0.068	mg/Kg	5	☼	6020	Total/NA
Copper	5.2		1.4	0.68	mg/Kg	5	☼	6020	Total/NA
Lead	0.75		0.68	0.41	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.46	J	1.4	0.14	mg/Kg	5	☼	6020	Total/NA
Nickel	28		1.4	0.68	mg/Kg	5	☼	6020	Total/NA
Selenium	1.8		1.4	0.68	mg/Kg	5	☼	6020	Total/NA
Vanadium	41		6.8	2.0	mg/Kg	5	☼	6020	Total/NA
Zinc	13		6.8	4.1	mg/Kg	5	☼	6020	Total/NA
Mercury	0.017	J	0.055	0.012	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: SEALODGE REEF-1 — Lab Sample ID: 320-4779-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.21	J B	6.7	0.038	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.31	J q	6.7	0.049	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.58	J B	6.7	0.036	pg/g	1	☼	1613B	Total/NA
OCDD	3.6	J B	13	0.086	pg/g	1	☼	1613B	Total/NA
OCDF	0.78	J B	13	0.087	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.14	J B	1.3	0.053	pg/g	1	☼	1613B	Total/NA
Total HxCDD	0.080	J q	6.7	0.040	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.33	J q B	6.7	0.040	pg/g	1	☼	1613B	Total/NA
Total HpCDD	0.88	J q B	6.7	0.049	pg/g	1	☼	1613B	Total/NA
Total HpCDF	0.79	J B	6.7	0.044	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.0045	J B	0.054	0.00076	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.0015	J B q	0.054	0.00057	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0043	J	0.054	0.0010	ug/Kg	1	☼	1699	Total/NA
Heptachlor	0.00060	J B q	0.054	0.00017	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.034	J B	0.054	0.000080	ug/Kg	1	☼	1699	Total/NA
Mirex	0.00060	J B q	0.054	0.000077	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0		0.88	0.66	mg/Kg	5	☼	6020	Total/NA
Barium	4.8		0.44	0.40	mg/Kg	5	☼	6020	Total/NA
Chromium	15		0.88	0.44	mg/Kg	5	☼	6020	Total/NA
Cobalt	1.8		0.44	0.044	mg/Kg	5	☼	6020	Total/NA
Copper	1.8		0.88	0.44	mg/Kg	5	☼	6020	Total/NA
Lead	0.32	J	0.44	0.26	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.19	J	0.88	0.088	mg/Kg	5	☼	6020	Total/NA
Nickel	11		0.88	0.44	mg/Kg	5	☼	6020	Total/NA
Selenium	1.4		0.88	0.44	mg/Kg	5	☼	6020	Total/NA
Vanadium	6.5		4.4	1.3	mg/Kg	5	☼	6020	Total/NA
Zinc	3.3	J	4.4	2.6	mg/Kg	5	☼	6020	Total/NA

Client Sample ID: SEALODGE REEF-2 — Lab Sample ID: 320-4779-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: SEALODGE REEF-2 (Continued) — Lab Sample ID: 320-4779-6

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.072	J q B	6.5	0.030	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.27	J	6.5	0.037	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.25	J B	6.5	0.027	pg/g	1	☼	1613B	Total/NA
OCDD	2.0	J B	13	0.065	pg/g	1	☼	1613B	Total/NA
OCDF	0.31	J B	13	0.057	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.12	J B	1.3	0.047	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.072	J q B	6.5	0.028	pg/g	1	☼	1613B	Total/NA
Total HpCDD	0.67	J q B	6.5	0.037	pg/g	1	☼	1613B	Total/NA
Total HpCDF	0.34	J q B	6.5	0.033	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.0039	J B q	0.050	0.0017	ug/Kg	1	☼	1699	Total/NA
cis-Chlordane	0.0011	J q	0.050	0.00099	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0062	J	0.050	0.0019	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.00067	J q	0.050	0.00042	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.031	J B	0.050	0.00012	ug/Kg	1	☼	1699	Total/NA
Mirex	0.00056	J B q	0.050	0.00013	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1		0.65	0.49	mg/Kg	5	☼	6020	Total/NA
Barium	4.0		0.33	0.29	mg/Kg	5	☼	6020	Total/NA
Chromium	12		0.65	0.33	mg/Kg	5	☼	6020	Total/NA
Cobalt	1.4		0.33	0.033	mg/Kg	5	☼	6020	Total/NA
Copper	1.2		0.65	0.33	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.14	J	0.65	0.065	mg/Kg	5	☼	6020	Total/NA
Nickel	8.2		0.65	0.33	mg/Kg	5	☼	6020	Total/NA
Selenium	0.58	J	0.65	0.33	mg/Kg	5	☼	6020	Total/NA
Vanadium	4.8		3.3	0.98	mg/Kg	5	☼	6020	Total/NA
Zinc	2.2	J	3.3	2.0	mg/Kg	5	☼	6020	Total/NA

Client Sample ID: HANALEI RIVER-1 — Lab Sample ID: 320-4779-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.21	J q	6.8	0.058	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.21	J	6.8	0.046	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.21	J	6.8	0.046	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.17	J q B	6.8	0.048	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.075	J B	6.8	0.043	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	4.4	J	6.8	0.13	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.97	J B	6.8	0.054	pg/g	1	☼	1613B	Total/NA
OCDD	45	B	14	0.49	pg/g	1	☼	1613B	Total/NA
OCDF	1.9	J B	14	0.077	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.92	J q B	1.4	0.070	pg/g	1	☼	1613B	Total/NA
Total TCDF	0.14	J q	1.4	0.076	pg/g	1	☼	1613B	Total/NA
Total PeCDD	0.11	J	6.8	0.11	pg/g	1	☼	1613B	Total/NA
Total PeCDF	0.14	J	6.8	0.13	pg/g	1	☼	1613B	Total/NA
Total HxCDD	2.5	J q	6.8	0.050	pg/g	1	☼	1613B	Total/NA
Total HxCDF	1.0	J q B	6.8	0.047	pg/g	1	☼	1613B	Total/NA
Total HpCDD	9.9	B	6.8	0.13	pg/g	1	☼	1613B	Total/NA
Total HpCDF	2.3	J B	6.8	0.066	pg/g	1	☼	1613B	Total/NA
gamma-BHC (Lindane)	0.0046	J B q	0.056	0.0018	ug/Kg	1	☼	1699	Total/NA
cis-Chlordane	0.0092	J	0.056	0.0011	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.011	J B	0.056	0.00093	ug/Kg	1	☼	1699	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HANALEI RIVER-1 (Continued) — Lab Sample ID: 320-4779-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	0.011	J q	0.056	0.0027	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.011	J	0.056	0.0015	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.032	J B	0.056	0.00012	ug/Kg	1	☼	1699	Total/NA
Mirex	0.00073	J B q	0.056	0.00014	ug/Kg	1	☼	1699	Total/NA
cis-Nonachlor	0.0073	J	0.056	0.0016	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.012	J	0.056	0.0012	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	14		1.5	1.1	mg/Kg	5	☼	6020	Total/NA
Barium	16		0.73	0.65	mg/Kg	5	☼	6020	Total/NA
Beryllium	0.34	J	0.73	0.073	mg/Kg	5	☼	6020	Total/NA
Cadmium	1.2		0.73	0.36	mg/Kg	5	☼	6020	Total/NA
Chromium	160		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Cobalt	55		0.73	0.073	mg/Kg	5	☼	6020	Total/NA
Copper	39		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Lead	2.7		0.73	0.44	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.37	J	1.5	0.15	mg/Kg	5	☼	6020	Total/NA
Nickel	480		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Vanadium	77		7.3	2.2	mg/Kg	5	☼	6020	Total/NA
Zinc	76		7.3	4.4	mg/Kg	5	☼	6020	Total/NA
Mercury	0.018	J	0.059	0.013	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: HANALEI RIVER-2 — Lab Sample ID: 320-4779-8

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDD	0.38	J q	15	0.088	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDD	0.30	J	15	0.071	pg/g	1	☼	1613B	Total/NA
1,2,3,7,8,9-HxCDD	0.29	J	15	0.071	pg/g	1	☼	1613B	Total/NA
1,2,3,4,7,8-HxCDF	0.27	J B	15	0.082	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	5.0	J	15	0.17	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	1.5	J B	15	0.10	pg/g	1	☼	1613B	Total/NA
OCDD	38	B	31	0.53	pg/g	1	☼	1613B	Total/NA
OCDF	2.6	J B	31	0.16	pg/g	1	☼	1613B	Total/NA
Total TCDD	1.1	J q B	3.1	0.14	pg/g	1	☼	1613B	Total/NA
Total TCDF	0.39	J	3.1	0.16	pg/g	1	☼	1613B	Total/NA
Total HxCDD	3.1	J q	15	0.077	pg/g	1	☼	1613B	Total/NA
Total HxCDF	1.3	J q B	15	0.078	pg/g	1	☼	1613B	Total/NA
Total HpCDD	9.9	J B	15	0.17	pg/g	1	☼	1613B	Total/NA
Total HpCDF	3.2	J B	15	0.13	pg/g	1	☼	1613B	Total/NA
cis-Chlordane	0.026	J	0.12	0.0020	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.022	J B	0.12	0.0018	ug/Kg	1	☼	1699	Total/NA
4,4'-DDE	0.020	J	0.12	0.0059	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0090	J q	0.12	0.0030	ug/Kg	1	☼	1699	Total/NA
Heptachlor	0.0020	J B	0.12	0.00064	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.066	J B	0.12	0.00025	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0041	J B q	0.12	0.00030	ug/Kg	1	☼	1699	Total/NA
cis-Nonachlor	0.010	J q	0.12	0.0030	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.021	J	0.12	0.0022	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	15		1.5	1.1	mg/Kg	5	☼	6020	Total/NA
Barium	18		0.73	0.66	mg/Kg	5	☼	6020	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HANALEI RIVER-2 (Continued) — Lab Sample ID: 320-4779-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.39	J	0.73	0.073	mg/Kg	5	☼	6020	Total/NA
Cadmium	1.2		0.73	0.37	mg/Kg	5	☼	6020	Total/NA
Chromium	180		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Cobalt	61		0.73	0.073	mg/Kg	5	☼	6020	Total/NA
Copper	43		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Lead	2.9		0.73	0.44	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.41	J	1.5	0.15	mg/Kg	5	☼	6020	Total/NA
Nickel	530		1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Selenium	0.99	J	1.5	0.73	mg/Kg	5	☼	6020	Total/NA
Silver	0.24	J	0.73	0.22	mg/Kg	5	☼	6020	Total/NA
Vanadium	88		7.3	2.2	mg/Kg	5	☼	6020	Total/NA
Zinc	82		7.3	4.4	mg/Kg	5	☼	6020	Total/NA
Mercury	0.022	J	0.060	0.013	mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: ANINI CREEK-1 — Lab Sample ID: 320-4779-9

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.13	J B	7.3	0.044	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	0.53	J q	7.3	0.044	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.47	J B	7.3	0.033	pg/g	1	☼	1613B	Total/NA
OCDD	6.4	J B	15	0.12	pg/g	1	☼	1613B	Total/NA
OCDF	0.65	J B	15	0.073	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.16	J q B	1.5	0.067	pg/g	1	☼	1613B	Total/NA
Total HxCDD	0.25	J q	7.3	0.049	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.33	J q B	7.3	0.042	pg/g	1	☼	1613B	Total/NA
Total HpCDD	1.8	J q B	7.3	0.044	pg/g	1	☼	1613B	Total/NA
Total HpCDF	0.82	J q B	7.3	0.042	pg/g	1	☼	1613B	Total/NA
cis-Chlordane	0.0036	J	0.059	0.0010	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.0031	J B q	0.059	0.00088	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0036	J q	0.059	0.0015	ug/Kg	1	☼	1699	Total/NA
Endosulfan sulfate	0.0030	J q	0.059	0.00041	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.033	J B	0.059	0.00013	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0031	J B	0.059	0.00013	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.0029	J	0.059	0.0010	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	7.6		0.85	0.63	mg/Kg	5	☼	6020	Total/NA
Barium	11		0.42	0.38	mg/Kg	5	☼	6020	Total/NA
Beryllium	0.056	J	0.42	0.042	mg/Kg	5	☼	6020	Total/NA
Chromium	32		0.85	0.42	mg/Kg	5	☼	6020	Total/NA
Cobalt	20		0.42	0.042	mg/Kg	5	☼	6020	Total/NA
Copper	4.4		0.85	0.42	mg/Kg	5	☼	6020	Total/NA
Lead	0.66		0.42	0.25	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.30	J	0.85	0.085	mg/Kg	5	☼	6020	Total/NA
Nickel	18		0.85	0.42	mg/Kg	5	☼	6020	Total/NA
Selenium	1.8		0.85	0.42	mg/Kg	5	☼	6020	Total/NA
Vanadium	25		4.2	1.3	mg/Kg	5	☼	6020	Total/NA
Zinc	9.3		4.2	2.5	mg/Kg	5	☼	6020	Total/NA
Mercury	0.024	J	0.059	0.013	mg/Kg	1	☼	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI CREEK-2 — Lab Sample ID: 320-4779-10

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.14	J q B	7.0	0.037	pg/g	1	☼	1613B	Total/NA
1,2,3,6,7,8-HxCDF	0.088	J B	7.0	0.033	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDD	2.3	J	7.0	0.062	pg/g	1	☼	1613B	Total/NA
1,2,3,4,6,7,8-HpCDF	0.76	J B	7.0	0.040	pg/g	1	☼	1613B	Total/NA
OCDD	16	B	14	0.15	pg/g	1	☼	1613B	Total/NA
OCDF	0.79	J B	14	0.063	pg/g	1	☼	1613B	Total/NA
Total TCDD	0.32	J q B	1.4	0.066	pg/g	1	☼	1613B	Total/NA
Total HxCDD	0.43	J q	7.0	0.040	pg/g	1	☼	1613B	Total/NA
Total HxCDF	0.46	J q B	7.0	0.036	pg/g	1	☼	1613B	Total/NA
Total HpCDD	4.7	J B	7.0	0.062	pg/g	1	☼	1613B	Total/NA
Total HpCDF	1.4	J B	7.0	0.050	pg/g	1	☼	1613B	Total/NA
cis-Chlordane	0.0021	J	0.056	0.00087	ug/Kg	1	☼	1699	Total/NA
trans-Chlordane	0.0028	J B	0.056	0.00075	ug/Kg	1	☼	1699	Total/NA
Dieldrin	0.0028	J	0.056	0.0013	ug/Kg	1	☼	1699	Total/NA
Endrin aldehyde	0.011	J q	0.056	0.0026	ug/Kg	1	☼	1699	Total/NA
Hexachlorobenzene	0.040	J B	0.056	0.00012	ug/Kg	1	☼	1699	Total/NA
Methoxychlor	0.027	J B q	0.056	0.0038	ug/Kg	1	☼	1699	Total/NA
Mirex	0.0011	J B q	0.056	0.00011	ug/Kg	1	☼	1699	Total/NA
trans-Nonachlor	0.0035	J	0.056	0.00092	ug/Kg	1	☼	1699	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.1		1.4	1.1	mg/Kg	5	☼	6020	Total/NA
Barium	13		0.72	0.65	mg/Kg	5	☼	6020	Total/NA
Beryllium	0.16	J	0.72	0.072	mg/Kg	5	☼	6020	Total/NA
Cadmium	0.37	J	0.72	0.36	mg/Kg	5	☼	6020	Total/NA
Chromium	39		1.4	0.72	mg/Kg	5	☼	6020	Total/NA
Cobalt	4.4		0.72	0.072	mg/Kg	5	☼	6020	Total/NA
Copper	4.5		1.4	0.72	mg/Kg	5	☼	6020	Total/NA
Lead	1.1		0.72	0.43	mg/Kg	5	☼	6020	Total/NA
Molybdenum	0.43	J	1.4	0.14	mg/Kg	5	☼	6020	Total/NA
Nickel	21		1.4	0.72	mg/Kg	5	☼	6020	Total/NA
Selenium	1.5		1.4	0.72	mg/Kg	5	☼	6020	Total/NA
Vanadium	32		7.2	2.2	mg/Kg	5	☼	6020	Total/NA
Zinc	11		7.2	4.3	mg/Kg	5	☼	6020	Total/NA
Mercury	0.024	J	0.055	0.012	mg/Kg	1	☼	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-1
Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-1
Matrix: Solid
Percent Solids: 49.8

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Ametryn	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Atrazine	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Azinphos-methyl	ND		130	17	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Bolstar	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Bromacil	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Butachlor	ND		66	17	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Chlorpyrifos	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Coumaphos	ND		660	26	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Dichlorvos	ND		130	14	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Dimethoate	ND		130	16	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Disulfoton	ND		130	12	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
EPN	ND		130	16	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Fensulfothion	ND		660	22	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Fenthion	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Methyl parathion	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Metolachlor	ND		66	14	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Metribuzin	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Malathion	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Ethyl Parathion	ND		66	17	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Phorate	ND		66	20	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Prometon	ND		66	24	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Prometryn	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Propazine	ND		66	11	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Simazine	ND		66	14	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Stirophos	ND		66	36	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Sulfotepp	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Thionazin	ND		66	18	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Trichloronate	ND		660	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Tokuthion	ND		66	42	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Ethoprop	ND		66	22	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Ronnel	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Terbutryn	ND		66	17	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Simetryn	ND		66	16	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Vernolate	ND		66	32	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Cyanizine	ND		66	16	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Cycloate	ND		66	22	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
EPTC	ND		66	13	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Butylate	ND		66	26	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Molinate	ND		66	44	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1
Pebulate	ND		66	15	ug/Kg	☼	11/04/13 07:16	11/28/13 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*68*		*30 - 164*	*11/04/13 07:16*	*11/28/13 01:34*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		67	6.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Acenaphthylene	ND		67	7.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Anthracene	ND		67	6.5	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5

Client Sample ID: HANALEI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-1

Matrix: Solid
Percent Solids: 49.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		67	8.3	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Benzo[a]pyrene	ND		67	6.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Benzo[b]fluoranthene	ND		67	10	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Benzo[g,h,i]perylene	ND		67	6.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Benzo[k]fluoranthene	ND		67	13	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Bis(2-chloroethyl)ether	ND		67	8.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Bis(2-chloroethoxy)methane	ND		330	22	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,2'-oxybis[1-chloropropane]	ND		67	7.2	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Bis(2-ethylhexyl) phthalate	ND		670	54	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Bromophenyl phenyl ether	ND		330	29	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Butyl benzyl phthalate	ND		330	45	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Chloroaniline	ND		330	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2-Chloronaphthalene	ND		67	6.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Chlorophenyl phenyl ether	ND		330	37	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Chrysene	ND		67	7.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Dibenz(a,h)anthracene	ND		67	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Dibenzofuran	ND		330	33	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Di-n-butyl phthalate	ND		330	42	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
3,3'-Dichlorobenzidine	ND		330	35	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Diethyl phthalate	ND		330	36	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Dimethyl phthalate	ND		330	36	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4-Dinitrotoluene	ND		330	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,6-Dinitrotoluene	ND		330	34	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Di-n-octyl phthalate	ND		330	35	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Fluoranthene	ND		67	7.1	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Fluorene	ND		67	8.8	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Hexachlorobenzene	ND		67	7.1	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Hexachlorobutadiene	ND		67	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Hexachlorocyclopentadiene	ND		330	36	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Hexachloroethane	ND		330	24	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Indeno[1,2,3-cd]pyrene	ND		67	6.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Isophorone	ND		330	25	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2-Methylnaphthalene	ND		67	6.0	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Naphthalene	ND		67	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2-Nitroaniline	ND		1700	150	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
3-Nitroaniline	ND		1700	140	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Nitroaniline	ND		1700	130	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Nitrobenzene	ND		670	28	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
N-Nitrosodi-n-propylamine	ND		67	7.8	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
N-Nitrosodiphenylamine	ND		330	31	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Phenanthrene	ND		67	11	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Pyrene	ND		67	6.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Carbazole	ND		67	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Acetophenone	ND		330	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Atrazine	ND		330	32	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Benzaldehyde	**270**	**J ***	330	50	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
1,1'-Biphenyl	ND		330	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Caprolactam	ND		1700	250	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Chloro-3-methylphenol	ND		330	31	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5

Client Sample ID: HANALEI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-1

Matrix: Solid
Percent Solids: 49.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		330	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2-Methylphenol	ND		330	23	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Methylphenol, 3 & 4	ND		330	33	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4-Dichlorophenol	ND		67	6.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4-Dimethylphenol	ND		330	52	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4-Dinitrophenol	ND		1700	400	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4,6-Dinitro-2-methylphenol	ND		1700	130	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2-Nitrophenol	ND		330	37	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
4-Nitrophenol	ND		1700	120	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Pentachlorophenol	ND		330	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
Phenol	ND		67	7.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4,5-Trichlorophenol	ND		330	36	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5
2,4,6-Trichlorophenol	ND		330	50	ug/Kg	☼	11/09/13 03:30	11/19/13 11:32	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*430*	*T J*	*ug/Kg*	☼	*7.18*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*460*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*900*	*T J*	*ug/Kg*	☼	*7.67*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Bicyclo[7.2.0]undec-4-ene, 4,11,11-trime	*470*	*T J N*	*ug/Kg*	☼	*8.77*	*118-65-0*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	*430*	*T J N*	*ug/Kg*	☼	*9.14*	*489-40-7*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*2000*	*T J*	*ug/Kg*	☼	*12.58*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*2400*	*T J*	*ug/Kg*	☼	*14.17*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*1800*	*T J*	*ug/Kg*	☼	*16.01*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown Alkane	*440*	*T J*	*ug/Kg*	☼	*16.43*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown	*640*	*T J*	*ug/Kg*	☼	*17.49*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown Alkane	*950*	*T J*	*ug/Kg*	☼	*17.88*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown Organic Acid	*810*	*T J*	*ug/Kg*	☼	*17.96*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown Alkane	*410*	*T J*	*ug/Kg*	☼	*19.01*		*11/09/13 03:30*	*11/19/13 11:32*	*5*
Unknown PAH	*390*	*T J*	*ug/Kg*	☼	*20.30*		*11/09/13 03:30*	*11/19/13 11:32*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*28 - 108*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
2-Fluorophenol (Surr)	*75*		*28 - 107*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
2,4,6-Tribromophenol (Surr)	*56*		*21 - 116*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
Nitrobenzene-d5 (Surr)	*75*		*27 - 110*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
Phenol-d5 (Surr)	*72*		*30 - 112*	*11/09/13 03:30*	*11/19/13 11:32*	*5*
Terphenyl-d14 (Surr)	*93*		*21 - 130*	*11/09/13 03:30*	*11/19/13 11:32*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		160	11	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
2,4,5-T	ND		40	5.0	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
Silvex (2,4,5-TP)	ND		40	4.2	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
Dalapon	ND		180	14	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
2,4-DB	ND		160	12	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
Dicamba	ND		80	9.6	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
Dichlorprop	ND		160	19	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
Dinoseb	ND		24	9.1	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20
MCPA	ND		16000	3300	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20

Client Sample ID: HANALEI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-1

Matrix: Solid
Percent Solids: 49.8

Method: 8151A - Herbicides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPP	ND		16000	3200	ug/Kg	☼	11/09/13 06:46	11/20/13 17:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*52*		*42 - 140*	*11/09/13 06:46*	*11/20/13 17:03*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		2.0	0.14	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
2,3,7,8-TCDF	ND		2.0	0.17	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,7,8-PeCDD	ND		9.9	0.25	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,7,8-PeCDF	ND		9.9	0.28	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
2,3,4,7,8-PeCDF	ND		9.9	0.33	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,4,7,8-HxCDD	**0.66**	**J**	9.9	0.093	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,6,7,8-HxCDD	**0.33**	**J**	9.9	0.075	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,7,8,9-HxCDD	**0.31**	**J q**	9.9	0.075	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,4,7,8-HxCDF	**0.44**	**J B**	9.9	0.080	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,6,7,8-HxCDF	**0.18**	**J B**	9.9	0.073	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,7,8,9-HxCDF	**0.15**	**J q**	9.9	0.090	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
2,3,4,6,7,8-HxCDF	ND		9.9	0.071	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,4,6,7,8-HpCDD	**3.5**	**J**	9.9	0.18	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,4,6,7,8-HpCDF	**1.4**	**J B**	9.9	0.091	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
1,2,3,4,7,8,9-HpCDF	ND		9.9	0.14	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
OCDD	**34**	**B**	20	0.38	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
OCDF	**2.4**	**J B**	20	0.14	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total TCDD	**0.95**	**J q B**	2.0	0.14	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total TCDF	**0.97**	**J**	2.0	0.17	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total PeCDD	ND		9.9	0.25	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total PeCDF	**0.37**	**J**	9.9	0.30	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total HxCDD	**3.7**	**J q**	9.9	0.081	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total HxCDF	**1.7**	**J q B**	9.9	0.079	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total HpCDD	**7.2**	**J B**	9.9	0.18	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1
Total HpCDF	**2.4**	**J B**	9.9	0.11	pg/g	☼	11/11/13 13:07	11/29/13 21:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*25 - 164*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-2,3,7,8-TCDF	*53*		*24 - 169*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*25 - 181*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,7,8-PeCDF	*56*		*24 - 185*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*21 - 178*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,4,7,8-HxCDD	*61*		*32 - 141*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,6,7,8-HxCDD	*74*		*28 - 130*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,4,7,8-HxCDF	*60*		*26 - 152*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,6,7,8-HxCDF	*66*		*26 - 123*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,7,8,9-HxCDF	*63*		*29 - 147*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-2,3,4,6,7,8-HxCDF	*64*		*28 - 136*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*75*		*23 - 140*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*69*		*28 - 143*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*61*		*26 - 138*	*11/11/13 13:07*	*11/29/13 21:48*	*1*
13C-OCDD	*63*		*17 - 157*	*11/11/13 13:07*	*11/29/13 21:48*	*1*

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-1

Matrix: Solid
Percent Solids: 49.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*84*		*35 - 197*	*11/11/13 13:07*	*11/29/13 21:48*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.079	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
alpha-BHC	ND		0.079	0.0013	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
beta-BHC	ND		0.079	0.0017	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
gamma-BHC (Lindane)	**0.012**	**J B**	0.079	0.0017	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
delta-BHC	ND		0.079	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
cis-Chlordane	**0.0052**	**J q**	0.079	0.0018	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
trans-Chlordane	**0.0080**	**J B q**	0.079	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
oxy-Chlordane	ND		0.079	0.0012	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
2,4'-DDD	ND		0.079	0.0029	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
2,4'-DDE	ND		0.079	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
2,4'-DDT	ND		0.079	0.0039	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
4,4'-DDD	ND		0.079	0.0029	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
4,4'-DDE	ND		0.079	0.0022	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
4,4'-DDT	ND		0.079	0.0044	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Dieldrin	**0.0089**	**J q**	0.079	0.0023	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endosulfan I	ND		0.079	0.0048	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endosulfan II	ND		0.079	0.0068	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endosulfan sulfate	**0.0030**	**J q**	0.079	0.00082	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endrin	ND		0.079	0.0023	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endrin aldehyde	ND		0.079	0.0060	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Endrin ketone	ND		0.079	0.0029	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Heptachlor	**0.00099**	**J B q**	0.079	0.00047	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Heptachlor epoxide	ND		0.079	0.00060	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Hexachlorobenzene	**0.050**	**J B**	0.079	0.00015	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Methoxychlor	ND		0.079	0.0078	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
Mirex	**0.0032**	**J B q**	0.079	0.00025	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
cis-Nonachlor	**0.0065**	**J q**	0.079	0.0026	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1
trans-Nonachlor	**0.013**	**J**	0.079	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 06:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*63*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C6-alpha BHC	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C6-beta BHC	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C6-gamma BHC	*85*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C6-delta BHC	*98*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C10-cis Chlordane	*91*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C10-trans Chlordane	*91*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C10-oxy Chlordane	*87*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-2,4'-DDD	*106*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-4,4'-DDD	*110*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-2,4'-DDE	*101*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-4,4'-DDE	*93*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-2,4'-DDT	*114*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-4,4'-DDT	*114*		*30 - 160*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C12-Dieldrin	*87*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C9-Endosulfan I	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*
13C9-Endosulfan II	*96*		*20 - 180*	*11/11/13 13:01*	*11/19/13 06:18*	*1*

Client Sample ID: HANALEI BAY-1

Lab Sample ID: 320-4779-1
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 49.8

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C9-Endosulfan sulfate	93		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C12-Endrin	87		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C12-Endrin Aldehyde	78		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C11-Endrin Ketone	87		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C10-Heptachlor	97		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C12-Heptachlor epoxide	84		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C6-Hexachlorobenzene	69		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C12-Methoxychlor	105		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C10-Mirex	82		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C10-cis Nonachlor	83		20 - 180	11/11/13 13:01	11/19/13 06:18	1
13C10-trans Nonachlor	90		20 - 180	11/11/13 13:01	11/19/13 06:18	1

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	40	19	ug/Kg	☼	11/11/13 13:01	12/06/13 15:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-alpha BHC	36		20 - 180	11/11/13 13:01	12/06/13 15:05	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.22**	**J**	0.23	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Arsenic	**18**		0.23	0.18	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Barium	**12**		0.12	0.11	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Beryllium	**0.29**		0.12	0.012	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Cadmium	**0.99**		0.12	0.059	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Chromium	**130**		0.23	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Cobalt	**23**		0.12	0.012	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Copper	**26**		0.23	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Lead	**1.9**		0.12	0.070	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Molybdenum	**0.72**		0.23	0.023	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Nickel	**150**		0.23	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Selenium	**0.92**		0.23	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Silver	**0.19**		0.12	0.035	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Thallium	ND		0.12	0.059	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Vanadium	**80**		1.2	0.35	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1
Zinc	**36**		1.2	0.70	mg/Kg	☼	11/18/13 07:00	11/21/13 14:49	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.032**	**J**	0.082	0.018	mg/Kg	☼	11/04/13 10:40	11/04/13 13:54	1

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Ametryn	ND		55	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Atrazine	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-2

Matrix: Solid
Percent Solids: 59.7

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Azinphos-methyl	ND		110	15	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Bolstar	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Bromacil	ND		55	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Butachlor	ND		55	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Chlorpyrifos	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Coumaphos	ND		550	22	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Dichlorvos	ND		110	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Dimethoate	ND		110	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Disulfoton	ND		110	10	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
EPN	ND		110	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Fensulfothion	ND		550	18	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Fenthion	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Methyl parathion	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Metolachlor	ND		55	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Metribuzin	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Malathion	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Ethyl Parathion	ND		55	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Phorate	ND		55	17	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Prometon	ND		55	20	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Prometryn	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Propazine	ND		55	9.0	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Simazine	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Stirophos	ND		55	30	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Sulfotepp	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Thionazin	ND		55	15	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Trichloronate	ND		550	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Tokuthion	ND		55	35	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Ethoprop	ND		55	18	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Ronnel	ND		55	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Terbutryn	ND		55	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Simetryn	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Vernolate	ND		55	27	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Cyanizine	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Cycloate	ND		55	18	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
EPTC	ND		55	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Butylate	ND		55	22	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Molinate	ND		55	37	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1
Pebulate	ND		55	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*66*		*30 - 164*	*11/04/13 07:16*	*11/28/13 02:07*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		56	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Acenaphthylene	ND		56	6.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Anthracene	ND		56	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Benzo[a]anthracene	ND		56	7.0	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Benzo[a]pyrene	ND		56	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Benzo[b]fluoranthene	ND		56	8.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2

Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		56	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Benzo[k]fluoranthene	ND		56	11	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Bis(2-chloroethyl)ether	ND		56	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Bis(2-chloroethoxy)methane	ND		270	18	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,2'-oxybis[1-chloropropane]	ND		56	6.0	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Bis(2-ethylhexyl) phthalate	ND		550	45	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Bromophenyl phenyl ether	ND		270	24	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Butyl benzyl phthalate	ND		270	38	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Chloroaniline	ND		270	22	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Chloronaphthalene	ND		56	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Chlorophenyl phenyl ether	ND		270	31	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Chrysene	ND		56	6.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Dibenz(a,h)anthracene	ND		56	6.2	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Dibenzofuran	ND		270	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Di-n-butyl phthalate	ND		270	35	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
3,3'-Dichlorobenzidine	ND		270	29	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Diethyl phthalate	ND		270	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Dimethyl phthalate	ND		270	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,4-Dinitrotoluene	ND		270	22	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,6-Dinitrotoluene	ND		270	29	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Di-n-octyl phthalate	ND		270	29	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Fluoranthene	ND		56	5.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Fluorene	ND		56	7.3	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Hexachlorobenzene	ND		56	5.9	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Hexachlorobutadiene	ND		56	6.2	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Hexachlorocyclopentadiene	ND		270	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Hexachloroethane	ND		270	20	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Indeno[1,2,3-cd]pyrene	ND		56	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Isophorone	ND		270	21	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Methylnaphthalene	ND		56	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Naphthalene	ND		56	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Nitroaniline	ND		1400	120	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
3-Nitroaniline	ND		1400	110	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Nitroaniline	ND		1400	110	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Nitrobenzene	ND		550	23	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
N-Nitrosodi-n-propylamine	ND		56	6.5	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
N-Nitrosodiphenylamine	ND		270	26	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Phenanthrene	ND		56	8.8	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Pyrene	ND		56	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Carbazole	ND		56	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Acetophenone	ND		270	23	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Atrazine	ND		270	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Benzaldehyde	**220**	**J ***	270	42	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
1,1'-Biphenyl	ND		270	25	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Caprolactam	ND		1400	210	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Chloro-3-methylphenol	ND		270	26	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Chlorophenol	ND		270	23	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Methylphenol	ND		270	19	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Methylphenol, 3 & 4	ND		270	27	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		56	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,4-Dimethylphenol	ND		270	43	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,4-Dinitrophenol	ND		1400	330	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4,6-Dinitro-2-methylphenol	ND		1400	110	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2-Nitrophenol	ND		270	31	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
4-Nitrophenol	ND		1400	100	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Pentachlorophenol	ND		270	25	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
Phenol	ND		56	6.6	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,4,5-Trichlorophenol	ND		270	30	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5
2,4,6-Trichlorophenol	ND		270	42	ug/Kg	☼	11/09/13 03:30	11/19/13 11:58	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*310*	*T J*	*ug/Kg*	☼	*7.18*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*450*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*730*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Bicyclo[7.2.0]undec-4-ene, 4,11,11-trime	*430*	*T J N*	*ug/Kg*	☼	*8.76*	*118-65-0*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*270*	*T J*	*ug/Kg*	☼	*9.10*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown Naphthalene	*370*	*T J*	*ug/Kg*	☼	*9.13*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*220*	*T J*	*ug/Kg*	☼	*9.19*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*280*	*T J*	*ug/Kg*	☼	*16.01*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown Alkane	*350*	*T J*	*ug/Kg*	☼	*16.42*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown Alkane	*370*	*T J*	*ug/Kg*	☼	*17.49*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown Alkane	*460*	*T J*	*ug/Kg*	☼	*17.88*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown	*390*	*T J*	*ug/Kg*	☼	*18.55*		*11/09/13 03:30*	*11/19/13 11:58*	*5*
Unknown Alkane	*500*	*T J*	*ug/Kg*	☼	*19.00*		*11/09/13 03:30*	*11/19/13 11:58*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*28 - 108*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
2-Fluorophenol (Surr)	*65*		*28 - 107*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
2,4,6-Tribromophenol (Surr)	*39*		*21 - 116*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
Nitrobenzene-d5 (Surr)	*63*		*27 - 110*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
Phenol-d5 (Surr)	*58*		*30 - 112*	*11/09/13 03:30*	*11/19/13 11:58*	*5*
Terphenyl-d14 (Surr)	*66*		*21 - 130*	*11/09/13 03:30*	*11/19/13 11:58*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		130	9.2	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
2,4,5-T	ND		33	4.2	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
Silvex (2,4,5-TP)	ND		33	3.5	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
Dalapon	ND		150	12	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
2,4-DB	ND		130	10	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
Dicamba	ND		67	8.0	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
Dichlorprop	ND		130	16	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
Dinoseb	ND		20	7.6	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
MCPA	ND		13000	2800	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20
MCPP	ND		13000	2700	ug/Kg	☼	11/09/13 06:46	11/20/13 17:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*60*		*42 - 140*	*11/09/13 06:46*	*11/20/13 17:28*	*20*

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-2

Matrix: Solid
Percent Solids: 59.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		3.2	0.17	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
2,3,7,8-TCDF	ND		3.2	0.16	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,7,8-PeCDD	ND		16	0.21	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,7,8-PeCDF	ND		16	0.32	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
2,3,4,7,8-PeCDF	ND		16	0.37	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,4,7,8-HxCDD	**0.74**	**J**	16	0.11	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,6,7,8-HxCDD	**0.17**	**J q**	16	0.093	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,7,8,9-HxCDD	**0.36**	**J**	16	0.092	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,4,7,8-HxCDF	**0.54**	**J B**	16	0.079	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,6,7,8-HxCDF	**0.10**	**J q B**	16	0.071	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,7,8,9-HxCDF	ND		16	0.084	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
2,3,4,6,7,8-HxCDF	ND		16	0.070	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,4,6,7,8-HpCDD	**3.1**	**J**	16	0.15	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,4,6,7,8-HpCDF	**5.8**	**J B**	16	0.11	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
1,2,3,4,7,8,9-HpCDF	**0.21**	**J q**	16	0.16	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
OCDD	**30**	**J B**	32	0.45	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
OCDF	**22**	**J B**	32	0.30	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total TCDD	**0.53**	**J q B**	3.2	0.17	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total TCDF	**0.35**	**J q**	3.2	0.16	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total PeCDD	ND		16	0.21	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total PeCDF	**2.3**	**J q**	16	0.35	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total HxCDD	**3.4**	**J q**	16	0.10	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total HxCDF	**1.3**	**J q B**	16	0.076	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total HpCDD	**6.1**	**J B**	16	0.15	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1
Total HpCDF	**7.4**	**J q B**	16	0.13	pg/g	☼	11/11/13 13:07	11/29/13 22:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*87*		*25 - 164*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-2,3,7,8-TCDF	*73*		*24 - 169*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,7,8-PeCDD	*91*		*25 - 181*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*24 - 185*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-2,3,4,7,8-PeCDF	*74*		*21 - 178*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,4,7,8-HxCDD	*81*		*32 - 141*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,6,7,8-HxCDD	*95*		*28 - 130*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,4,7,8-HxCDF	*78*		*26 - 152*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,6,7,8-HxCDF	*85*		*26 - 123*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,7,8,9-HxCDF	*84*		*29 - 147*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-2,3,4,6,7,8-HxCDF	*82*		*28 - 136*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*98*		*23 - 140*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*88*		*28 - 143*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*82*		*26 - 138*	*11/11/13 13:07*	*11/29/13 22:32*	*1*
13C-OCDD	*82*		*17 - 157*	*11/11/13 13:07*	*11/29/13 22:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*84*		*35 - 197*	*11/11/13 13:07*	*11/29/13 22:32*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.13	0.0032	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
alpha-BHC	ND		0.13	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
beta-BHC	ND		0.13	0.0023	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2

Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	**0.013**	**J B**	0.13	0.0022	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
delta-BHC	ND		0.13	0.0030	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
cis-Chlordane	**0.010**	**J**	0.13	0.0029	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
trans-Chlordane	**0.010**	**J B**	0.13	0.0026	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
oxy-Chlordane	ND		0.13	0.0018	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
2,4'-DDD	ND		0.13	0.0038	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
2,4'-DDE	ND		0.13	0.0020	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
2,4'-DDT	ND		0.13	0.0053	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
4,4'-DDD	ND		0.13	0.0039	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
4,4'-DDE	ND		0.13	0.018	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
4,4'-DDT	ND		0.13	0.0064	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Dieldrin	**0.013**	**J**	0.13	0.0031	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endosulfan I	ND		0.13	0.0074	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endosulfan II	ND		0.13	0.0082	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endosulfan sulfate	**0.0029**	**J q**	0.13	0.00099	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endrin	ND		0.13	0.0032	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endrin aldehyde	ND		0.13	0.0042	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Endrin ketone	ND		0.13	0.0034	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Heptachlor	ND		0.13	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Heptachlor epoxide	ND		0.13	0.00079	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Hexachlorobenzene	**0.084**	**J B**	0.13	0.00021	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Methoxychlor	ND		0.13	0.070	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
Mirex	**0.0033**	**J B q**	0.13	0.00028	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
cis-Nonachlor	**0.0073**	**J**	0.13	0.0030	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1
trans-Nonachlor	**0.010**	**J**	0.13	0.0031	ug/Kg	☼	11/11/13 13:01	11/19/13 07:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*45*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C6-alpha BHC	*86*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C6-beta BHC	*97*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C6-gamma BHC	*89*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C6-delta BHC	*90*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-cis Chlordane	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-trans Chlordane	*95*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-oxy Chlordane	*94*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-2,4'-DDD	*109*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-4,4'-DDD	*113*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-2,4'-DDE	*105*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-4,4'-DDE	*96*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-2,4'-DDT	*110*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-4,4'-DDT	*103*		*30 - 160*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-Dieldrin	*88*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C9-Endosulfan I	*97*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C9-Endosulfan II	*99*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C9-Endosulfan sulfate	*92*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-Endrin	*88*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-Endrin Aldehyde	*90*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C11-Endrin Ketone	*88*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-Heptachlor	*110*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-Heptachlor epoxide	*88*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-Hexachlorobenzene	*72*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C12-Methoxychlor	*94*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-Mirex	*81*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-cis Nonachlor	*83*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*
13C10-trans Nonachlor	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 07:19*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	67	35	ug/Kg	☼	11/11/13 13:01	12/06/13 15:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*35*		*20 - 180*	*11/11/13 13:01*	*12/06/13 15:51*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.12**	**J**	0.20	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Arsenic	**16**		0.20	0.15	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Barium	**9.1**		0.098	0.089	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Beryllium	**0.22**		0.098	0.0098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Cadmium	**0.74**		0.098	0.049	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Chromium	**100**		0.20	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Cobalt	**19**		0.098	0.0098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Copper	**20**		0.20	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Lead	**1.4**		0.098	0.059	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Molybdenum	**0.47**		0.20	0.020	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Nickel	**130**		0.20	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Selenium	**0.65**		0.20	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Silver	**0.16**		0.098	0.030	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Thallium	ND		0.098	0.049	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Vanadium	**61**		0.98	0.30	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1
Zinc	**28**		0.98	0.59	mg/Kg	☼	11/18/13 07:00	11/21/13 14:53	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.025**	**J**	0.064	0.014	mg/Kg	☼	11/04/13 10:40	11/04/13 13:56	1

Client Sample ID: ANINI BAY-1

Lab Sample ID: 320-4779-3
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 76.7

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		43	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Ametryn	ND		43	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Atrazine	ND		43	10	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Azinphos-methyl	ND		86	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Bolstar	ND		43	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Bromacil	ND		43	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Butachlor	ND		43	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Chlorpyrifos	ND		43	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Coumaphos	ND		430	17	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1

Client Sample ID: ANINI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-3

Matrix: Solid
Percent Solids: 76.7

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorvos	ND		86	9.0	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Dimethoate	ND		86	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Disulfoton	ND		86	8.1	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
EPN	ND		86	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Fensulfothion	ND		430	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Fenthion	ND		43	9.9	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Methyl parathion	ND		43	9.9	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Metolachlor	ND		43	9.0	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Metribuzin	ND		43	8.2	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Malathion	ND		43	8.3	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Ethyl Parathion	ND		43	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Phorate	ND		43	13	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Prometon	ND		43	16	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Prometryn	ND		43	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Propazine	ND		43	7.0	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Simazine	ND		43	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Stirophos	ND		43	23	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Sulfotepp	ND		43	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Thionazin	ND		43	12	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Trichloronate	ND		430	8.7	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Tokuthion	ND		43	27	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Ethoprop	ND		43	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Ronnel	ND		43	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Terbutryn	ND		43	11	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Simetryn	ND		43	10	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Vernolate	ND		43	21	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Cyanizine	ND		43	10	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Cycloate	ND		43	14	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
EPTC	ND		43	8.3	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Butylate	ND		43	17	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Molinate	ND		43	29	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1
Pebulate	ND		43	9.9	ug/Kg	☼	11/04/13 07:16	11/28/13 02:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*78*		*30 - 164*	*11/04/13 07:16*	*11/28/13 02:40*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		44	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Acenaphthylene	ND		44	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Anthracene	ND		44	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzo[a]anthracene	ND		44	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzo[a]pyrene	ND		44	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzo[b]fluoranthene	ND		44	6.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzo[g,h,i]perylene	ND		44	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzo[k]fluoranthene	ND		44	8.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Bis(2-chloroethyl)ether	ND		44	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Bis(2-chloroethoxy)methane	ND		220	14	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,2'-oxybis[1-chloropropane]	ND		44	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Bis(2-ethylhexyl) phthalate	ND		430	35	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5

Client Sample ID: ANINI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-3

Matrix: Solid
Percent Solids: 76.7

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		220	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Butyl benzyl phthalate	ND		220	30	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4-Chloroaniline	ND		220	17	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Chloronaphthalene	ND		44	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4-Chlorophenyl phenyl ether	ND		220	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Chrysene	ND		44	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Dibenz(a,h)anthracene	ND		44	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Dibenzofuran	ND		220	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Di-n-butyl phthalate	ND		220	27	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
3,3'-Dichlorobenzidine	ND		220	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Diethyl phthalate	ND		220	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Dimethyl phthalate	ND		220	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4-Dinitrotoluene	ND		220	18	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,6-Dinitrotoluene	ND		220	22	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Di-n-octyl phthalate	ND		220	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Fluoranthene	ND		44	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Fluorene	ND		44	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Hexachlorobenzene	ND		44	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Hexachlorobutadiene	ND		44	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Hexachlorocyclopentadiene	ND		220	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Hexachloroethane	ND		220	16	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Indeno[1,2,3-cd]pyrene	ND		44	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Isophorone	ND		220	16	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Methylnaphthalene	ND		44	3.9	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Naphthalene	ND		44	3.7	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Nitroaniline	ND		1100	97	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
3-Nitroaniline	ND		1100	90	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4-Nitroaniline	ND		1100	88	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Nitrobenzene	ND		430	18	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
N-Nitrosodi-n-propylamine	ND		44	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
N-Nitrosodiphenylamine	ND		220	20	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Phenanthrene	ND		44	6.9	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Pyrene	ND		44	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Carbazole	ND		44	4.0	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Acetophenone	ND		220	18	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Atrazine	ND		220	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Benzaldehyde	ND	*	220	33	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
1,1'-Biphenyl	ND		220	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Caprolactam	ND		1100	160	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4-Chloro-3-methylphenol	ND		220	20	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Chlorophenol	ND		220	18	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Methylphenol	ND		220	15	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Methylphenol, 3 & 4	ND		220	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4-Dichlorophenol	ND		44	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4-Dimethylphenol	ND		220	34	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4-Dinitrophenol	ND		1100	260	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4,6-Dinitro-2-methylphenol	ND		1100	87	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2-Nitrophenol	ND		220	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
4-Nitrophenol	ND		1100	79	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5

Client Sample ID: ANINI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-3

Matrix: Solid
Percent Solids: 76.7

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		220	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
Phenol	ND		44	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4,5-Trichlorophenol	ND		220	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5
2,4,6-Trichlorophenol	ND		220	33	ug/Kg	☼	11/09/13 03:30	11/19/13 12:25	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*150*	*T J*	*ug/Kg*	☼	*7.19*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown	*300*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown	*470*	*T J*	*ug/Kg*	☼	*7.67*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown	*900*	*T J*	*ug/Kg*	☼	*15.76*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown	*88*	*T J*	*ug/Kg*	☼	*17.65*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown Organic Acid	*250*	*T J*	*ug/Kg*	☼	*18.37*		*11/09/13 03:30*	*11/19/13 12:25*	*5*
Unknown	*100*	*T J*	*ug/Kg*	☼	*19.14*		*11/09/13 03:30*	*11/19/13 12:25*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*28 - 108*	*11/09/13 03:30*	*11/19/13 12:25*	*5*
2-Fluorophenol (Surr)	*71*		*28 - 107*	*11/09/13 03:30*	*11/19/13 12:25*	*5*
2,4,6-Tribromophenol (Surr)	*27*		*21 - 116*	*11/09/13 03:30*	*11/19/13 12:25*	*5*
Nitrobenzene-d5 (Surr)	*75*		*27 - 110*	*11/09/13 03:30*	*11/19/13 12:25*	*5*
Phenol-d5 (Surr)	*62*		*30 - 112*	*11/09/13 03:30*	*11/19/13 12:25*	*5*
Terphenyl-d14 (Surr)	*67*		*21 - 130*	*11/09/13 03:30*	*11/19/13 12:25*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		100	7.1	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
2,4,5-T	ND		26	3.3	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
Silvex (2,4,5-TP)	ND		26	2.7	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
Dalapon	ND		120	9.2	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
2,4-DB	ND		100	8.0	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
Dicamba	ND		52	6.2	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
Dichlorprop	ND		100	12	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
Dinoseb	ND		16	5.9	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
MCPA	ND		10000	2100	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20
MCPP	ND		10000	2100	ug/Kg	☼	11/09/13 06:46	11/20/13 17:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*56*		*42 - 140*	*11/09/13 06:46*	*11/20/13 17:52*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.3	0.054	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
2,3,7,8-TCDF	ND		1.3	0.064	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,7,8-PeCDD	ND		6.5	0.11	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,7,8-PeCDF	ND		6.5	0.11	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
2,3,4,7,8-PeCDF	ND		6.5	0.13	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,4,7,8-HxCDD	ND		6.5	0.047	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,6,7,8-HxCDD	ND		6.5	0.038	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,7,8,9-HxCDD	ND		6.5	0.038	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,4,7,8-HxCDF	**0.45**	**J B**	6.5	0.037	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,6,7,8-HxCDF	**0.071**	**J q B**	6.5	0.032	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,7,8,9-HxCDF	ND		6.5	0.039	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1

Client Sample ID: ANINI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-3

Matrix: Solid
Percent Solids: 76.7

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6,7,8-HxCDF	ND		6.5	0.031	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,4,6,7,8-HpCDD	**0.80**	**J**	6.5	0.063	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,4,6,7,8-HpCDF	**1.1**	**J B**	6.5	0.033	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
1,2,3,4,7,8,9-HpCDF	ND		6.5	0.049	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
OCDD	**7.9**	**J B**	13	0.098	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
OCDF	**0.72**	**J B**	13	0.059	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total TCDD	**0.11**	**J q B**	1.3	0.054	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total TCDF	ND		1.3	0.064	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total PeCDD	ND		6.5	0.11	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total PeCDF	ND		6.5	0.13	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total HxCDD	**0.62**	**J q**	6.5	0.041	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total HxCDF	**0.78**	**J q B**	6.5	0.035	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total HpCDD	**2.3**	**J B**	6.5	0.063	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1
Total HpCDF	**1.4**	**J B**	6.5	0.041	pg/g	☼	11/11/13 13:07	11/29/13 23:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*87*		*25 - 164*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-2,3,7,8-TCDF	*72*		*24 - 169*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,7,8-PeCDD	*89*		*25 - 181*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*24 - 185*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*21 - 178*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,4,7,8-HxCDD	*81*		*32 - 141*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,6,7,8-HxCDD	*97*		*28 - 130*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,4,7,8-HxCDF	*82*		*26 - 152*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,6,7,8-HxCDF	*85*		*26 - 123*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,7,8,9-HxCDF	*83*		*29 - 147*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-2,3,4,6,7,8-HxCDF	*85*		*28 - 136*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*98*		*23 - 140*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*89*		*28 - 143*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*81*		*26 - 138*	*11/11/13 13:07*	*11/29/13 23:15*	*1*
13C-OCDD	*82*		*17 - 157*	*11/11/13 13:07*	*11/29/13 23:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*86*		*35 - 197*	*11/11/13 13:07*	*11/29/13 23:15*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.052	0.00077	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
alpha-BHC	ND		0.052	0.00067	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
beta-BHC	ND		0.052	0.00081	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
gamma-BHC (Lindane)	**0.0063**	**J B**	0.052	0.00089	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
delta-BHC	ND		0.052	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
cis-Chlordane	ND		0.052	0.0014	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
trans-Chlordane	ND		0.052	0.00090	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
oxy-Chlordane	ND		0.052	0.00056	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
2,4'-DDD	ND		0.052	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
2,4'-DDE	ND		0.052	0.00071	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
2,4'-DDT	ND		0.052	0.0021	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
4,4'-DDD	ND		0.052	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
4,4'-DDE	**0.0045**	**J**	0.052	0.0012	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
4,4'-DDT	ND		0.052	0.0025	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1

Client Sample ID: ANINI BAY-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-3

Matrix: Solid
Percent Solids: 76.7

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	**0.0065**	**J**	0.052	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endosulfan I	ND		0.052	0.0026	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endosulfan II	ND		0.052	0.0038	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endosulfan sulfate	**0.00085**	**J q**	0.052	0.00043	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endrin	ND		0.052	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endrin aldehyde	ND		0.052	0.0027	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Endrin ketone	ND		0.052	0.0012	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Heptachlor	ND		0.052	0.00020	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Heptachlor epoxide	ND		0.052	0.00030	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Hexachlorobenzene	**0.031**	**J B**	0.052	0.000080	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Methoxychlor	ND		0.052	0.0041	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
Mirex	**0.0010**	**J B q**	0.052	0.000094	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
cis-Nonachlor	ND		0.052	0.0013	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1
trans-Nonachlor	ND		0.052	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 08:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*73*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C6-alpha BHC	*73*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C6-beta BHC	*87*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C6-gamma BHC	*76*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C6-delta BHC	*80*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-cis Chlordane	*83*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-trans Chlordane	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-oxy Chlordane	*83*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-2,4'-DDD	*99*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-4,4'-DDD	*107*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-2,4'-DDE	*92*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-4,4'-DDE	*83*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-2,4'-DDT	*102*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-4,4'-DDT	*97*		*30 - 160*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-Dieldrin	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C9-Endosulfan I	*86*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C9-Endosulfan II	*89*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C9-Endosulfan sulfate	*82*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-Endrin	*78*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-Endrin Aldehyde	*68*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C11-Endrin Ketone	*88*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-Heptachlor	*95*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-Heptachlor epoxide	*78*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C6-Hexachlorobenzene	*63*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C12-Methoxychlor	*99*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-Mirex	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-cis Nonachlor	*75*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*
13C10-trans Nonachlor	*81*		*20 - 180*	*11/11/13 13:01*	*11/19/13 08:20*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	26	14	ug/Kg	☼	11/11/13 13:01	12/06/13 16:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*30*		*20 - 180*	*11/11/13 13:01*	*12/06/13 16:37*	*1*

Client Sample ID: ANINI BAY-1

Lab Sample ID: 320-4779-3
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 76.7

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.22	J	0.26	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Arsenic	9.8		0.26	0.19	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Barium	13		0.13	0.12	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Beryllium	0.064	J	0.13	0.013	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Cadmium	0.34		0.13	0.065	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Chromium	44		0.26	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Cobalt	4.7		0.13	0.013	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Copper	5.1		0.26	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Lead	0.78		0.13	0.077	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Molybdenum	0.59		0.26	0.026	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Nickel	18		0.26	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Selenium	0.73		0.26	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Silver	0.074	J	0.13	0.039	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Thallium	ND		0.13	0.065	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Vanadium	45		1.3	0.39	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1
Zinc	9.9		1.3	0.77	mg/Kg	☼	11/18/13 07:00	11/21/13 14:56	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.050	0.011	mg/Kg	☼	11/04/13 10:40	11/04/13 13:58	1

Client Sample ID: ANINI BAY-2

Lab Sample ID: 320-4779-4
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.1

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Ametryn	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Atrazine	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Azinphos-methyl	ND		91	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Bolstar	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Bromacil	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Butachlor	ND		45	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Chlorpyrifos	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Coumaphos	ND		450	18	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Dichlorvos	ND		91	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Dimethoate	ND		91	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Disulfoton	ND		91	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
EPN	ND		91	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Fensulfothion	ND		450	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Fenthion	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Methyl parathion	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Metolachlor	ND		45	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Metribuzin	ND		45	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Malathion	ND		45	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Ethyl Parathion	ND		45	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Phorate	ND		45	14	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Prometon	ND		45	16	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Prometryn	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1

Client Sample ID: ANINI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-4

Matrix: Solid
Percent Solids: 72.1

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Propazine	ND		45	7.4	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Simazine	ND		45	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Stirophos	ND		45	25	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Sulfotepp	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Thionazin	ND		45	13	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Trichloronate	ND		450	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Tokuthion	ND		45	29	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Ethoprop	ND		45	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Ronnel	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Terbutryn	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Simetryn	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Vernolate	ND		45	22	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Cyanizine	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Cycloate	ND		45	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
EPTC	ND		45	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Butylate	ND		45	18	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Molinate	ND		45	30	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1
Pebulate	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*62*		*30 - 164*	*11/04/13 07:16*	*11/28/13 03:14*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		46	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Acenaphthylene	ND		46	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Anthracene	ND		46	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzo[a]anthracene	ND		46	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzo[a]pyrene	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzo[b]fluoranthene	ND		46	7.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzo[g,h,i]perylene	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzo[k]fluoranthene	ND		46	9.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Bis(2-chloroethyl)ether	ND		46	6.2	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Bis(2-chloroethoxy)methane	ND		230	15	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,2'-oxybis[1-chloropropane]	ND		46	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Bis(2-ethylhexyl) phthalate	ND		460	37	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Bromophenyl phenyl ether	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Butyl benzyl phthalate	ND		230	32	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Chloroaniline	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Chloronaphthalene	ND		46	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Chlorophenyl phenyl ether	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Chrysene	ND		46	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Dibenz(a,h)anthracene	ND		46	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Dibenzofuran	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Di-n-butyl phthalate	ND		230	29	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
3,3'-Dichlorobenzidine	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Diethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Dimethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4-Dinitrotoluene	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,6-Dinitrotoluene	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5

Client Sample ID: ANINI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-4

Matrix: Solid
Percent Solids: 72.1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Fluoranthene	ND		46	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Fluorene	ND		46	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Hexachlorobenzene	ND		46	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Hexachlorobutadiene	ND		46	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Hexachlorocyclopentadiene	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Hexachloroethane	ND		230	17	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Indeno[1,2,3-cd]pyrene	ND		46	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Isophorone	ND		230	17	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Methylnaphthalene	ND		46	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Naphthalene	ND		46	4.0	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Nitroaniline	ND		1200	100	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
3-Nitroaniline	ND		1200	95	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Nitroaniline	ND		1200	94	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Nitrobenzene	ND		460	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
N-Nitrosodi-n-propylamine	ND		46	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
N-Nitrosodiphenylamine	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Phenanthrene	ND		46	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Pyrene	ND		46	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Carbazole	ND		46	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Acetophenone	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Atrazine	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Benzaldehyde	ND	*	230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
1,1'-Biphenyl	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Caprolactam	ND		1200	170	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Chloro-3-methylphenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Chlorophenol	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Methylphenol	ND		230	16	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Methylphenol, 3 & 4	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4-Dichlorophenol	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4-Dimethylphenol	ND		230	36	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4-Dinitrophenol	ND		1200	280	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4,6-Dinitro-2-methylphenol	ND		1200	93	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2-Nitrophenol	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
4-Nitrophenol	ND		1200	84	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Pentachlorophenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
Phenol	ND		46	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4,5-Trichlorophenol	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5
2,4,6-Trichlorophenol	ND		230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 12:51	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*200*	*T J*	*ug/Kg*	☼	*7.18*		*11/09/13 03:30*	*11/19/13 12:51*	*5*
Unknown	*360*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 12:51*	*5*
Unknown	*540*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 12:51*	*5*
Unknown Alkane	*100*	*T J*	*ug/Kg*	☼	*17.88*		*11/09/13 03:30*	*11/19/13 12:51*	*5*
Unknown Alkane	*110*	*T J*	*ug/Kg*	☼	*18.36*		*11/09/13 03:30*	*11/19/13 12:51*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*28 - 108*	*11/09/13 03:30*	*11/19/13 12:51*	*5*
2-Fluorophenol (Surr)	*71*		*28 - 107*	*11/09/13 03:30*	*11/19/13 12:51*	*5*

Client Sample ID: ANINI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-4

Matrix: Solid
Percent Solids: 72.1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*35*		*21 - 116*	*11/09/13 03:30*	*11/19/13 12:51*	*5*
Nitrobenzene-d5 (Surr)	*72*		*27 - 110*	*11/09/13 03:30*	*11/19/13 12:51*	*5*
Phenol-d5 (Surr)	*65*		*30 - 112*	*11/09/13 03:30*	*11/19/13 12:51*	*5*
Terphenyl-d14 (Surr)	*66*		*21 - 130*	*11/09/13 03:30*	*11/19/13 12:51*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		110	7.6	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
2,4,5-T	ND		28	3.5	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
Silvex (2,4,5-TP)	ND		28	2.9	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
Dalapon	ND		120	9.8	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
2,4-DB	ND		110	8.5	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
Dicamba	ND		55	6.6	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
Dichlorprop	ND		110	13	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
Dinoseb	ND		17	6.3	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
MCPA	ND		11000	2300	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20
MCPP	ND		11000	2200	ug/Kg	☼	11/09/13 06:46	11/20/13 18:16	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*63*		*42 - 140*	*11/09/13 06:46*	*11/20/13 18:16*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4	0.071	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
2,3,7,8-TCDF	ND		1.4	0.067	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,7,8-PeCDD	ND		6.9	0.12	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,7,8-PeCDF	ND		6.9	0.15	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
2,3,4,7,8-PeCDF	ND		6.9	0.18	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,4,7,8-HxCDD	ND		6.9	0.054	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,6,7,8-HxCDD	ND		6.9	0.042	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,7,8,9-HxCDD	**0.092**	**J q**	6.9	0.043	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,4,7,8-HxCDF	**0.083**	**J q B**	6.9	0.044	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,6,7,8-HxCDF	ND		6.9	0.039	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,7,8,9-HxCDF	ND		6.9	0.049	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
2,3,4,6,7,8-HxCDF	ND		6.9	0.038	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,4,6,7,8-HpCDD	**1.5**	**J**	6.9	0.092	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,4,6,7,8-HpCDF	**0.42**	**J B**	6.9	0.035	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
1,2,3,4,7,8,9-HpCDF	ND		6.9	0.052	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
OCDD	**17**	**B**	14	0.22	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
OCDF	**0.58**	**J B**	14	0.068	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total TCDD	ND		1.4	0.071	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total TCDF	ND		1.4	0.067	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total PeCDD	ND		6.9	0.12	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total PeCDF	ND		6.9	0.18	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total HxCDD	**1.4**	**J q**	6.9	0.046	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total HxCDF	**0.28**	**J q B**	6.9	0.042	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total HpCDD	**4.6**	**J B**	6.9	0.092	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1
Total HpCDF	**0.80**	**J q B**	6.9	0.044	pg/g	☼	11/11/13 13:07	11/29/13 23:58	1

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI BAY-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-4

Matrix: Solid
Percent Solids: 72.1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	78		25 - 164	11/11/13 13:07	11/29/13 23:58	1
13C-2,3,7,8-TCDF	65		24 - 169	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,7,8-PeCDD	79		25 - 181	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,7,8-PeCDF	67		24 - 185	11/11/13 13:07	11/29/13 23:58	1
13C-2,3,4,7,8-PeCDF	65		21 - 178	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,4,7,8-HxCDD	71		32 - 141	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,6,7,8-HxCDD	90		28 - 130	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,4,7,8-HxCDF	74		26 - 152	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,6,7,8-HxCDF	77		26 - 123	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,7,8,9-HxCDF	75		29 - 147	11/11/13 13:07	11/29/13 23:58	1
13C-2,3,4,6,7,8-HxCDF	77		28 - 136	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,4,6,7,8-HpCDD	87		23 - 140	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,4,6,7,8-HpCDF	80		28 - 143	11/11/13 13:07	11/29/13 23:58	1
13C-1,2,3,4,7,8,9-HpCDF	72		26 - 138	11/11/13 13:07	11/29/13 23:58	1
13C-OCDD	74		17 - 157	11/11/13 13:07	11/29/13 23:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	86		35 - 197	11/11/13 13:07	11/29/13 23:58	1

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.055	0.00064	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
alpha-BHC	ND		0.055	0.00064	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
beta-BHC	ND		0.055	0.00080	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
gamma-BHC (Lindane)	**0.0050**	**J B**	0.055	0.00086	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
delta-BHC	ND		0.055	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
cis-Chlordane	ND		0.055	0.00080	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
trans-Chlordane	**0.0022**	**J B**	0.055	0.00069	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
oxy-Chlordane	ND		0.055	0.00048	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
2,4'-DDD	ND		0.055	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
2,4'-DDE	ND		0.055	0.00063	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
2,4'-DDT	ND		0.055	0.0021	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
4,4'-DDD	ND		0.055	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
4,4'-DDE	**0.0071**	**J**	0.055	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
4,4'-DDT	ND		0.055	0.0027	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Dieldrin	ND		0.055	0.0040	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endosulfan I	ND		0.055	0.0020	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endosulfan II	ND		0.055	0.0028	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endosulfan sulfate	**0.00078**	**J q**	0.055	0.00032	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endrin	ND		0.055	0.0013	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endrin aldehyde	ND		0.055	0.0022	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Endrin ketone	ND		0.055	0.0012	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Heptachlor	ND		0.055	0.00020	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Heptachlor epoxide	ND		0.055	0.00026	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Hexachlorobenzene	**0.036**	**J B**	0.055	0.000071	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Methoxychlor	ND		0.055	0.0041	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
Mirex	**0.00096**	**J B q**	0.055	0.00011	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
cis-Nonachlor	ND		0.055	0.00098	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1
trans-Nonachlor	ND		0.055	0.00087	ug/Kg	☼	11/11/13 13:01	11/19/13 09:21	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C12-Aldrin	71		20 - 180	11/11/13 13:01	11/19/13 09:21	1

Client Sample ID: ANINI BAY-2

Lab Sample ID: 320-4779-4

Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.1

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-alpha BHC	83		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C6-beta BHC	93		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C6-gamma BHC	86		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C6-delta BHC	88		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-cis Chlordane	89		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-trans Chlordane	91		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-oxy Chlordane	89		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C12-2,4'-DDD	102		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-4,4'-DDD	106		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-2,4'-DDE	98		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-4,4'-DDE	90		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-2,4'-DDT	101		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-4,4'-DDT	92		30 - 160	11/11/13 13:01	11/19/13 09:21	1
13C12-Dieldrin	85		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C9-Endosulfan I	93		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C9-Endosulfan II	96		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C9-Endosulfan sulfate	89		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C12-Endrin	84		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C12-Endrin Aldehyde	74		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C11-Endrin Ketone	86		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-Heptachlor	104		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C12-Heptachlor epoxide	85		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C6-Hexachlorobenzene	71		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C12-Methoxychlor	89		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-Mirex	79		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-cis Nonachlor	81		20 - 180	11/11/13 13:01	11/19/13 09:21	1
13C10-trans Nonachlor	87		20 - 180	11/11/13 13:01	11/19/13 09:21	1

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	28	14	ug/Kg	☼	11/11/13 13:01	12/06/13 17:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-alpha BHC	34		20 - 180	11/11/13 13:01	12/06/13 17:23	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.4	0.68	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Arsenic	**12**		1.4	1.0	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Barium	**9.7**		0.68	0.61	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Beryllium	**0.10**	**J**	0.68	0.068	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Cadmium	ND		0.68	0.34	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Chromium	**43**		1.4	0.68	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Cobalt	**4.9**		0.68	0.068	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Copper	**5.2**		1.4	0.68	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Lead	**0.75**		0.68	0.41	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Molybdenum	**0.46**	**J**	1.4	0.14	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Nickel	**28**		1.4	0.68	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Selenium	**1.8**		1.4	0.68	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Silver	ND		0.68	0.20	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Thallium	ND		0.68	0.34	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5

Client Sample ID: ANINI BAY-2

Lab Sample ID: 320-4779-4
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.1

Method: 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	41		6.8	2.0	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5
Zinc	13		6.8	4.1	mg/Kg	☼	11/18/13 07:00	11/21/13 16:45	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	J	0.055	0.012	mg/Kg	☼	11/04/13 10:40	11/04/13 13:59	1

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.5

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Ametryn	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Atrazine	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Azinphos-methyl	ND		91	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Bolstar	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Bromacil	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Butachlor	ND		45	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Chlorpyrifos	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Coumaphos	ND		450	18	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Dichlorvos	ND		91	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Dimethoate	ND		91	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Disulfoton	ND		91	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
EPN	ND		91	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Fensulfothion	ND		450	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Fenthion	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Methyl parathion	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Metolachlor	ND		45	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Metribuzin	ND		45	8.7	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Malathion	ND		45	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Ethyl Parathion	ND		45	12	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Phorate	ND		45	14	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Prometon	ND		45	16	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Prometryn	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Propazine	ND		45	7.4	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Simazine	ND		45	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Stirophos	ND		45	25	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Sulfotepp	ND		45	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Thionazin	ND		45	13	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Trichloronate	ND		450	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Tokuthion	ND		45	29	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Ethoprop	ND		45	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Ronnel	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Terbutryn	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Simetryn	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Vernolate	ND		45	22	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Cyanizine	ND		45	11	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Cycloate	ND		45	15	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.5

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		45	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Butylate	ND		45	18	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Molinate	ND		45	30	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1
Pebulate	ND		45	10	ug/Kg	☼	11/04/13 07:16	11/28/13 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*71*		*30 - 164*	*11/04/13 07:16*	*11/28/13 03:47*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		46	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Acenaphthylene	ND		46	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Anthracene	ND		46	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzo[a]anthracene	ND		46	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzo[a]pyrene	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzo[b]fluoranthene	ND		46	7.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzo[g,h,i]perylene	ND		46	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzo[k]fluoranthene	ND		46	9.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Bis(2-chloroethyl)ether	ND		46	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Bis(2-chloroethoxy)methane	ND		230	15	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,2'-oxybis[1-chloropropane]	ND		46	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Bis(2-ethylhexyl) phthalate	ND		460	37	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Bromophenyl phenyl ether	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Butyl benzyl phthalate	ND		230	31	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Chloroaniline	ND		230	18	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Chloronaphthalene	ND		46	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Chlorophenyl phenyl ether	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Chrysene	ND		46	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Dibenz(a,h)anthracene	ND		46	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Dibenzofuran	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Di-n-butyl phthalate	ND		230	29	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
3,3'-Dichlorobenzidine	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Diethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Dimethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4-Dinitrotoluene	ND		230	18	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,6-Dinitrotoluene	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Di-n-octyl phthalate	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Fluoranthene	ND		46	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Fluorene	ND		46	6.0	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Hexachlorobenzene	ND		46	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Hexachlorobutadiene	ND		46	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Hexachlorocyclopentadiene	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Hexachloroethane	ND		230	16	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Indeno[1,2,3-cd]pyrene	ND		46	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Isophorone	ND		230	17	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Methylnaphthalene	ND		46	4.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Naphthalene	ND		46	3.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Nitroaniline	ND		1200	100	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
3-Nitroaniline	ND		1200	94	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Nitroaniline	ND		1200	92	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Matrix: Solid
Percent Solids: 72.5

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		460	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
N-Nitrosodi-n-propylamine	ND		46	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
N-Nitrosodiphenylamine	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Phenanthrene	ND		46	7.3	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Pyrene	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Carbazole	ND		46	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Acetophenone	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Atrazine	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Benzaldehyde	ND	*	230	34	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
1,1'-Biphenyl	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Caprolactam	ND		1200	170	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Chloro-3-methylphenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Chlorophenol	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Methylphenol	ND		230	16	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Methylphenol, 3 & 4	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4-Dichlorophenol	ND		46	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4-Dimethylphenol	ND		230	36	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4-Dinitrophenol	ND		1200	270	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4,6-Dinitro-2-methylphenol	ND		1200	92	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2-Nitrophenol	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
4-Nitrophenol	ND		1200	83	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Pentachlorophenol	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
Phenol	ND		46	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4,5-Trichlorophenol	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5
2,4,6-Trichlorophenol	ND		230	34	ug/Kg	☼	11/09/13 03:30	11/19/13 13:18	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*320*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*530*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*970*	*T J*	*ug/Kg*	☼	*10.63*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*360*	*T B J*	*ug/Kg*	☼	*11.28*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*3000*	*T J*	*ug/Kg*	☼	*11.84*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*2600*	*T B J*	*ug/Kg*	☼	*12.58*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*3200*	*T B J*	*ug/Kg*	☼	*13.19*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*730*	*T B J*	*ug/Kg*	☼	*13.74*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*3300*	*T B J*	*ug/Kg*	☼	*14.16*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*1100*	*T B J*	*ug/Kg*	☼	*14.84*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*490*	*T B J*	*ug/Kg*	☼	*15.53*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*2300*	*T B J*	*ug/Kg*	☼	*16.01*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*410*	*T B J*	*ug/Kg*	☼	*17.47*		*11/09/13 03:30*	*11/19/13 13:18*	*5*
Unknown	*2400*	*T B J*	*ug/Kg*	☼	*17.95*		*11/09/13 03:30*	*11/19/13 13:18*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*28 - 108*	*11/09/13 03:30*	*11/19/13 13:18*	*5*
2-Fluorophenol (Surr)	*72*		*28 - 107*	*11/09/13 03:30*	*11/19/13 13:18*	*5*
2,4,6-Tribromophenol (Surr)	*31*		*21 - 116*	*11/09/13 03:30*	*11/19/13 13:18*	*5*
Nitrobenzene-d5 (Surr)	*72*		*27 - 110*	*11/09/13 03:30*	*11/19/13 13:18*	*5*
Phenol-d5 (Surr)	*68*		*30 - 112*	*11/09/13 03:30*	*11/19/13 13:18*	*5*
Terphenyl-d14 (Surr)	*79*		*21 - 130*	*11/09/13 03:30*	*11/19/13 13:18*	*5*

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: SEALODGE REEF-1

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-5

Matrix: Solid
Percent Solids: 72.5

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		110	7.5	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
2,4,5-T	ND		28	3.5	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
Silvex (2,4,5-TP)	ND		28	2.9	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
Dalapon	ND		120	9.8	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
2,4-DB	ND		110	8.4	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
Dicamba	ND		55	6.6	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
Dichlorprop	ND		110	13	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
Dinoseb	ND		17	6.3	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
MCPA	ND		11000	2300	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20
MCPP	ND		11000	2200	ug/Kg	☼	11/09/13 06:46	11/20/13 19:53	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*52*		*42 - 140*	*11/09/13 06:46*	*11/20/13 19:53*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.3	0.053	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
2,3,7,8-TCDF	ND		1.3	0.068	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,7,8-PeCDD	ND		6.7	0.12	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,7,8-PeCDF	ND		6.7	0.13	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
2,3,4,7,8-PeCDF	ND		6.7	0.15	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,4,7,8-HxCDD	ND		6.7	0.047	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,6,7,8-HxCDD	ND		6.7	0.037	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,7,8,9-HxCDD	ND		6.7	0.037	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,4,7,8-HxCDF	**0.21**	**J B**	6.7	0.038	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,6,7,8-HxCDF	ND		6.7	0.045	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,7,8,9-HxCDF	ND		6.7	0.045	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
2,3,4,6,7,8-HxCDF	ND		6.7	0.034	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,4,6,7,8-HpCDD	**0.31**	**J q**	6.7	0.049	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,4,6,7,8-HpCDF	**0.58**	**J B**	6.7	0.036	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
1,2,3,4,7,8,9-HpCDF	ND		6.7	0.051	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
OCDD	**3.6**	**J B**	13	0.086	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
OCDF	**0.78**	**J B**	13	0.087	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total TCDD	**0.14**	**J B**	1.3	0.053	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total TCDF	ND		1.3	0.068	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total PeCDD	ND		6.7	0.12	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total PeCDF	ND		6.7	0.15	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total HxCDD	**0.080**	**J q**	6.7	0.040	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total HxCDF	**0.33**	**J q B**	6.7	0.040	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total HpCDD	**0.88**	**J q B**	6.7	0.049	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1
Total HpCDF	**0.79**	**J B**	6.7	0.044	pg/g	☼	11/11/13 13:07	11/30/13 00:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*81*		*25 - 164*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-2,3,7,8-TCDF	*66*		*24 - 169*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-1,2,3,7,8-PeCDD	*82*		*25 - 181*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*24 - 185*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-2,3,4,7,8-PeCDF	*68*		*21 - 178*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-1,2,3,4,7,8-HxCDD	*75*		*32 - 141*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-1,2,3,6,7,8-HxCDD	*92*		*28 - 130*	*11/11/13 13:07*	*11/30/13 00:41*	*1*
13C-1,2,3,4,7,8-HxCDF	*73*		*26 - 152*	*11/11/13 13:07*	*11/30/13 00:41*	*1*

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5

Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.5

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	83		26 - 123	11/11/13 13:07	11/30/13 00:41	1
13C-1,2,3,7,8,9-HxCDF	76		29 - 147	11/11/13 13:07	11/30/13 00:41	1
13C-2,3,4,6,7,8-HxCDF	80		28 - 136	11/11/13 13:07	11/30/13 00:41	1
13C-1,2,3,4,6,7,8-HpCDD	89		23 - 140	11/11/13 13:07	11/30/13 00:41	1
13C-1,2,3,4,6,7,8-HpCDF	82		28 - 143	11/11/13 13:07	11/30/13 00:41	1
13C-1,2,3,4,7,8,9-HpCDF	76		26 - 138	11/11/13 13:07	11/30/13 00:41	1
13C-OCDD	75		17 - 157	11/11/13 13:07	11/30/13 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	84		35 - 197	11/11/13 13:07	11/30/13 00:41	1

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.054	0.00048	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
alpha-BHC	ND		0.054	0.00061	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
beta-BHC	ND		0.054	0.00074	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
gamma-BHC (Lindane)	**0.0045**	**J B**	0.054	0.00076	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
delta-BHC	ND		0.054	0.00091	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
cis-Chlordane	ND		0.054	0.00064	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
trans-Chlordane	**0.0015**	**J B q**	0.054	0.00057	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
oxy-Chlordane	ND		0.054	0.00052	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
2,4'-DDD	ND		0.054	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
2,4'-DDE	ND		0.054	0.00057	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
2,4'-DDT	ND		0.054	0.0014	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
4,4'-DDD	ND		0.054	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
4,4'-DDE	ND		0.054	0.00082	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
4,4'-DDT	ND		0.054	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Dieldrin	**0.0043**	**J**	0.054	0.0010	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endosulfan I	ND		0.054	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endosulfan II	ND		0.054	0.0024	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endosulfan sulfate	ND		0.054	0.00028	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endrin	ND		0.054	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endrin aldehyde	ND		0.054	0.0018	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Endrin ketone	ND		0.054	0.00096	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Heptachlor	**0.00060**	**J B q**	0.054	0.00017	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Heptachlor epoxide	ND		0.054	0.00025	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Hexachlorobenzene	**0.034**	**J B**	0.054	0.000080	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Methoxychlor	ND		0.054	0.0034	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
Mirex	**0.00060**	**J B q**	0.054	0.000077	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
cis-Nonachlor	ND		0.054	0.00089	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1
trans-Nonachlor	ND		0.054	0.00069	ug/Kg	☼	11/11/13 13:01	11/19/13 10:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C12-Aldrin	73		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C6-alpha BHC	68		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C6-beta BHC	81		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C6-gamma BHC	72		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C6-delta BHC	79		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C10-cis Chlordane	78		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C10-trans Chlordane	78		20 - 180	11/11/13 13:01	11/19/13 10:23	1
13C10-oxy Chlordane	80		20 - 180	11/11/13 13:01	11/19/13 10:23	1

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.5

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-2,4'-DDD	*89*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-4,4'-DDD	*96*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-2,4'-DDE	*86*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-4,4'-DDE	*78*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-2,4'-DDT	*100*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-4,4'-DDT	*103*		*30 - 160*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-Dieldrin	*73*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C9-Endosulfan I	*82*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C9-Endosulfan II	*87*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C9-Endosulfan sulfate	*78*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-Endrin	*72*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-Endrin Aldehyde	*61*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C11-Endrin Ketone	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C10-Heptachlor	*94*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-Heptachlor epoxide	*75*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C6-Hexachlorobenzene	*58*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C12-Methoxychlor	*100*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C10-Mirex	*72*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C10-cis Nonachlor	*71*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*
13C10-trans Nonachlor	*79*		*20 - 180*	*11/11/13 13:01*	*11/19/13 10:23*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	27	14	ug/Kg	☼	11/11/13 13:01	12/06/13 18:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*30*		*20 - 180*	*11/11/13 13:01*	*12/06/13 18:09*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.88	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Arsenic	**3.0**		0.88	0.66	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Barium	**4.8**		0.44	0.40	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Beryllium	ND		0.44	0.044	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Cadmium	ND		0.44	0.22	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Chromium	**15**		0.88	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Cobalt	**1.8**		0.44	0.044	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Copper	**1.8**		0.88	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Lead	**0.32**	**J**	0.44	0.26	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Molybdenum	**0.19**	**J**	0.88	0.088	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Nickel	**11**		0.88	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Selenium	**1.4**		0.88	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Silver	ND		0.44	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Thallium	ND		0.44	0.22	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Vanadium	**6.5**		4.4	1.3	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5
Zinc	**3.3**	**J**	4.4	2.6	mg/Kg	☼	11/18/13 07:00	11/21/13 16:49	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.058	0.012	mg/Kg	☼	11/04/13 10:40	11/04/13 14:01	1

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: SEALODGE REEF-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-6

Matrix: Solid
Percent Solids: 77.1

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		42	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Ametryn	ND		42	9.4	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Atrazine	ND		42	9.9	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Azinphos-methyl	ND		85	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Bolstar	ND		42	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Bromacil	ND		42	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Butachlor	ND		42	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Chlorpyrifos	ND		42	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Coumaphos	ND		420	17	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Dichlorvos	ND		85	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Dimethoate	ND		85	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Disulfoton	ND		85	8.0	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
EPN	ND		85	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Fensulfothion	ND		420	14	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Fenthion	ND		42	9.7	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Methyl parathion	ND		42	9.7	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Metolachlor	ND		42	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Metribuzin	ND		42	8.1	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Malathion	ND		42	8.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Ethyl Parathion	ND		42	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Phorate	ND		42	13	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Prometon	ND		42	15	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Prometryn	ND		42	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Propazine	ND		42	6.9	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Simazine	ND		42	8.7	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Stirophos	ND		42	23	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Sulfotepp	ND		42	8.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Thionazin	ND		42	12	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Trichloronate	ND		420	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Tokuthion	ND		42	27	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Ethoprop	ND		42	14	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Ronnel	ND		42	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Terbutryn	ND		42	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Simetryn	ND		42	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Vernolate	ND		42	21	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Cyanizine	ND		42	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Cycloate	ND		42	14	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
EPTC	ND		42	8.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Butylate	ND		42	17	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Molinate	ND		42	28	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1
Pebulate	ND		42	9.7	ug/Kg	☼	11/04/13 07:16	11/28/13 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*72*		*30 - 164*	*11/04/13 07:16*	*11/28/13 04:20*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		43	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Acenaphthylene	ND		43	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Anthracene	ND		43	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5

Client Sample ID: SEALODGE REEF-2

Lab Sample ID: 320-4779-6

Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 77.1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		43	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Benzo[a]pyrene	ND		43	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Benzo[b]fluoranthene	ND		43	6.8	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Benzo[g,h,i]perylene	ND		43	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Benzo[k]fluoranthene	ND		43	8.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Bis(2-chloroethyl)ether	ND		43	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Bis(2-chloroethoxy)methane	ND		210	14	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,2'-oxybis[1-chloropropane]	ND		43	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Bis(2-ethylhexyl) phthalate	ND		430	35	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Bromophenyl phenyl ether	ND		210	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Butyl benzyl phthalate	ND		210	30	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Chloroaniline	ND		210	17	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2-Chloronaphthalene	ND		43	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Chlorophenyl phenyl ether	ND		210	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Chrysene	ND		43	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Dibenz(a,h)anthracene	ND		43	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Dibenzofuran	ND		210	21	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Di-n-butyl phthalate	ND		210	27	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
3,3'-Dichlorobenzidine	ND		210	23	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Diethyl phthalate	ND		210	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Dimethyl phthalate	ND		210	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4-Dinitrotoluene	ND		210	17	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,6-Dinitrotoluene	ND		210	22	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Di-n-octyl phthalate	ND		210	23	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Fluoranthene	ND		43	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Fluorene	ND		43	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Hexachlorobenzene	ND		43	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Hexachlorobutadiene	ND		43	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Hexachlorocyclopentadiene	ND		210	23	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Hexachloroethane	ND		210	16	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Indeno[1,2,3-cd]pyrene	ND		43	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Isophorone	ND		210	16	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2-Methylnaphthalene	ND		43	3.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Naphthalene	ND		43	3.7	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2-Nitroaniline	ND		1100	97	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
3-Nitroaniline	ND		1100	89	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Nitroaniline	ND		1100	88	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Nitrobenzene	ND		430	18	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
N-Nitrosodi-n-propylamine	ND		43	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
N-Nitrosodiphenylamine	ND		210	20	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Phenanthrene	ND		43	6.9	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Pyrene	ND		43	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Carbazole	ND		43	4.0	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Acetophenone	ND		210	18	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Atrazine	ND		210	21	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Benzaldehyde	ND	*	210	32	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
1,1'-Biphenyl	ND		210	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Caprolactam	ND		1100	160	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Chloro-3-methylphenol	ND		210	20	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5

Client Sample ID: SEALODGE REEF-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-6

Matrix: Solid
Percent Solids: 77.1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		210	18	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2-Methylphenol	ND		210	15	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Methylphenol, 3 & 4	ND		210	21	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4-Dichlorophenol	ND		43	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4-Dimethylphenol	ND		210	34	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4-Dinitrophenol	ND		1100	260	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4,6-Dinitro-2-methylphenol	ND		1100	87	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2-Nitrophenol	ND		210	24	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
4-Nitrophenol	ND		1100	79	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Pentachlorophenol	ND		210	19	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
Phenol	ND		43	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4,5-Trichlorophenol	ND		210	23	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5
2,4,6-Trichlorophenol	ND		210	32	ug/Kg	☼	11/09/13 03:30	11/19/13 13:45	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*260*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*400*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*440*	*T B J*	*ug/Kg*	☼	*10.62*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*130*	*T B J*	*ug/Kg*	☼	*11.28*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*800*	*T B J*	*ug/Kg*	☼	*11.83*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*890*	*T B J*	*ug/Kg*	☼	*11.85*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*690*	*T B J*	*ug/Kg*	☼	*12.57*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*3400*	*T B J*	*ug/Kg*	☼	*13.21*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*210*	*T B J*	*ug/Kg*	☼	*13.74*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*710*	*T B J*	*ug/Kg*	☼	*14.17*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*840*	*T B J*	*ug/Kg*	☼	*14.89*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*150*	*T B J*	*ug/Kg*	☼	*15.53*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*980*	*T B J*	*ug/Kg*	☼	*16.01*		*11/09/13 03:30*	*11/19/13 13:45*	*5*
Unknown	*590*	*T B J*	*ug/Kg*	☼	*17.95*		*11/09/13 03:30*	*11/19/13 13:45*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*28 - 108*	*11/09/13 03:30*	*11/19/13 13:45*	*5*
2-Fluorophenol (Surr)	*62*		*28 - 107*	*11/09/13 03:30*	*11/19/13 13:45*	*5*
2,4,6-Tribromophenol (Surr)	*20*	*X*	*21 - 116*	*11/09/13 03:30*	*11/19/13 13:45*	*5*
Nitrobenzene-d5 (Surr)	*61*		*27 - 110*	*11/09/13 03:30*	*11/19/13 13:45*	*5*
Phenol-d5 (Surr)	*58*		*30 - 112*	*11/09/13 03:30*	*11/19/13 13:45*	*5*
Terphenyl-d14 (Surr)	*56*		*21 - 130*	*11/09/13 03:30*	*11/19/13 13:45*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		100	7.1	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
2,4,5-T	ND		26	3.3	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
Silvex (2,4,5-TP)	ND		26	2.7	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
Dalapon	ND		120	9.2	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
2,4-DB	ND		100	7.9	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
Dicamba	ND		52	6.2	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
Dichlorprop	ND		100	12	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
Dinoseb	ND		16	5.9	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
MCPA	ND		10000	2100	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20
MCPP	ND		10000	2100	ug/Kg	☼	11/09/13 06:46	11/20/13 20:17	20

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: SEALODGE REEF-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-6

Matrix: Solid
Percent Solids: 77.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	51		42 - 140	11/09/13 06:46	11/20/13 20:17	20

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.3	0.047	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
2,3,7,8-TCDF	ND		1.3	0.059	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,7,8-PeCDD	ND		6.5	0.083	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,7,8-PeCDF	ND		6.5	0.11	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
2,3,4,7,8-PeCDF	ND		6.5	0.13	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,4,7,8-HxCDD	ND		6.5	0.056	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,6,7,8-HxCDD	ND		6.5	0.043	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,7,8,9-HxCDD	ND		6.5	0.044	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,4,7,8-HxCDF	**0.072**	**J q B**	6.5	0.030	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,6,7,8-HxCDF	ND		6.5	0.026	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,7,8,9-HxCDF	ND		6.5	0.032	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
2,3,4,6,7,8-HxCDF	ND		6.5	0.026	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,4,6,7,8-HpCDD	**0.27**	**J**	6.5	0.037	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,4,6,7,8-HpCDF	**0.25**	**J B**	6.5	0.027	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
1,2,3,4,7,8,9-HpCDF	ND		6.5	0.040	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
OCDD	**2.0**	**J B**	13	0.065	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
OCDF	**0.31**	**J B**	13	0.057	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total TCDD	**0.12**	**J B**	1.3	0.047	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total TCDF	ND		1.3	0.059	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total PeCDD	ND		6.5	0.083	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total PeCDF	ND		6.5	0.13	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total HxCDD	ND		6.5	0.056	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total HxCDF	**0.072**	**J q B**	6.5	0.028	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total HpCDD	**0.67**	**J q B**	6.5	0.037	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1
Total HpCDF	**0.34**	**J q B**	6.5	0.033	pg/g	☼	11/11/13 13:07	11/30/13 01:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	86		25 - 164	11/11/13 13:07	11/30/13 01:24	1
13C-2,3,7,8-TCDF	70		24 - 169	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,7,8-PeCDD	87		25 - 181	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,7,8-PeCDF	74		24 - 185	11/11/13 13:07	11/30/13 01:24	1
13C-2,3,4,7,8-PeCDF	71		21 - 178	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,4,7,8-HxCDD	78		32 - 141	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,6,7,8-HxCDD	103		28 - 130	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,4,7,8-HxCDF	82		26 - 152	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,6,7,8-HxCDF	87		26 - 123	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,7,8,9-HxCDF	83		29 - 147	11/11/13 13:07	11/30/13 01:24	1
13C-2,3,4,6,7,8-HxCDF	85		28 - 136	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,4,6,7,8-HpCDD	96		23 - 140	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,4,6,7,8-HpCDF	88		28 - 143	11/11/13 13:07	11/30/13 01:24	1
13C-1,2,3,4,7,8,9-HpCDF	81		26 - 138	11/11/13 13:07	11/30/13 01:24	1
13C-OCDD	82		17 - 157	11/11/13 13:07	11/30/13 01:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	86		35 - 197	11/11/13 13:07	11/30/13 01:24	1

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: SEALODGE REEF-2

Date Collected: 10/27/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-6

Matrix: Solid
Percent Solids: 77.1

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
alpha-BHC	ND		0.050	0.0014	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
beta-BHC	ND		0.050	0.0017	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
gamma-BHC (Lindane)	**0.0039**	**J B q**	0.050	0.0017	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
delta-BHC	ND		0.050	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
cis-Chlordane	**0.0011**	**J q**	0.050	0.00099	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
trans-Chlordane	ND		0.050	0.00086	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
oxy-Chlordane	ND		0.050	0.00070	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
2,4'-DDD	ND		0.050	0.0055	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
2,4'-DDE	ND		0.050	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
2,4'-DDT	ND		0.050	0.0076	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
4,4'-DDD	ND		0.050	0.0060	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
4,4'-DDE	ND		0.050	0.0025	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
4,4'-DDT	ND		0.050	0.0084	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Dieldrin	**0.0062**	**J**	0.050	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endosulfan I	ND		0.050	0.0024	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endosulfan II	ND		0.050	0.0035	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endosulfan sulfate	**0.00067**	**J q**	0.050	0.00042	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endrin	ND		0.050	0.0021	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endrin aldehyde	ND		0.050	0.0023	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Endrin ketone	ND		0.050	0.0020	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Heptachlor	ND		0.050	0.00029	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Heptachlor epoxide	ND		0.050	0.00045	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Hexachlorobenzene	**0.031**	**J B**	0.050	0.00012	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Methoxychlor	ND		0.050	0.0049	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
Mirex	**0.00056**	**J B q**	0.050	0.00013	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
cis-Nonachlor	ND		0.050	0.0013	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1
trans-Nonachlor	ND		0.050	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 21:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C6-alpha BHC	*68*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C6-beta BHC	*80*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C6-gamma BHC	*73*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C6-delta BHC	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-cis Chlordane	*75*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-trans Chlordane	*79*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-oxy Chlordane	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-2,4'-DDD	*88*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-4,4'-DDD	*90*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-2,4'-DDE	*86*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-4,4'-DDE	*78*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-2,4'-DDT	*94*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-4,4'-DDT	*95*		*30 - 160*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-Dieldrin	*74*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C9-Endosulfan I	*81*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C9-Endosulfan II	*83*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C9-Endosulfan sulfate	*79*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-Endrin	*71*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-Endrin Aldehyde	*70*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*

Client Sample ID: SEALODGE REEF-2

Lab Sample ID: 320-4779-6
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 77.1

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C11-Endrin Ketone	*79*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-Heptachlor	*89*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-Heptachlor epoxide	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C6-Hexachlorobenzene	*58*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C12-Methoxychlor	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-Mirex	*71*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-cis Nonachlor	*69*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*
13C10-trans Nonachlor	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 21:25*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	25	13	ug/Kg	☼	11/11/13 13:01	12/06/13 18:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*32*		*20 - 180*	*11/11/13 13:01*	*12/06/13 18:55*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.65	0.33	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Arsenic	**2.1**		0.65	0.49	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Barium	**4.0**		0.33	0.29	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Beryllium	ND		0.33	0.033	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Cadmium	ND		0.33	0.16	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Chromium	**12**		0.65	0.33	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Cobalt	**1.4**		0.33	0.033	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Copper	**1.2**		0.65	0.33	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Lead	ND		0.33	0.20	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Molybdenum	**0.14**	**J**	0.65	0.065	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Nickel	**8.2**		0.65	0.33	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Selenium	**0.58**	**J**	0.65	0.33	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Silver	ND		0.33	0.098	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Thallium	ND		0.33	0.16	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Vanadium	**4.8**		3.3	0.98	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5
Zinc	**2.2**	**J**	3.3	2.0	mg/Kg	☼	11/18/13 07:00	11/21/13 16:52	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.052	0.011	mg/Kg	☼	11/04/13 10:40	11/04/13 14:03	1

Client Sample ID: HANALEI RIVER-1

Lab Sample ID: 320-4779-7
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 71.8

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		46	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Ametryn	ND		46	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Atrazine	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Azinphos-methyl	ND		92	12	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Bolstar	ND		46	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Bromacil	ND		46	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1

Client Sample ID: HANALEI RIVER-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-7

Matrix: Solid
Percent Solids: 71.8

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butachlor	ND		46	12	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Chlorpyrifos	ND		46	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Coumaphos	ND		460	18	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Dichlorvos	ND		92	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Dimethoate	ND		92	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Disulfoton	ND		92	8.6	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
EPN	ND		92	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Fensulfothion	ND		460	15	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Fenthion	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Methyl parathion	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Metolachlor	ND		46	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Metribuzin	ND		46	8.7	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Malathion	ND		46	8.9	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Ethyl Parathion	ND		46	12	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Phorate	ND		46	14	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Prometon	ND		46	17	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Prometryn	ND		46	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Propazine	ND		46	7.5	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Simazine	ND		46	9.4	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Stirophos	ND		46	25	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Sulfotepp	ND		46	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Thionazin	ND		46	13	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Trichloronate	ND		460	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Tokuthion	ND		46	29	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Ethoprop	ND		46	15	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Ronnel	ND		46	10	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Terbutryn	ND		46	12	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Simetryn	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Vernolate	ND		46	22	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Cyanizine	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Cycloate	ND		46	15	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
EPTC	ND		46	8.9	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Butylate	ND		46	18	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Molinate	ND		46	31	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1
Pebulate	ND		46	11	ug/Kg	☼	11/04/13 07:16	11/28/13 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*62*		*30 - 164*	*11/04/13 07:16*	*11/28/13 04:53*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		47	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Acenaphthylene	ND		47	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Anthracene	ND		47	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzo[a]anthracene	ND		47	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzo[a]pyrene	ND		47	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzo[b]fluoranthene	ND		47	7.3	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzo[g,h,i]perylene	ND		47	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzo[k]fluoranthene	ND		47	9.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Bis(2-chloroethyl)ether	ND		47	6.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5

Client Sample ID: HANALEI RIVER-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-7

Matrix: Solid
Percent Solids: 71.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		230	15	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,2'-oxybis[1-chloropropane]	ND		47	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Bis(2-ethylhexyl) phthalate	ND		460	38	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Bromophenyl phenyl ether	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Butyl benzyl phthalate	ND		230	32	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Chloroaniline	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Chloronaphthalene	ND		47	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Chlorophenyl phenyl ether	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Chrysene	ND		47	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Dibenz(a,h)anthracene	ND		47	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Dibenzofuran	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Di-n-butyl phthalate	ND		230	29	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
3,3'-Dichlorobenzidine	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Diethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Dimethyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4-Dinitrotoluene	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,6-Dinitrotoluene	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Di-n-octyl phthalate	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Fluoranthene	ND		47	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Fluorene	ND		47	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Hexachlorobenzene	ND		47	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Hexachlorobutadiene	ND		47	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Hexachlorocyclopentadiene	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Hexachloroethane	ND		230	17	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Indeno[1,2,3-cd]pyrene	ND		47	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Isophorone	ND		230	18	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Methylnaphthalene	ND		47	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Naphthalene	ND		47	4.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Nitroaniline	ND		1200	100	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
3-Nitroaniline	ND		1200	96	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Nitroaniline	ND		1200	94	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Nitrobenzene	ND		460	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
N-Nitrosodi-n-propylamine	ND		47	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
N-Nitrosodiphenylamine	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Phenanthrene	ND		47	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Pyrene	ND		47	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Carbazole	ND		47	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Acetophenone	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Atrazine	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Benzaldehyde	ND	*	230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
1,1'-Biphenyl	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Caprolactam	ND		1200	180	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Chloro-3-methylphenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Chlorophenol	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Methylphenol	ND		230	16	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Methylphenol, 3 & 4	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4-Dichlorophenol	ND		47	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4-Dimethylphenol	ND		230	36	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4-Dinitrophenol	ND		1200	280	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5

Client Sample ID: HANALEI RIVER-1

Lab Sample ID: 320-4779-7
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 71.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		1200	93	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2-Nitrophenol	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
4-Nitrophenol	ND		1200	85	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Pentachlorophenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
Phenol	ND		47	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4,5-Trichlorophenol	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5
2,4,6-Trichlorophenol	ND		230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 14:11	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*220*	*T J*	*ug/Kg*	☼	*7.19*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*320*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*490*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*170*	*T J*	*ug/Kg*	☼	*10.43*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*1400*	*T J*	*ug/Kg*	☼	*10.45*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*340*	*T J*	*ug/Kg*	☼	*10.63*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*220*	*T J*	*ug/Kg*	☼	*11.45*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*950*	*T J*	*ug/Kg*	☼	*12.58*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*1100*	*T J*	*ug/Kg*	☼	*14.19*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*900*	*T J*	*ug/Kg*	☼	*16.02*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*370*	*T J*	*ug/Kg*	☼	*17.89*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*490*	*T J*	*ug/Kg*	☼	*19.80*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown Alkane	*380*	*T J*	*ug/Kg*	☼	*19.90*		*11/09/13 03:30*	*11/19/13 14:11*	*5*
Unknown	*800*	*T J*	*ug/Kg*	☼	*20.29*		*11/09/13 03:30*	*11/19/13 14:11*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*28 - 108*	*11/09/13 03:30*	*11/19/13 14:11*	*5*
2-Fluorophenol (Surr)	*64*		*28 - 107*	*11/09/13 03:30*	*11/19/13 14:11*	*5*
2,4,6-Tribromophenol (Surr)	*38*		*21 - 116*	*11/09/13 03:30*	*11/19/13 14:11*	*5*
Nitrobenzene-d5 (Surr)	*70*		*27 - 110*	*11/09/13 03:30*	*11/19/13 14:11*	*5*
Phenol-d5 (Surr)	*60*		*30 - 112*	*11/09/13 03:30*	*11/19/13 14:11*	*5*
Terphenyl-d14 (Surr)	*79*		*21 - 130*	*11/09/13 03:30*	*11/19/13 14:11*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		110	7.6	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
2,4,5-T	ND		28	3.5	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
Silvex (2,4,5-TP)	ND		28	2.9	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
Dalapon	ND		130	9.9	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
2,4-DB	ND		110	8.5	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
Dicamba	ND		56	6.7	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
Dichlorprop	ND		110	13	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
Dinoseb	ND		17	6.3	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
MCPA	ND		11000	2300	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20
MCPP	ND		11000	2200	ug/Kg	☼	11/09/13 06:46	11/20/13 20:41	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*48*		*42 - 140*	*11/09/13 06:46*	*11/20/13 20:41*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4	0.070	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1

Client Sample ID: HANALEI RIVER-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-7

Matrix: Solid
Percent Solids: 71.8

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	ND		1.4	0.076	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,7,8-PeCDD	ND		6.8	0.11	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,7,8-PeCDF	ND		6.8	0.12	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
2,3,4,7,8-PeCDF	ND		6.8	0.14	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,4,7,8-HxCDD	**0.21**	**J q**	6.8	0.058	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,6,7,8-HxCDD	**0.21**	**J**	6.8	0.046	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,7,8,9-HxCDD	**0.21**	**J**	6.8	0.046	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,4,7,8-HxCDF	**0.17**	**J q B**	6.8	0.048	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,6,7,8-HxCDF	**0.075**	**J B**	6.8	0.043	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,7,8,9-HxCDF	ND		6.8	0.053	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
2,3,4,6,7,8-HxCDF	ND		6.8	0.042	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,4,6,7,8-HpCDD	**4.4**	**J**	6.8	0.13	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,4,6,7,8-HpCDF	**0.97**	**J B**	6.8	0.054	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
1,2,3,4,7,8,9-HpCDF	ND		6.8	0.077	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
OCDD	**45**	**B**	14	0.49	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
OCDF	**1.9**	**J B**	14	0.077	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total TCDD	**0.92**	**J q B**	1.4	0.070	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total TCDF	**0.14**	**J q**	1.4	0.076	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total PeCDD	**0.11**	**J**	6.8	0.11	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total PeCDF	**0.14**	**J**	6.8	0.13	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total HxCDD	**2.5**	**J q**	6.8	0.050	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total HxCDF	**1.0**	**J q B**	6.8	0.047	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total HpCDD	**9.9**	**B**	6.8	0.13	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1
Total HpCDF	**2.3**	**J B**	6.8	0.066	pg/g	☼	11/11/13 13:07	11/30/13 02:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*83*		*25 - 164*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-2,3,7,8-TCDF	*70*		*24 - 169*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,7,8-PeCDD	*86*		*25 - 181*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,7,8-PeCDF	*72*		*24 - 185*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*21 - 178*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,4,7,8-HxCDD	*77*		*32 - 141*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,6,7,8-HxCDD	*95*		*28 - 130*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,4,7,8-HxCDF	*77*		*26 - 152*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,6,7,8-HxCDF	*86*		*26 - 123*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,7,8,9-HxCDF	*79*		*29 - 147*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-2,3,4,6,7,8-HxCDF	*83*		*28 - 136*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*23 - 140*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*87*		*28 - 143*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*77*		*26 - 138*	*11/11/13 13:07*	*11/30/13 02:08*	*1*
13C-OCDD	*78*		*17 - 157*	*11/11/13 13:07*	*11/30/13 02:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*83*		*35 - 197*	*11/11/13 13:07*	*11/30/13 02:08*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.056	0.00090	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
alpha-BHC	ND		0.056	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
beta-BHC	ND		0.056	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
gamma-BHC (Lindane)	**0.0046**	**J B q**	0.056	0.0018	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI RIVER-1
Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-7
Matrix: Solid
Percent Solids: 71.8

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.056	0.0026	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
cis-Chlordane	**0.0092**	**J**	0.056	0.0011	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
trans-Chlordane	**0.011**	**J B**	0.056	0.00093	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
oxy-Chlordane	ND		0.056	0.00089	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
2,4'-DDD	ND		0.056	0.0054	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
2,4'-DDE	ND		0.056	0.0019	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
2,4'-DDT	ND		0.056	0.0073	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
4,4'-DDD	ND		0.056	0.0052	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
4,4'-DDE	**0.011**	**J q**	0.056	0.0027	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
4,4'-DDT	ND		0.056	0.0099	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Dieldrin	**0.011**	**J**	0.056	0.0015	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endosulfan I	ND		0.056	0.0029	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endosulfan II	ND		0.056	0.0043	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endosulfan sulfate	ND		0.056	0.00056	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endrin	ND		0.056	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endrin aldehyde	ND		0.056	0.0022	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Endrin ketone	ND		0.056	0.0023	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Heptachlor	ND		0.056	0.00031	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Heptachlor epoxide	ND		0.056	0.00052	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Hexachlorobenzene	**0.032**	**J B**	0.056	0.00012	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Methoxychlor	ND		0.056	0.0048	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
Mirex	**0.00073**	**J B q**	0.056	0.00014	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
cis-Nonachlor	**0.0073**	**J**	0.056	0.0016	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1
trans-Nonachlor	**0.012**	**J**	0.056	0.0012	ug/Kg	☼	11/11/13 13:01	11/19/13 22:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*66*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C6-alpha BHC	*67*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C6-beta BHC	*86*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C6-gamma BHC	*72*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C6-delta BHC	*62*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-cis Chlordane	*82*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-trans Chlordane	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-oxy Chlordane	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-2,4'-DDD	*108*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-4,4'-DDD	*114*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-2,4'-DDE	*92*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-4,4'-DDE	*90*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-2,4'-DDT	*109*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-4,4'-DDT	*97*		*30 - 160*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-Dieldrin	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C9-Endosulfan I	*84*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C9-Endosulfan II	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C9-Endosulfan sulfate	*79*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-Endrin	*85*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-Endrin Aldehyde	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C11-Endrin Ketone	*91*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-Heptachlor	*96*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C12-Heptachlor epoxide	*78*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C6-Hexachlorobenzene	*61*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*

Client Sample ID: HANALEI RIVER-1

Lab Sample ID: 320-4779-7
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 71.8

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Methoxychlor	*93*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-Mirex	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-cis Nonachlor	*77*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*
13C10-trans Nonachlor	*81*		*20 - 180*	*11/11/13 13:01*	*11/19/13 22:26*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	* G	44	44	ug/Kg	☼	11/11/13 13:01	12/06/13 19:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*18*	*	*20 - 180*	*11/11/13 13:01*	*12/06/13 19:41*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Arsenic	**14**		1.5	1.1	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Barium	**16**		0.73	0.65	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Beryllium	**0.34**	**J**	0.73	0.073	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Cadmium	**1.2**		0.73	0.36	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Chromium	**160**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Cobalt	**55**		0.73	0.073	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Copper	**39**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Lead	**2.7**		0.73	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Molybdenum	**0.37**	**J**	1.5	0.15	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Nickel	**480**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Selenium	ND		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Silver	ND		0.73	0.22	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Thallium	ND		0.73	0.36	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Vanadium	**77**		7.3	2.2	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5
Zinc	**76**		7.3	4.4	mg/Kg	☼	11/18/13 07:00	11/21/13 17:09	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**	**J**	0.059	0.013	mg/Kg	☼	11/04/13 10:40	11/04/13 14:05	1

Client Sample ID: HANALEI RIVER-2

Lab Sample ID: 320-4779-8
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 64.8

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		50	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Ametryn	ND		50	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Atrazine	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Azinphos-methyl	ND		100	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Bolstar	ND		50	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Bromacil	ND		50	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Butachlor	ND		50	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Chlorpyrifos	ND		50	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Coumaphos	ND		500	20	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Dichlorvos	ND		100	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1

Client Sample ID: HANALEI RIVER-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-8
Matrix: Solid
Percent Solids: 64.8

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethoate	ND		100	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Disulfoton	ND		100	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
EPN	ND		100	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Fensulfothion	ND		500	17	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Fenthion	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Methyl parathion	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Metolachlor	ND		50	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Metribuzin	ND		50	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Malathion	ND		50	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Ethyl Parathion	ND		50	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Phorate	ND		50	15	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Prometon	ND		50	18	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Prometryn	ND		50	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Propazine	ND		50	8.2	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Simazine	ND		50	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Stirophos	ND		50	27	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Sulfotepp	ND		50	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Thionazin	ND		50	14	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Trichloronate	ND		500	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Tokuthion	ND		50	32	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Ethoprop	ND		50	17	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Ronnel	ND		50	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Terbutryn	ND		50	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Simetryn	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Vernolate	ND		50	24	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Cyanizine	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Cycloate	ND		50	17	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
EPTC	ND		50	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Butylate	ND		50	20	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Molinate	ND		50	34	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1
Pebulate	ND		50	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*79*		*30 - 164*	*11/04/13 07:16*	*11/28/13 05:26*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		52	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Acenaphthylene	ND		52	5.9	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Anthracene	ND		52	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzo[a]anthracene	ND		52	6.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzo[a]pyrene	ND		52	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzo[b]fluoranthene	ND		52	8.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzo[g,h,i]perylene	ND		52	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzo[k]fluoranthene	ND		52	10	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Bis(2-chloroethyl)ether	ND		52	6.9	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Bis(2-chloroethoxy)methane	ND		250	17	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,2'-oxybis[1-chloropropane]	ND		52	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Bis(2-ethylhexyl) phthalate	ND		510	42	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Bromophenyl phenyl ether	ND		250	22	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI RIVER-2
Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-8
Matrix: Solid
Percent Solids: 64.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		250	35	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Chloroaniline	ND		250	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Chloronaphthalene	ND		52	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Chlorophenyl phenyl ether	ND		250	29	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Chrysene	ND		52	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Dibenz(a,h)anthracene	ND		52	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Dibenzofuran	ND		250	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Di-n-butyl phthalate	ND		250	32	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
3,3'-Dichlorobenzidine	ND		250	27	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Diethyl phthalate	ND		250	28	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Dimethyl phthalate	ND		250	28	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4-Dinitrotoluene	ND		250	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,6-Dinitrotoluene	ND		250	27	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Di-n-octyl phthalate	ND		250	27	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Fluoranthene	ND		52	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Fluorene	ND		52	6.8	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Hexachlorobenzene	ND		52	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Hexachlorobutadiene	ND		52	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Hexachlorocyclopentadiene	ND		250	28	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Hexachloroethane	ND		250	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Indeno[1,2,3-cd]pyrene	ND		52	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Isophorone	ND		250	19	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Methylnaphthalene	ND		52	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Naphthalene	ND		52	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Nitroaniline	ND		1300	120	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
3-Nitroaniline	ND		1300	110	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Nitroaniline	ND		1300	100	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Nitrobenzene	ND		510	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
N-Nitrosodi-n-propylamine	ND		52	6.0	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
N-Nitrosodiphenylamine	ND		250	24	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Phenanthrene	ND		52	8.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Pyrene	ND		52	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Carbazole	ND		52	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Acetophenone	ND		250	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Atrazine	ND		250	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Benzaldehyde	ND	*	250	39	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
1,1'-Biphenyl	ND		250	23	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Caprolactam	ND		1300	190	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Chloro-3-methylphenol	ND		250	24	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Chlorophenol	ND		250	21	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Methylphenol	ND		250	18	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Methylphenol, 3 & 4	ND		250	25	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4-Dichlorophenol	ND		52	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4-Dimethylphenol	ND		250	40	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4-Dinitrophenol	ND		1300	310	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4,6-Dinitro-2-methylphenol	ND		1300	100	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2-Nitrophenol	ND		250	28	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
4-Nitrophenol	ND		1300	94	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
Pentachlorophenol	ND		250	23	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5

Client Sample ID: HANALEI RIVER-2

Lab Sample ID: 320-4779-8
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 64.8

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		52	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4,5-Trichlorophenol	ND		250	27	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5
2,4,6-Trichlorophenol	ND		250	39	ug/Kg	☼	11/09/13 03:30	11/19/13 14:38	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*340*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*520*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	*360*	*T J N*	*ug/Kg*	☼	*9.14*	*489-40-7*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*1900*	*T J*	*ug/Kg*	☼	*10.45*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown Alkane	*250*	*T J*	*ug/Kg*	☼	*10.55*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown Alkane	*550*	*T J*	*ug/Kg*	☼	*10.63*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*260*	*T J*	*ug/Kg*	☼	*16.03*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*500*	*T J*	*ug/Kg*	☼	*18.87*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*350*	*T J*	*ug/Kg*	☼	*19.67*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*390*	*T J*	*ug/Kg*	☼	*19.81*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown Alkane	*720*	*T J*	*ug/Kg*	☼	*19.90*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown Alkane	*330*	*T J*	*ug/Kg*	☼	*20.00*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*350*	*T J*	*ug/Kg*	☼	*20.12*		*11/09/13 03:30*	*11/19/13 14:38*	*5*
Unknown	*590*	*T J*	*ug/Kg*	☼	*20.29*		*11/09/13 03:30*	*11/19/13 14:38*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*28 - 108*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
2-Fluorophenol (Surr)	*67*		*28 - 107*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
2,4,6-Tribromophenol (Surr)	*35*		*21 - 116*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
Nitrobenzene-d5 (Surr)	*68*		*27 - 110*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
Phenol-d5 (Surr)	*58*		*30 - 112*	*11/09/13 03:30*	*11/19/13 14:38*	*5*
Terphenyl-d14 (Surr)	*56*		*21 - 130*	*11/09/13 03:30*	*11/19/13 14:38*	*5*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		120	8.4	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
2,4,5-T	ND		31	3.9	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
Silvex (2,4,5-TP)	ND		31	3.2	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
Dalapon	ND		140	11	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
2,4-DB	ND		120	9.4	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
Dicamba	ND		62	7.4	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
Dichlorprop	ND		120	15	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
Dinoseb	ND		18	7.0	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
MCPA	ND		12000	2500	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20
MCPP	ND		12000	2500	ug/Kg	☼	11/09/13 06:46	11/20/13 21:05	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*50*		*42 - 140*	*11/09/13 06:46*	*11/20/13 21:05*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		3.1	0.14	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
2,3,7,8-TCDF	ND		3.1	0.16	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,7,8-PeCDD	ND		15	0.26	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,7,8-PeCDF	ND		15	0.27	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI RIVER-2

Lab Sample ID: 320-4779-8
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 64.8

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	ND		15	0.32	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,4,7,8-HxCDD	**0.38**	**J q**	15	0.088	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,6,7,8-HxCDD	**0.30**	**J**	15	0.071	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,7,8,9-HxCDD	**0.29**	**J**	15	0.071	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,4,7,8-HxCDF	**0.27**	**J B**	15	0.082	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,6,7,8-HxCDF	ND		15	0.072	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,7,8,9-HxCDF	ND		15	0.088	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
2,3,4,6,7,8-HxCDF	ND		15	0.070	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,4,6,7,8-HpCDD	**5.0**	**J**	15	0.17	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,4,6,7,8-HpCDF	**1.5**	**J B**	15	0.10	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
1,2,3,4,7,8,9-HpCDF	ND		15	0.16	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
OCDD	**38**	**B**	31	0.53	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
OCDF	**2.6**	**J B**	31	0.16	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total TCDD	**1.1**	**J q B**	3.1	0.14	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total TCDF	**0.39**	**J**	3.1	0.16	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total PeCDD	ND		15	0.26	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total PeCDF	ND		15	0.29	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total HxCDD	**3.1**	**J q**	15	0.077	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total HxCDF	**1.3**	**J q B**	15	0.078	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total HpCDD	**9.9**	**J B**	15	0.17	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1
Total HpCDF	**3.2**	**J B**	15	0.13	pg/g	☼	11/11/13 13:07	11/30/13 02:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*87*		*25 - 164*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-2,3,7,8-TCDF	*71*		*24 - 169*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,7,8-PeCDD	*90*		*25 - 181*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,7,8-PeCDF	*75*		*24 - 185*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-2,3,4,7,8-PeCDF	*73*		*21 - 178*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,4,7,8-HxCDD	*83*		*32 - 141*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,6,7,8-HxCDD	*100*		*28 - 130*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,4,7,8-HxCDF	*82*		*26 - 152*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,6,7,8-HxCDF	*88*		*26 - 123*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,7,8,9-HxCDF	*83*		*29 - 147*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-2,3,4,6,7,8-HxCDF	*84*		*28 - 136*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*23 - 140*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*89*		*28 - 143*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*26 - 138*	*11/11/13 13:07*	*11/30/13 02:51*	*1*
13C-OCDD	*81*		*17 - 157*	*11/11/13 13:07*	*11/30/13 02:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*86*		*35 - 197*	*11/11/13 13:07*	*11/30/13 02:51*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.12	0.0014	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
alpha-BHC	ND		0.12	0.0036	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
beta-BHC	ND		0.12	0.0043	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
gamma-BHC (Lindane)	ND		0.12	0.0045	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
delta-BHC	ND		0.12	0.014	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
cis-Chlordane	**0.026**	**J**	0.12	0.0020	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
trans-Chlordane	**0.022**	**J B**	0.12	0.0018	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1

Client Sample ID: HANALEI RIVER-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-8

Matrix: Solid
Percent Solids: 64.8

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
oxy-Chlordane	ND		0.12	0.0018	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
2,4'-DDD	ND		0.12	0.012	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
2,4'-DDE	ND		0.12	0.0042	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
2,4'-DDT	ND		0.12	0.015	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
4,4'-DDD	ND		0.12	0.012	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
4,4'-DDE	**0.020**	**J**	0.12	0.0059	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
4,4'-DDT	ND		0.12	0.019	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Dieldrin	**0.0090**	**J q**	0.12	0.0030	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endosulfan I	ND		0.12	0.0051	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endosulfan II	ND		0.12	0.0086	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endosulfan sulfate	ND		0.12	0.0011	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endrin	ND		0.12	0.0032	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endrin aldehyde	ND		0.12	0.0049	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Endrin ketone	ND		0.12	0.0051	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Heptachlor	**0.0020**	**J B**	0.12	0.00064	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Heptachlor epoxide	ND		0.12	0.0012	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Hexachlorobenzene	**0.066**	**J B**	0.12	0.00025	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Methoxychlor	ND		0.12	0.0076	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
Mirex	**0.0041**	**J B q**	0.12	0.00030	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
cis-Nonachlor	**0.010**	**J q**	0.12	0.0030	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1
trans-Nonachlor	**0.021**	**J**	0.12	0.0022	ug/Kg	☼	11/11/13 13:01	11/20/13 02:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*86*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C6-alpha BHC	*72*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C6-beta BHC	*88*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C6-gamma BHC	*78*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C6-delta BHC	*31*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-cis Chlordane	*85*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-trans Chlordane	*88*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-oxy Chlordane	*93*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-2,4'-DDD	*101*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-4,4'-DDD	*109*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-2,4'-DDE	*93*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-4,4'-DDE	*87*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-2,4'-DDT	*114*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-4,4'-DDT	*106*		*30 - 160*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-Dieldrin	*79*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C9-Endosulfan I	*88*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C9-Endosulfan II	*88*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C9-Endosulfan sulfate	*72*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-Endrin	*77*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-Endrin Aldehyde	*90*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C11-Endrin Ketone	*91*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-Heptachlor	*107*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-Heptachlor epoxide	*86*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C6-Hexachlorobenzene	*70*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C12-Methoxychlor	*100*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-Mirex	*76*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*
13C10-cis Nonachlor	*73*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*

Client Sample ID: HANALEI RIVER-2

Lab Sample ID: 320-4779-8
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 64.8

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C10-trans Nonachlor	*82*		*20 - 180*	*11/11/13 13:01*	*11/20/13 02:52*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	59	26	ug/Kg	☼	11/11/13 13:01	12/09/13 17:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*44*		*20 - 180*	*11/11/13 13:01*	*12/09/13 17:23*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Arsenic	**15**		1.5	1.1	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Barium	**18**		0.73	0.66	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Beryllium	**0.39**	**J**	0.73	0.073	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Cadmium	**1.2**		0.73	0.37	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Chromium	**180**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Cobalt	**61**		0.73	0.073	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Copper	**43**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Lead	**2.9**		0.73	0.44	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Molybdenum	**0.41**	**J**	1.5	0.15	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Nickel	**530**		1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Selenium	**0.99**	**J**	1.5	0.73	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Silver	**0.24**	**J**	0.73	0.22	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Thallium	ND		0.73	0.37	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Vanadium	**88**		7.3	2.2	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5
Zinc	**82**		7.3	4.4	mg/Kg	☼	11/18/13 07:00	11/21/13 17:13	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**	**J**	0.060	0.013	mg/Kg	☼	11/04/13 10:40	11/04/13 14:07	1

Client Sample ID: ANINI CREEK-1

Lab Sample ID: 320-4779-9
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 67.9

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		48	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Ametryn	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Atrazine	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Azinphos-methyl	ND		96	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Bolstar	ND		48	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Bromacil	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Butachlor	ND		48	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Chlorpyrifos	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Coumaphos	ND		480	19	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Dichlorvos	ND		96	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Dimethoate	ND		96	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Disulfoton	ND		96	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
EPN	ND		96	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1

Client Sample ID: ANINI CREEK-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-9

Matrix: Solid
Percent Solids: 67.9

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fensulfothion	ND		480	16	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Fenthion	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Methyl parathion	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Metolachlor	ND		48	10	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Metribuzin	ND		48	9.2	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Malathion	ND		48	9.4	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Ethyl Parathion	ND		48	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Phorate	ND		48	15	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Prometon	ND		48	18	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Prometryn	ND		48	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Propazine	ND		48	7.9	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Simazine	ND		48	9.9	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Stirophos	ND		48	26	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Sulfotepp	ND		48	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Thionazin	ND		48	13	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Trichloronate	ND		480	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Tokuthion	ND		48	31	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Ethoprop	ND		48	16	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Ronnel	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Terbutryn	ND		48	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Simetryn	ND		48	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Vernolate	ND		48	23	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Cyanizine	ND		48	12	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Cycloate	ND		48	16	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
EPTC	ND		48	9.4	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Butylate	ND		48	19	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Molinate	ND		48	32	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1
Pebulate	ND		48	11	ug/Kg	☼	11/04/13 07:16	11/28/13 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*69*		*30 - 164*	*11/04/13 07:16*	*11/28/13 05:59*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		49	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Acenaphthylene	ND		49	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Anthracene	ND		49	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzo[a]anthracene	ND		49	6.1	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzo[a]pyrene	ND		49	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzo[b]fluoranthene	ND		49	7.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzo[g,h,i]perylene	ND		49	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzo[k]fluoranthene	ND		49	9.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Bis(2-chloroethyl)ether	ND		49	6.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Bis(2-chloroethoxy)methane	ND		240	16	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,2'-oxybis[1-chloropropane]	ND		49	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Bis(2-ethylhexyl) phthalate	ND		490	39	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4-Bromophenyl phenyl ether	ND		240	21	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Butyl benzyl phthalate	ND		240	33	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4-Chloroaniline	ND		240	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Chloronaphthalene	ND		49	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5

Client Sample ID: ANINI CREEK-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-9

Matrix: Solid
Percent Solids: 67.9

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		240	27	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Chrysene	ND		49	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Dibenz(a,h)anthracene	ND		49	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Dibenzofuran	ND		240	24	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Di-n-butyl phthalate	ND		240	31	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
3,3'-Dichlorobenzidine	ND		240	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Diethyl phthalate	ND		240	27	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Dimethyl phthalate	ND		240	27	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4-Dinitrotoluene	ND		240	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,6-Dinitrotoluene	ND		240	25	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Di-n-octyl phthalate	ND		240	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Fluoranthene	ND		49	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Fluorene	ND		49	6.4	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Hexachlorobenzene	ND		49	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Hexachlorobutadiene	ND		49	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Hexachlorocyclopentadiene	ND		240	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Hexachloroethane	ND		240	18	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Indeno[1,2,3-cd]pyrene	ND		49	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Isophorone	ND		240	18	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Methylnaphthalene	ND		49	4.4	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Naphthalene	ND		49	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Nitroaniline	ND		1200	110	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
3-Nitroaniline	ND		1200	100	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4-Nitroaniline	ND		1200	99	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Nitrobenzene	ND		490	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
N-Nitrosodi-n-propylamine	ND		49	5.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
N-Nitrosodiphenylamine	ND		240	23	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Phenanthrene	ND		49	7.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Pyrene	ND		49	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Carbazole	ND		49	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Acetophenone	ND		240	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Atrazine	ND		240	24	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Benzaldehyde	ND	*	240	37	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
1,1'-Biphenyl	ND		240	22	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Caprolactam	ND		1200	180	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4-Chloro-3-methylphenol	ND		240	22	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Chlorophenol	ND		240	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Methylphenol	ND		240	17	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Methylphenol, 3 & 4	ND		240	24	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4-Dichlorophenol	ND		49	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4-Dimethylphenol	ND		240	38	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4-Dinitrophenol	ND		1200	290	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4,6-Dinitro-2-methylphenol	ND		1200	98	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2-Nitrophenol	ND		240	27	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
4-Nitrophenol	ND		1200	89	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Pentachlorophenol	ND		240	22	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
Phenol	ND		49	5.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4,5-Trichlorophenol	ND		240	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5
2,4,6-Trichlorophenol	ND		240	37	ug/Kg	☼	11/09/13 03:30	11/19/13 15:04	5

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI CREEK-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-9

Matrix: Solid
Percent Solids: 67.9

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown Organic Acid	120	T J	ug/Kg	☼	7.19		11/09/13 03:30	11/19/13 15:04	5
Unknown	290	T J	ug/Kg	☼	7.64		11/09/13 03:30	11/19/13 15:04	5
Unknown	490	T J	ug/Kg	☼	7.67		11/09/13 03:30	11/19/13 15:04	5
Unknown	160	T J	ug/Kg	☼	15.75		11/09/13 03:30	11/19/13 15:04	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		28 - 108	11/09/13 03:30	11/19/13 15:04	5
2-Fluorophenol (Surr)	59		28 - 107	11/09/13 03:30	11/19/13 15:04	5
2,4,6-Tribromophenol (Surr)	17	X	21 - 116	11/09/13 03:30	11/19/13 15:04	5
Nitrobenzene-d5 (Surr)	54		27 - 110	11/09/13 03:30	11/19/13 15:04	5
Phenol-d5 (Surr)	53		30 - 112	11/09/13 03:30	11/19/13 15:04	5
Terphenyl-d14 (Surr)	48		21 - 130	11/09/13 03:30	11/19/13 15:04	5

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		120	8.0	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
2,4,5-T	ND		29	3.7	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
Silvex (2,4,5-TP)	ND		29	3.1	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
Dalapon	ND		130	10	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
2,4-DB	ND		120	9.0	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
Dicamba	ND		59	7.0	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
Dichlorprop	ND		120	14	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
Dinoseb	ND		18	6.7	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
MCPA	ND		12000	2400	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20
MCPP	ND		12000	2400	ug/Kg	☼	11/09/13 06:46	11/20/13 21:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	50		42 - 140	11/09/13 06:46	11/20/13 21:30	20

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.5	0.067	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
2,3,7,8-TCDF	ND		1.5	0.070	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,7,8-PeCDD	ND		7.3	0.13	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,7,8-PeCDF	ND		7.3	0.16	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
2,3,4,7,8-PeCDF	ND		7.3	0.19	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,4,7,8-HxCDD	ND		7.3	0.055	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,6,7,8-HxCDD	ND		7.3	0.045	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,7,8,9-HxCDD	ND		7.3	0.045	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,4,7,8-HxCDF	**0.13**	**J B**	7.3	0.044	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,6,7,8-HxCDF	ND		7.3	0.039	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,7,8,9-HxCDF	ND		7.3	0.047	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
2,3,4,6,7,8-HxCDF	ND		7.3	0.037	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,4,6,7,8-HpCDD	**0.53**	**J q**	7.3	0.044	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,4,6,7,8-HpCDF	**0.47**	**J B**	7.3	0.033	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
1,2,3,4,7,8,9-HpCDF	ND		7.3	0.051	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
OCDD	**6.4**	**J B**	15	0.12	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
OCDF	**0.65**	**J B**	15	0.073	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total TCDD	**0.16**	**J q B**	1.5	0.067	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total TCDF	ND		1.5	0.070	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total PeCDD	ND		7.3	0.13	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1

Client Sample ID: ANINI CREEK-1

Lab Sample ID: 320-4779-9

Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 67.9

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PeCDF	ND		7.3	0.19	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total HxCDD	**0.25**	**J q**	7.3	0.049	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total HxCDF	**0.33**	**J q B**	7.3	0.042	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total HpCDD	**1.8**	**J q B**	7.3	0.044	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1
Total HpCDF	**0.82**	**J q B**	7.3	0.042	pg/g	☼	11/11/13 13:07	11/30/13 03:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*83*		*25 - 164*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-2,3,7,8-TCDF	*68*		*24 - 169*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,7,8-PeCDD	*85*		*25 - 181*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,7,8-PeCDF	*71*		*24 - 185*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-2,3,4,7,8-PeCDF	*69*		*21 - 178*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,4,7,8-HxCDD	*78*		*32 - 141*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,6,7,8-HxCDD	*94*		*28 - 130*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,4,7,8-HxCDF	*78*		*26 - 152*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,6,7,8-HxCDF	*81*		*26 - 123*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,7,8,9-HxCDF	*79*		*29 - 147*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-2,3,4,6,7,8-HxCDF	*81*		*28 - 136*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*23 - 140*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*28 - 143*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*77*		*26 - 138*	*11/11/13 13:07*	*11/30/13 03:34*	*1*
13C-OCDD	*77*		*17 - 157*	*11/11/13 13:07*	*11/30/13 03:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*83*		*35 - 197*	*11/11/13 13:07*	*11/30/13 03:34*	*1*

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.059	0.00069	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
alpha-BHC	ND		0.059	0.0014	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
beta-BHC	ND		0.059	0.0017	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
gamma-BHC (Lindane)	ND		0.059	0.0018	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
delta-BHC	ND		0.059	0.0028	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
cis-Chlordane	**0.0036**	**J**	0.059	0.0010	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
trans-Chlordane	**0.0031**	**J B q**	0.059	0.00088	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
oxy-Chlordane	ND		0.059	0.00093	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
2,4'-DDD	ND		0.059	0.0051	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
2,4'-DDE	ND		0.059	0.0019	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
2,4'-DDT	ND		0.059	0.0067	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
4,4'-DDD	ND		0.059	0.0049	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
4,4'-DDE	ND		0.059	0.0026	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
4,4'-DDT	ND		0.059	0.0079	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Dieldrin	**0.0036**	**J q**	0.059	0.0015	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endosulfan I	ND		0.059	0.0027	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endosulfan II	ND		0.059	0.0034	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endosulfan sulfate	**0.0030**	**J q**	0.059	0.00041	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endrin	ND		0.059	0.0018	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endrin aldehyde	ND		0.059	0.0022	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Endrin ketone	ND		0.059	0.0021	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Heptachlor	ND		0.059	0.00036	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Heptachlor epoxide	ND		0.059	0.00062	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1

Client Sample ID: ANINI CREEK-1

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-9

Matrix: Solid
Percent Solids: 67.9

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	**0.033**	**J B**	0.059	0.00013	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Methoxychlor	ND		0.059	0.0040	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
Mirex	**0.0031**	**J B**	0.059	0.00013	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
cis-Nonachlor	ND		0.059	0.0013	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1
trans-Nonachlor	**0.0029**	**J**	0.059	0.0010	ug/Kg	☼	11/11/13 13:01	11/20/13 05:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C12-Aldrin	*71*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C6-alpha BHC	*66*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C6-beta BHC	*76*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C6-gamma BHC	*67*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C6-delta BHC	*58*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-cis Chlordane	*72*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-trans Chlordane	*74*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-oxy Chlordane	*74*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-2,4'-DDD	*86*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-4,4'-DDD	*92*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-2,4'-DDE	*81*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-4,4'-DDE	*75*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-2,4'-DDT	*93*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-4,4'-DDT	*92*		*30 - 160*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-Dieldrin	*70*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C9-Endosulfan I	*74*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C9-Endosulfan II	*82*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C9-Endosulfan sulfate	*77*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-Endrin	*62*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-Endrin Aldehyde	*78*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C11-Endrin Ketone	*82*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-Heptachlor	*81*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-Heptachlor epoxide	*68*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C6-Hexachlorobenzene	*59*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C12-Methoxychlor	*89*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-Mirex	*71*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-cis Nonachlor	*69*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*
13C10-trans Nonachlor	*74*		*20 - 180*	*11/11/13 13:01*	*11/20/13 05:55*	*1*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	*	29	13	ug/Kg	☼	11/11/13 13:01	12/09/13 18:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C6-alpha BHC	*43*		*20 - 180*	*11/11/13 13:01*	*12/09/13 18:09*	*1*

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.85	0.42	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Arsenic	**7.6**		0.85	0.63	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Barium	**11**		0.42	0.38	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Beryllium	**0.056**	**J**	0.42	0.042	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Cadmium	ND		0.42	0.21	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Chromium	**32**		0.85	0.42	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5

Client Sample ID: ANINI CREEK-1

Lab Sample ID: 320-4779-9
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 67.9

Method: 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	20		0.42	0.042	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Copper	4.4		0.85	0.42	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Lead	0.66		0.42	0.25	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Molybdenum	0.30	J	0.85	0.085	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Nickel	18		0.85	0.42	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Selenium	1.8		0.85	0.42	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Silver	ND		0.42	0.13	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Thallium	ND		0.42	0.21	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Vanadium	25		4.2	1.3	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5
Zinc	9.3		4.2	2.5	mg/Kg	☼	11/18/13 07:00	11/21/13 17:20	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	J	0.059	0.013	mg/Kg	☼	11/04/13 10:40	11/04/13 14:13	1

Client Sample ID: ANINI CREEK-2

Lab Sample ID: 320-4779-10
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 70.4

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		47	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Ametryn	ND		47	10	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Atrazine	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Azinphos-methyl	ND		93	12	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Bolstar	ND		47	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Bromacil	ND		47	10	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Butachlor	ND		47	12	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Chlorpyrifos	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Coumaphos	ND		470	18	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Dichlorvos	ND		93	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Dimethoate	ND		93	12	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Disulfoton	ND		93	8.8	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
EPN	ND		93	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Fensulfothion	ND		470	16	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Fenthion	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Methyl parathion	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Metolachlor	ND		47	9.8	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Metribuzin	ND		47	8.9	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Malathion	ND		47	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Ethyl Parathion	ND		47	12	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Phorate	ND		47	14	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Prometon	ND		47	17	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Prometryn	ND		47	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Propazine	ND		47	7.6	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Simazine	ND		47	9.6	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Stirophos	ND		47	25	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Sulfotepp	ND		47	9.3	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Thionazin	ND		47	13	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Trichloronate	ND		470	9.5	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1

Client Sample ID: ANINI CREEK-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-10

Matrix: Solid
Percent Solids: 70.4

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tokuthion	ND		47	30	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Ethoprop	ND		47	16	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Ronnel	ND		47	10	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Terbutryn	ND		47	12	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Simetryn	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Vernolate	ND		47	23	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Cyanizine	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Cycloate	ND		47	16	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
EPTC	ND		47	9.1	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Butylate	ND		47	18	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Molinate	ND		47	31	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1
Pebulate	ND		47	11	ug/Kg	☼	11/04/13 07:16	11/28/13 06:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*72*		*30 - 164*	*11/04/13 07:16*	*11/28/13 06:32*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		47	4.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Acenaphthylene	ND		47	5.4	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Anthracene	ND		47	4.6	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzo[a]anthracene	ND		47	5.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzo[a]pyrene	ND		47	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzo[b]fluoranthene	ND		47	7.4	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzo[g,h,i]perylene	ND		47	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzo[k]fluoranthene	ND		47	9.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Bis(2-chloroethyl)ether	ND		47	6.3	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Bis(2-chloroethoxy)methane	ND		230	15	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,2'-oxybis[1-chloropropane]	ND		47	5.1	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Bis(2-ethylhexyl) phthalate	ND		470	38	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Bromophenyl phenyl ether	ND		230	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Butyl benzyl phthalate	ND		230	32	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Chloroaniline	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Chloronaphthalene	ND		47	4.9	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Chlorophenyl phenyl ether	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Chrysene	ND		47	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Dibenz(a,h)anthracene	ND		47	5.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Dibenzofuran	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Di-n-butyl phthalate	ND		230	29	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
3,3'-Dichlorobenzidine	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Diethyl phthalate	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Dimethyl phthalate	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4-Dinitrotoluene	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,6-Dinitrotoluene	ND		230	24	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Di-n-octyl phthalate	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Fluoranthene	ND		47	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Fluorene	ND		47	6.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Hexachlorobenzene	ND		47	5.0	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Hexachlorobutadiene	ND		47	5.3	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Hexachlorocyclopentadiene	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5

Client Sample ID: ANINI CREEK-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-10

Matrix: Solid
Percent Solids: 70.4

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND		230	17	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Indeno[1,2,3-cd]pyrene	ND		47	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Isophorone	ND		230	18	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Methylnaphthalene	ND		47	4.2	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Naphthalene	ND		47	4.1	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Nitroaniline	ND		1200	110	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
3-Nitroaniline	ND		1200	97	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Nitroaniline	ND		1200	95	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Nitrobenzene	ND		470	20	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
N-Nitrosodi-n-propylamine	ND		47	5.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
N-Nitrosodiphenylamine	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Phenanthrene	ND		47	7.5	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Pyrene	ND		47	4.8	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Carbazole	ND		47	4.3	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Acetophenone	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Atrazine	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Benzaldehyde	ND	*	230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
1,1'-Biphenyl	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Caprolactam	ND		1200	180	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Chloro-3-methylphenol	ND		230	22	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Chlorophenol	ND		230	19	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Methylphenol	ND		230	16	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Methylphenol, 3 & 4	ND		230	23	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4-Dichlorophenol	ND		47	4.7	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4-Dimethylphenol	ND		230	37	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4-Dinitrophenol	ND		1200	280	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4,6-Dinitro-2-methylphenol	ND		1200	95	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2-Nitrophenol	ND		230	26	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
4-Nitrophenol	ND		1200	86	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Pentachlorophenol	ND		230	21	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
Phenol	ND		47	5.6	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4,5-Trichlorophenol	ND		230	25	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5
2,4,6-Trichlorophenol	ND		230	35	ug/Kg	☼	11/09/13 03:30	11/19/13 15:31	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown Organic Acid	*120*	*T J*	*ug/Kg*	☼	*7.18*		*11/09/13 03:30*	*11/19/13 15:31*	*5*
Unknown	*280*	*T J*	*ug/Kg*	☼	*7.64*		*11/09/13 03:30*	*11/19/13 15:31*	*5*
Unknown	*550*	*T J*	*ug/Kg*	☼	*7.66*		*11/09/13 03:30*	*11/19/13 15:31*	*5*
Unknown	*130*	*T J*	*ug/Kg*	☼	*13.58*		*11/09/13 03:30*	*11/19/13 15:31*	*5*
Unknown	*110*	*T J*	*ug/Kg*	☼	*13.83*		*11/09/13 03:30*	*11/19/13 15:31*	*5*
Unknown	*160*	*T J*	*ug/Kg*	☼	*20.28*		*11/09/13 03:30*	*11/19/13 15:31*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*28 - 108*	*11/09/13 03:30*	*11/19/13 15:31*	*5*
2-Fluorophenol (Surr)	*65*		*28 - 107*	*11/09/13 03:30*	*11/19/13 15:31*	*5*
2,4,6-Tribromophenol (Surr)	*20*	*X*	*21 - 116*	*11/09/13 03:30*	*11/19/13 15:31*	*5*
Nitrobenzene-d5 (Surr)	*65*		*27 - 110*	*11/09/13 03:30*	*11/19/13 15:31*	*5*
Phenol-d5 (Surr)	*57*		*30 - 112*	*11/09/13 03:30*	*11/19/13 15:31*	*5*
Terphenyl-d14 (Surr)	*59*		*21 - 130*	*11/09/13 03:30*	*11/19/13 15:31*	*5*

Client Sample Results

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI CREEK-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-10

Matrix: Solid
Percent Solids: 70.4

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		110	7.8	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
2,4,5-T	ND		28	3.6	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
Silvex (2,4,5-TP)	ND		28	3.0	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
Dalapon	ND		130	10	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
2,4-DB	ND		110	8.7	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
Dicamba	ND		57	6.8	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
Dichlorprop	ND		110	13	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
Dinoseb	ND		17	6.4	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
MCPA	ND		11000	2300	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20
MCPP	ND		11000	2300	ug/Kg	☼	11/09/13 06:46	11/20/13 21:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*48*		*42 - 140*	*11/09/13 06:46*	*11/20/13 21:54*	*20*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4	0.066	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
2,3,7,8-TCDF	ND		1.4	0.074	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,7,8-PeCDD	ND		7.0	0.11	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,7,8-PeCDF	ND		7.0	0.13	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
2,3,4,7,8-PeCDF	ND		7.0	0.15	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,4,7,8-HxCDD	ND		7.0	0.045	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,6,7,8-HxCDD	ND		7.0	0.037	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,7,8,9-HxCDD	ND		7.0	0.037	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,4,7,8-HxCDF	**0.14**	**J q B**	7.0	0.037	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,6,7,8-HxCDF	**0.088**	**J B**	7.0	0.033	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,7,8,9-HxCDF	ND		7.0	0.042	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
2,3,4,6,7,8-HxCDF	ND		7.0	0.033	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,4,6,7,8-HpCDD	**2.3**	**J**	7.0	0.062	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,4,6,7,8-HpCDF	**0.76**	**J B**	7.0	0.040	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
1,2,3,4,7,8,9-HpCDF	ND		7.0	0.060	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
OCDD	**16**	**B**	14	0.15	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
OCDF	**0.79**	**J B**	14	0.063	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total TCDD	**0.32**	**J q B**	1.4	0.066	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total TCDF	ND		1.4	0.074	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total PeCDD	ND		7.0	0.11	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total PeCDF	ND		7.0	0.15	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total HxCDD	**0.43**	**J q**	7.0	0.040	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total HxCDF	**0.46**	**J q B**	7.0	0.036	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total HpCDD	**4.7**	**J B**	7.0	0.062	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1
Total HpCDF	**1.4**	**J B**	7.0	0.050	pg/g	☼	11/11/13 13:07	11/30/13 04:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*82*		*25 - 164*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-2,3,7,8-TCDF	*67*		*24 - 169*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-1,2,3,7,8-PeCDD	*83*		*25 - 181*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-1,2,3,7,8-PeCDF	*70*		*24 - 185*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-2,3,4,7,8-PeCDF	*67*		*21 - 178*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-1,2,3,4,7,8-HxCDD	*79*		*32 - 141*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-1,2,3,6,7,8-HxCDD	*93*		*28 - 130*	*11/11/13 13:07*	*11/30/13 04:17*	*1*
13C-1,2,3,4,7,8-HxCDF	*75*		*26 - 152*	*11/11/13 13:07*	*11/30/13 04:17*	*1*

Client Sample ID: ANINI CREEK-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-10

Matrix: Solid
Percent Solids: 70.4

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,6,7,8-HxCDF	85		26 - 123	11/11/13 13:07	11/30/13 04:17	1
13C-1,2,3,7,8,9-HxCDF	78		29 - 147	11/11/13 13:07	11/30/13 04:17	1
13C-2,3,4,6,7,8-HxCDF	81		28 - 136	11/11/13 13:07	11/30/13 04:17	1
13C-1,2,3,4,6,7,8-HpCDD	91		23 - 140	11/11/13 13:07	11/30/13 04:17	1
13C-1,2,3,4,6,7,8-HpCDF	83		28 - 143	11/11/13 13:07	11/30/13 04:17	1
13C-1,2,3,4,7,8,9-HpCDF	75		26 - 138	11/11/13 13:07	11/30/13 04:17	1
13C-OCDD	76		17 - 157	11/11/13 13:07	11/30/13 04:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	83		35 - 197	11/11/13 13:07	11/30/13 04:17	1

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.056	0.00063	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
alpha-BHC	ND		0.056	0.0014	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
beta-BHC	ND		0.056	0.0016	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
gamma-BHC (Lindane)	ND		0.056	0.0017	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
delta-BHC	ND		0.056	0.0030	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
cis-Chlordane	**0.0021**	**J**	0.056	0.00087	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
trans-Chlordane	**0.0028**	**J B**	0.056	0.00075	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
oxy-Chlordane	ND		0.056	0.00071	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
2,4'-DDD	ND		0.056	0.0055	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
2,4'-DDE	ND		0.056	0.0016	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
2,4'-DDT	ND		0.056	0.0071	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
4,4'-DDD	ND		0.056	0.0052	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
4,4'-DDE	ND		0.056	0.0023	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
4,4'-DDT	ND		0.056	0.0098	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Dieldrin	**0.0028**	**J**	0.056	0.0013	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endosulfan I	ND		0.056	0.0022	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endosulfan II	ND		0.056	0.0037	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endosulfan sulfate	ND		0.056	0.00087	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endrin	ND		0.056	0.0015	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endrin aldehyde	**0.011**	**J q**	0.056	0.0026	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Endrin ketone	ND		0.056	0.0021	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Heptachlor	ND		0.056	0.00030	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Heptachlor epoxide	ND		0.056	0.00054	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Hexachlorobenzene	**0.040**	**J B**	0.056	0.00012	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Methoxychlor	**0.027**	**J B q**	0.056	0.0038	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
Mirex	**0.0011**	**J B q**	0.056	0.00011	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
cis-Nonachlor	ND		0.056	0.0013	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1
trans-Nonachlor	**0.0035**	**J**	0.056	0.00092	ug/Kg	☼	11/11/13 13:01	11/20/13 06:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C12-Aldrin	66		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C6-alpha BHC	65		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C6-beta BHC	83		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C6-gamma BHC	73		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C6-delta BHC	54		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-cis Chlordane	81		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-trans Chlordane	82		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-oxy Chlordane	85		20 - 180	11/11/13 13:01	11/20/13 06:56	1

Client Sample ID: ANINI CREEK-2

Date Collected: 10/28/13 00:00
Date Received: 10/30/13 09:20

Lab Sample ID: 320-4779-10

Matrix: Solid
Percent Solids: 70.4

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C12-2,4'-DDD	94		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-4,4'-DDD	97		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-2,4'-DDE	89		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-4,4'-DDE	83		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-2,4'-DDT	95		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-4,4'-DDT	84		30 - 160	11/11/13 13:01	11/20/13 06:56	1
13C12-Dieldrin	76		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C9-Endosulfan I	85		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C9-Endosulfan II	86		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C9-Endosulfan sulfate	38		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C12-Endrin	69		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C12-Endrin Aldehyde	72		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C11-Endrin Ketone	79		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-Heptachlor	90		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C12-Heptachlor epoxide	79		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C6-Hexachlorobenzene	57		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C12-Methoxychlor	81		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-Mirex	74		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-cis Nonachlor	72		20 - 180	11/11/13 13:01	11/20/13 06:56	1
13C10-trans Nonachlor	82		20 - 180	11/11/13 13:01	11/20/13 06:56	1

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND	* G	40	40	ug/Kg	☼	11/11/13 13:01	12/09/13 18:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-alpha BHC	24		20 - 180	11/11/13 13:01	12/09/13 18:55	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.4	0.72	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Arsenic	**9.1**		1.4	1.1	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Barium	**13**		0.72	0.65	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Beryllium	**0.16**	**J**	0.72	0.072	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Cadmium	**0.37**	**J**	0.72	0.36	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Chromium	**39**		1.4	0.72	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Cobalt	**4.4**		0.72	0.072	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Copper	**4.5**		1.4	0.72	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Lead	**1.1**		0.72	0.43	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Molybdenum	**0.43**	**J**	1.4	0.14	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Nickel	**21**		1.4	0.72	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Selenium	**1.5**		1.4	0.72	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Silver	ND		0.72	0.22	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Thallium	ND		0.72	0.36	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Vanadium	**32**		7.2	2.2	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5
Zinc	**11**		7.2	4.3	mg/Kg	☼	11/18/13 07:00	11/21/13 17:36	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**	**J**	0.055	0.012	mg/Kg	☼	11/04/13 10:40	11/04/13 14:15	1

Surrogate Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TPP							
Lab Sample ID	Client Sample ID	(30-164)							
320-4779-1	HANALEI BAY-1	68							
320-4779-2	HANALEI BAY-2	66							
320-4779-3	ANINI BAY-1	78							
320-4779-4	ANINI BAY-2	62							
320-4779-5	SEALODGE REEF-1	71							
320-4779-6	SEALODGE REEF-2	72							
320-4779-7	HANALEI RIVER-1	62							
320-4779-8	HANALEI RIVER-2	79							
320-4779-9	ANINI CREEK-1	69							
320-4779-10	ANINI CREEK-2	72							
LCS 400-196871/14-A	Lab Control Sample	83							
MB 400-196871/15-A	Method Blank	70							

Surrogate Legend

TPP = Triphenylphosphate

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		FBP	2FP	TBP	NBZ	PHL	TPH		
Lab Sample ID	Client Sample ID	(28-108)	(28-107)	(21-116)	(27-110)	(30-112)	(21-130)		
320-4779-1	HANALEI BAY-1	82	75	56	75	72	93		
320-4779-2	HANALEI BAY-2	71	65	39	63	58	66		
320-4779-3	ANINI BAY-1	73	71	27	75	62	67		
320-4779-4	ANINI BAY-2	69	71	35	72	65	66		
320-4779-5	SEALODGE REEF-1	76	72	31	72	68	79		
320-4779-6	SEALODGE REEF-2	58	62	20 X	61	58	56		
320-4779-7	HANALEI RIVER-1	71	64	38	70	60	79		
320-4779-8	HANALEI RIVER-2	68	67	35	68	58	56		
320-4779-9	ANINI CREEK-1	54	59	17 X	54	53	48		
320-4779-10	ANINI CREEK-2	65	65	20 X	65	57	59		
LCS 180-89262/2-A	Lab Control Sample	76	74	73	79	69	69		
LCSD 180-89262/3-A	Lab Control Sample Dup	74	71	70	73	64	63		
MB 180-89262/1-A	Method Blank	64	65	31	68	61	63		

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Surrogate Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	DCPA1 (42-140)	DCPA2 (42-140)
320-4779-1	HANALEI BAY-1	51	52
320-4779-2	HANALEI BAY-2	60	59
320-4779-3	ANINI BAY-1	53	56
320-4779-4	ANINI BAY-2	63	62
320-4779-5	SEALODGE REEF-1	51	52
320-4779-6	SEALODGE REEF-2	51	48
320-4779-7	HANALEI RIVER-1	46	48
320-4779-8	HANALEI RIVER-2	48	50
320-4779-9	ANINI CREEK-1	49	50
320-4779-10	ANINI CREEK-2	46	48
LCS 180-89270/2-A	Lab Control Sample	69	66
MB 180-89270/1-A	Method Blank	61	62

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	37TCDD (35-197)
320-4779-1	HANALEI BAY-1	84
320-4779-2	HANALEI BAY-2	84
320-4779-3	ANINI BAY-1	86
320-4779-4	ANINI BAY-2	86
320-4779-5	SEALODGE REEF-1	84
320-4779-6	SEALODGE REEF-2	86
320-4779-7	HANALEI RIVER-1	83
320-4779-8	HANALEI RIVER-2	86
320-4779-9	ANINI CREEK-1	83
320-4779-10	ANINI CREEK-2	83
LCS 320-29586/2-A	Lab Control Sample	81
MB 320-29586/1-A	Method Blank	89

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD	TCDF	PeCDD	PeCDF1	PeCDF2	HxCDD1	HxCDD2	HxCDF1
Lab Sample ID	Client Sample ID	(25-164)	(24-169)	(25-181)	(24-185)	(21-178)	(32-141)	(28-130)	(26-152)
320-4779-1	HANALEI BAY-1	65	53	67	56	54	61	74	60
320-4779-2	HANALEI BAY-2	87	73	91	74	74	81	95	78
320-4779-3	ANINI BAY-1	87	72	89	74	72	81	97	82
320-4779-4	ANINI BAY-2	78	65	79	67	65	71	90	74
320-4779-5	SEALODGE REEF-1	81	66	82	69	68	75	92	73
320-4779-6	SEALODGE REEF-2	86	70	87	74	71	78	103	82
320-4779-7	HANALEI RIVER-1	83	70	86	72	70	77	95	77
320-4779-8	HANALEI RIVER-2	87	71	90	75	73	83	100	82
320-4779-9	ANINI CREEK-1	83	68	85	71	69	78	94	78
320-4779-10	ANINI CREEK-2	82	67	83	70	67	79	93	75
MB 320-29586/1-A	Method Blank	90	72	97	81	75	81	99	83

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		HxCDF2	HxCDF4	HxCDF3	HpCDD	HpCDF1	HpCDF2	OCDD
Lab Sample ID	Client Sample ID	(26-123)	(29-147)	(28-136)	(23-140)	(28-143)	(26-138)	(17-157)
320-4779-1	HANALEI BAY-1	66	63	64	75	69	61	63
320-4779-2	HANALEI BAY-2	85	84	82	98	88	82	82
320-4779-3	ANINI BAY-1	85	83	85	98	89	81	82
320-4779-4	ANINI BAY-2	77	75	77	87	80	72	74
320-4779-5	SEALODGE REEF-1	83	76	80	89	82	76	75
320-4779-6	SEALODGE REEF-2	87	83	85	96	88	81	82
320-4779-7	HANALEI RIVER-1	86	79	83	93	87	77	78
320-4779-8	HANALEI RIVER-2	88	83	84	97	89	80	81
320-4779-9	ANINI CREEK-1	81	79	81	93	84	77	77
320-4779-10	ANINI CREEK-2	85	78	81	91	83	75	76
MB 320-29586/1-A	Method Blank	86	85	86	99	89	82	85

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
PeCDF2 = 13C-2,3,4,7,8-PeCDF
HxCDD1 = 13C-1,2,3,4,7,8-HxCDD
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HxCDF2 = 13C-1,2,3,6,7,8-HxCDF
HxCDF4 = 13C-1,2,3,7,8,9-HxCDF
HxCDF3 = 13C-2,3,4,6,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

Isotope Dilution Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD	TCDF	PeCDD	PeCDF1	PeCDF2	HxCDD1	HxCDD2	HxCDF1
Lab Sample ID	Client Sample ID	(20-175)	(22-152)	(21-227)	(21-192)	(13-328)	(21-193)	(25-163)	(19-202)
LCS 320-29586/2-A	Lab Control Sample	85	71	93	78	73	78	99	79

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		HxCDF2	HxCDF4	HxCDF3	HpCDD	HpCDF1	HpCDF2	OCDD
Lab Sample ID	Client Sample ID	(21-159)	(17-205)	(22-176)	(26-166)	(21-158)	(20-186)	(13-199)
LCS 320-29586/2-A	Lab Control Sample	83	83	84	98	87	83	87

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
PeCDF2 = 13C-2,3,4,7,8-PeCDF
HxCDD1 = 13C-1,2,3,4,7,8-HxCDD
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HxCDF2 = 13C-1,2,3,6,7,8-HxCDF
HxCDF4 = 13C-1,2,3,7,8,9-HxCDF
HxCDF3 = 13C-2,3,4,6,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13CAL	13CaBH	13CbBH	13CgBH	13CdBH	13CcCD	13CtCD	13CoCD
Lab Sample ID	Client Sample ID	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)
320-4779-1	HANALEI BAY-1	63	84	93	85	98	91	91	87
320-4779-2	HANALEI BAY-2	45	86	97	89	90	93	95	94
320-4779-3	ANINI BAY-1	73	73	87	76	80	83	84	83
320-4779-4	ANINI BAY-2	71	83	93	86	88	89	91	89
320-4779-5	SEALODGE REEF-1	73	68	81	72	79	78	78	80
320-4779-6	SEALODGE REEF-2	77	68	80	73	84	75	79	84
320-4779-7	HANALEI RIVER-1	66	67	86	72	62	82	84	84
320-4779-8	HANALEI RIVER-2	86	72	88	78	31	85	88	93
320-4779-9	ANINI CREEK-1	71	66	76	67	58	72	74	74
320-4779-10	ANINI CREEK-2	66	65	83	73	54	81	82	85
LCS 320-29583/2-A	Lab Control Sample	89	88	94	89	90	90	90	87
MB 320-29583/1-A	Method Blank	88	87	94	87	94	89	92	87

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C24D	13C44D	13C24E	13C44E	13C24T	13C44T	13CDL	13CES1
Lab Sample ID	Client Sample ID	(30-160)	(30-160)	(30-160)	(30-160)	(30-160)	(30-160)	(20-180)	(20-180)
320-4779-1	HANALEI BAY-1	106	110	101	93	114	114	87	93
320-4779-2	HANALEI BAY-2	109	113	105	96	110	103	88	97
320-4779-3	ANINI BAY-1	99	107	92	83	102	97	77	86
320-4779-4	ANINI BAY-2	102	106	98	90	101	92	85	93
320-4779-5	SEALODGE REEF-1	89	96	86	78	100	103	73	82

Isotope Dilution Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C24D	13C44D	13C24E	13C44E	13C24T	13C44T	13CDL	13CES1
Lab Sample ID	Client Sample ID	(30-160)	(30-160)	(30-160)	(30-160)	(30-160)	(30-160)	(20-180)	(20-180)
320-4779-6	SEALODGE REEF-2	88	90	86	78	94	95	74	81
320-4779-7	HANALEI RIVER-1	108	114	92	90	109	97	84	84
320-4779-8	HANALEI RIVER-2	101	109	93	87	114	106	79	88
320-4779-9	ANINI CREEK-1	86	92	81	75	93	92	70	74
320-4779-10	ANINI CREEK-2	94	97	89	83	95	84	76	85
LCS 320-29583/2-A	Lab Control Sample	98	99	100	88	111	113	84	95
MB 320-29583/1-A	Method Blank	99	100	101	90	107	108	86	92

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		13CES2	13CESS	13CEN	13CEA	13CEK	13CHP	13CHE	13CHCB
Lab Sample ID	Client Sample ID	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)	(20-180)
320-4779-1	HANALEI BAY-1	96	93	87	78	87	97	84	69
320-4779-2	HANALEI BAY-2	99	92	88	90	88	110	88	72
320-4779-3	ANINI BAY-1	89	82	78	68	88	95	78	63
320-4779-4	ANINI BAY-2	96	89	84	74	86	104	85	71
320-4779-5	SEALODGE REEF-1	87	78	72	61	84	94	75	58
320-4779-6	SEALODGE REEF-2	83	79	71	70	79	89	77	58
320-4779-7	HANALEI RIVER-1	93	79	85	93	91	96	78	61
320-4779-8	HANALEI RIVER-2	88	72	77	90	91	107	86	70
320-4779-9	ANINI CREEK-1	82	77	62	78	82	81	68	59
320-4779-10	ANINI CREEK-2	86	38	69	72	79	90	79	57
LCS 320-29583/2-A	Lab Control Sample	89	91	77	89	83	101	83	73
MB 320-29583/1-A	Method Blank	92	90	75	89	83	94	80	72

		Percent Isotope Dilution Recovery (Acceptance Limits)			
		13CMCL	13CMX	13CcNC	13CtNC
Lab Sample ID	Client Sample ID	(20-180)	(20-180)	(20-180)	(20-180)
320-4779-1	HANALEI BAY-1	105	82	83	90
320-4779-2	HANALEI BAY-2	94	81	83	93
320-4779-3	ANINI BAY-1	99	77	75	81
320-4779-4	ANINI BAY-2	89	79	81	87
320-4779-5	SEALODGE REEF-1	100	72	71	79
320-4779-6	SEALODGE REEF-2	84	71	69	77
320-4779-7	HANALEI RIVER-1	93	77	77	81
320-4779-8	HANALEI RIVER-2	100	76	73	82
320-4779-9	ANINI CREEK-1	89	71	69	74
320-4779-10	ANINI CREEK-2	81	74	72	82
LCS 320-29583/2-A	Lab Control Sample	104	78	77	88
MB 320-29583/1-A	Method Blank	93	78	78	90

Surrogate Legend

13CAL = 13C12-Aldrin
13CaBH = 13C6-alpha BHC
13CbBH = 13C6-beta BHC
13CgBH = 13C6-gamma BHC
13CdBH = 13C6-delta BHC
13CcCD = 13C10-cis Chlordane
13CtCD = 13C10-trans Chlordane
13CoCD = 13C10-oxy Chlordane
13C24D = 13C12-2,4'-DDD
13C44D = 13C12-4,4'-DDD

13C24E = 13C12-2,4'-DDE
13C44E = 13C12-4,4'-DDE
13C24T = 13C12-2,4'-DDT
13C44T = 13C12-4,4'-DDT
13CDL = 13C12-Dieldrin
13CES1 = 13C9-Endosulfan I
13CES2 = 13C9-Endosulfan II
13CESS = 13C9-Endosulfan sulfate
13CEN = 13C12-Endrin
13CEA = 13C12-Endrin Aldehyde
13CEK = 13C11-Endrin Ketone
13CHP = 13C10-Heptachlor
13CHE = 13C12-Heptachlor epoxide
13CHCB = 13C6-Hexachlorobenzene
13CMCL = 13C12-Methoxychlor
13CMX = 13C10-Mirex
13CcNC = 13C10-cis Nonachlor
13CtNC = 13C10-trans Nonachlor

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		13CaBH						
Lab Sample ID	**Client Sample ID**	**(20-180)**						
320-4779-1	HANALEI BAY-1	36						
320-4779-2	HANALEI BAY-2	35						
320-4779-3	ANINI BAY-1	30						
320-4779-4	ANINI BAY-2	34						
320-4779-5	SEALODGE REEF-1	30						
320-4779-6	SEALODGE REEF-2	32						
320-4779-7	HANALEI RIVER-1	18 *						
320-4779-8	HANALEI RIVER-2	44						
320-4779-9	ANINI CREEK-1	43						
320-4779-10	ANINI CREEK-2	24						
LCS 320-29583/15-A	Lab Control Sample	33						
MB 320-29583/1-A	Method Blank	38						

Surrogate Legend

13CaBH = 13C6-alpha BHC

Method: 8141A - Organophosphorous Pesticides (GC/MS)

Lab Sample ID: MB 400-196871/15-A
Matrix: Solid
Analysis Batch: 200309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196871

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	ND		33	6.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Ametryn	ND		33	7.3	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Atrazine	ND		33	7.7	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Azinphos-methyl	ND		66	8.7	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Bolstar	ND		33	6.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Bromacil	ND		33	7.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Butachlor	ND		33	8.5	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Chlorpyrifos	ND		33	7.5	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Coumaphos	ND		330	13	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Dichlorvos	ND		66	6.9	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Dimethoate	ND		66	8.2	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Disulfoton	ND		66	6.2	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
EPN	ND		66	8.1	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Fensulfothion	ND		330	11	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Fenthion	ND		33	7.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Methyl parathion	ND		33	7.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Metolachlor	ND		33	6.9	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Metribuzin	ND		33	6.3	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Malathion	ND		33	6.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Ethyl Parathion	ND		33	8.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Phorate	ND		33	10	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Prometon	ND		33	12	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Prometryn	ND		33	6.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Propazine	ND		33	5.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Simazine	ND		33	6.8	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Stirophos	ND		33	18	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Sulfotepp	ND		33	6.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Thionazin	ND		33	9.2	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Trichloronate	ND		330	6.7	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Tokuthion	ND		33	21	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Ethoprop	ND		33	11	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Ronnel	ND		33	7.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Terbutryn	ND		33	8.3	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Simetryn	ND		33	7.9	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Vernolate	ND		33	16	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Cyanizine	ND		33	7.9	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Cycloate	ND		33	11	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
EPTC	ND		33	6.4	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Butylate	ND		33	13	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Molinate	ND		33	22	ug/Kg		11/04/13 07:16	11/28/13 00:28	1
Pebulate	ND		33	7.6	ug/Kg		11/04/13 07:16	11/28/13 00:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Triphenylphosphate	*70*		*30 - 164*	*11/04/13 07:16*	*11/28/13 00:28*	*1*

Method: 8141A - Organophosphorous Pesticides (GC/MS) (Continued)

Lab Sample ID: LCS 400-196871/14-A
Matrix: Solid
Analysis Batch: 200309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alachlor	167	145		ug/Kg		87	40 - 140
Ametryn	167	121		ug/Kg		72	40 - 140
Atrazine	167	139		ug/Kg		83	18 - 131
Azinphos-methyl	167	101		ug/Kg		61	16 - 130
Bolstar	167	133		ug/Kg		80	40 - 156
Bromacil	167	133		ug/Kg		80	40 - 140
Butachlor	167	143		ug/Kg		86	40 - 140
Chlorpyrifos	167	131		ug/Kg		79	22 - 130
Coumaphos	167	147	J	ug/Kg		88	51 - 147
Dichlorvos	167	126		ug/Kg		75	10 - 130
Dimethoate	167	142		ug/Kg		85	38 - 130
Disulfoton	167	126		ug/Kg		76	10 - 134
EPN	167	154		ug/Kg		93	48 - 124
Fensulfothion	167	162	J	ug/Kg		97	43 - 145
Fenthion	167	133		ug/Kg		80	10 - 130
Methyl parathion	167	148		ug/Kg		89	36 - 149
Metolachlor	167	136		ug/Kg		82	28 - 130
Metribuzin	167	124		ug/Kg		74	40 - 140
Malathion	167	137		ug/Kg		82	10 - 141
Ethyl Parathion	167	152		ug/Kg		91	24 - 151
Phorate	167	127		ug/Kg		76	36 - 130
Prometon	167	100		ug/Kg		60	40 - 140
Prometryn	167	132		ug/Kg		79	40 - 140
Propazine	167	143		ug/Kg		86	40 - 140
Simazine	167	145		ug/Kg		87	10 - 181
Stirophos	167	138		ug/Kg		83	36 - 130
Sulfotepp	167	119		ug/Kg		71	13 - 171
Thionazin	172	133		ug/Kg		77	10 - 130
Trichloronate	167	131	J	ug/Kg		79	49 - 161
Tokuthion	167	140		ug/Kg		84	14 - 130
Ethoprop	167	127		ug/Kg		76	30 - 130
Ronnel	167	131		ug/Kg		79	30 - 130
Terbutryn	167	123		ug/Kg		74	30 - 130
Simetryn	167	100		ug/Kg		60	30 - 130
Vernolate	167	126		ug/Kg		75	30 - 130
Cyanizine	167	148		ug/Kg		89	30 - 130
Cycloate	167	130		ug/Kg		78	30 - 130
EPTC	167	122		ug/Kg		73	30 - 130
Butylate	167	122		ug/Kg		73	30 - 130
Molinate	167	125		ug/Kg		75	30 - 130
Pebulate	167	125		ug/Kg		75	30 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Triphenylphosphate	*83*		*30 - 164*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 180-89262/1-A
Matrix: Solid
Analysis Batch: 90305

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89262

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.7	0.64	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Acenaphthylene	ND		6.7	0.76	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Anthracene	ND		6.7	0.65	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Benzo[a]anthracene	ND		6.7	0.84	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Benzo[a]pyrene	ND		6.7	0.67	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Benzo[b]fluoranthene	ND		6.7	1.0	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Benzo[g,h,i]perylene	ND		6.7	0.66	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Benzo[k]fluoranthene	ND		6.7	1.3	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Bis(2-chloroethyl)ether	ND		6.7	0.90	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Bis(2-chloroethoxy)methane	ND		33	2.2	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,2'-oxybis[1-chloropropane]	ND		6.7	0.72	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Bis(2-ethylhexyl) phthalate	6.54	J	67	5.4	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Bromophenyl phenyl ether	ND		33	2.9	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Butyl benzyl phthalate	ND		33	4.6	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Chloroaniline	ND		33	2.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Chloronaphthalene	ND		6.7	0.70	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Chlorophenyl phenyl ether	ND		33	3.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Chrysene	ND		6.7	0.79	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Dibenz(a,h)anthracene	ND		6.7	0.74	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Dibenzofuran	ND		33	3.3	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Di-n-butyl phthalate	ND		33	4.2	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
3,3'-Dichlorobenzidine	ND		33	3.5	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Diethyl phthalate	ND		33	3.6	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Dimethyl phthalate	ND		33	3.6	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4-Dinitrotoluene	ND		33	2.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,6-Dinitrotoluene	ND		33	3.4	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Di-n-octyl phthalate	ND		33	3.5	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Fluoranthene	ND		6.7	0.71	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Fluorene	ND		6.7	0.88	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Hexachlorobenzene	ND		6.7	0.71	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Hexachlorobutadiene	ND		6.7	0.75	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Hexachlorocyclopentadiene	ND		33	3.6	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Hexachloroethane	ND		33	2.4	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Indeno[1,2,3-cd]pyrene	ND		6.7	0.69	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Isophorone	ND		33	2.5	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Methylnaphthalene	ND		6.7	0.60	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Naphthalene	ND		6.7	0.58	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Nitroaniline	ND		170	15	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
3-Nitroaniline	ND		170	14	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Nitroaniline	ND		170	14	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Nitrobenzene	ND		67	2.8	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
N-Nitrosodi-n-propylamine	ND		6.7	0.78	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
N-Nitrosodiphenylamine	ND		33	3.1	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Phenanthrene	ND		6.7	1.1	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Pyrene	ND		6.7	0.67	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Carbazole	ND		6.7	0.61	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Acetophenone	ND		33	2.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Atrazine	ND		33	3.2	ug/Kg		11/09/13 03:30	11/19/13 10:12	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 180-89262/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 90305 — **Prep Batch: 89262**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	ND		33	5.0	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
1,1'-Biphenyl	ND		33	3.0	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Caprolactam	ND		170	25	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Chloro-3-methylphenol	ND		33	3.1	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Chlorophenol	ND		33	2.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Methylphenol	ND		33	2.3	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Methylphenol, 3 & 4	ND		33	3.3	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4-Dichlorophenol	ND		6.7	0.67	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4-Dimethylphenol	ND		33	5.2	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4-Dinitrophenol	ND		170	40	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4,6-Dinitro-2-methylphenol	ND		170	13	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2-Nitrophenol	ND		33	3.7	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
4-Nitrophenol	ND		170	12	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Pentachlorophenol	ND		33	3.0	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
Phenol	ND		6.7	0.79	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4,5-Trichlorophenol	ND		33	3.6	ug/Kg		11/09/13 03:30	11/19/13 10:12	1
2,4,6-Trichlorophenol	ND		33	5.0	ug/Kg		11/09/13 03:30	11/19/13 10:12	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*213*	*T J*	*ug/Kg*		*10.59*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*98.0*	*T J*	*ug/Kg*		*11.27*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*984*	*T J*	*ug/Kg*		*11.76*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*633*	*T J*	*ug/Kg*		*12.56*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*875*	*T J*	*ug/Kg*		*13.13*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*188*	*T J*	*ug/Kg*		*13.73*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*961*	*T J*	*ug/Kg*		*14.15*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*688*	*T J*	*ug/Kg*		*14.81*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*179*	*T J*	*ug/Kg*		*15.52*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*787*	*T J*	*ug/Kg*		*15.99*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*164*	*T J*	*ug/Kg*		*17.45*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*793*	*T J*	*ug/Kg*		*17.93*		*11/09/13 03:30*	*11/19/13 10:12*	*1*
Unknown	*138*	*T J*	*ug/Kg*		*20.02*		*11/09/13 03:30*	*11/19/13 10:12*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*28 - 108*	*11/09/13 03:30*	*11/19/13 10:12*	*1*
2-Fluorophenol (Surr)	*65*		*28 - 107*	*11/09/13 03:30*	*11/19/13 10:12*	*1*
2,4,6-Tribromophenol (Surr)	*31*		*21 - 116*	*11/09/13 03:30*	*11/19/13 10:12*	*1*
Nitrobenzene-d5 (Surr)	*68*		*27 - 110*	*11/09/13 03:30*	*11/19/13 10:12*	*1*
Phenol-d5 (Surr)	*61*		*30 - 112*	*11/09/13 03:30*	*11/19/13 10:12*	*1*
Terphenyl-d14 (Surr)	*63*		*21 - 130*	*11/09/13 03:30*	*11/19/13 10:12*	*1*

Lab Sample ID: LCS 180-89262/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 90305 — **Prep Batch: 89262**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	667	517		ug/Kg		77	42 - 104

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 180-89262/2-A
Matrix: Solid
Analysis Batch: 90305

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	667	509		ug/Kg		76	43 - 117
Anthracene	667	529		ug/Kg		79	43 - 111
Benzo[a]anthracene	667	524		ug/Kg		79	45 - 110
Benzo[a]pyrene	667	519		ug/Kg		78	42 - 114
Benzo[b]fluoranthene	667	465		ug/Kg		70	37 - 108
Benzo[g,h,i]perylene	667	666		ug/Kg		100	35 - 127
Benzo[k]fluoranthene	667	466		ug/Kg		70	39 - 115
Bis(2-chloroethyl)ether	667	457		ug/Kg		68	40 - 100
Bis(2-chloroethoxy)methane	667	468		ug/Kg		70	42 - 103
2,2'-oxybis[1-chloropropane]	667	375		ug/Kg		56	37 - 105
Bis(2-ethylhexyl) phthalate	667	639		ug/Kg		96	41 - 121
4-Bromophenyl phenyl ether	667	522		ug/Kg		78	43 - 111
Butyl benzyl phthalate	667	594		ug/Kg		89	40 - 117
4-Chloroaniline	667	372		ug/Kg		56	33 - 102
2-Chloronaphthalene	667	481		ug/Kg		72	40 - 104
4-Chlorophenyl phenyl ether	667	484		ug/Kg		73	42 - 111
Chrysene	667	550		ug/Kg		82	44 - 108
Dibenz(a,h)anthracene	667	638		ug/Kg		96	34 - 131
Dibenzofuran	667	490		ug/Kg		74	42 - 106
Di-n-butyl phthalate	667	632		ug/Kg		95	44 - 120
3,3'-Dichlorobenzidine	667	545		ug/Kg		82	24 - 113
Diethyl phthalate	667	586		ug/Kg		88	44 - 113
Dimethyl phthalate	667	552		ug/Kg		83	44 - 111
2,4-Dinitrotoluene	667	561		ug/Kg		84	48 - 118
2,6-Dinitrotoluene	667	540		ug/Kg		81	47 - 119
Di-n-octyl phthalate	667	574		ug/Kg		86	35 - 129
Fluoranthene	667	537		ug/Kg		81	40 - 118
Fluorene	667	503		ug/Kg		75	43 - 110
Hexachlorobenzene	667	503		ug/Kg		75	42 - 110
Hexachlorobutadiene	667	483		ug/Kg		72	40 - 114
Hexachlorocyclopentadiene	667	186		ug/Kg		28	10 - 150
Hexachloroethane	667	448		ug/Kg		67	40 - 102
Indeno[1,2,3-cd]pyrene	667	629		ug/Kg		94	34 - 130
Isophorone	667	527		ug/Kg		79	39 - 114
2-Methylnaphthalene	667	460		ug/Kg		69	43 - 105
Naphthalene	667	476		ug/Kg		71	42 - 104
2-Nitroaniline	667	575		ug/Kg		86	41 - 118
3-Nitroaniline	667	492		ug/Kg		74	38 - 116
4-Nitroaniline	667	549		ug/Kg		82	37 - 120
Nitrobenzene	667	513		ug/Kg		77	40 - 109
N-Nitrosodi-n-propylamine	667	476		ug/Kg		71	42 - 108
N-Nitrosodiphenylamine	667	583		ug/Kg		88	41 - 110
Phenanthrene	667	499		ug/Kg		75	41 - 107
Pyrene	667	451		ug/Kg		68	39 - 113
Carbazole	667	540		ug/Kg		81	42 - 114
Acetophenone	667	434		ug/Kg		65	30 - 150
Atrazine	667	599		ug/Kg		90	30 - 150
Benzaldehyde	667	80.7	*	ug/Kg		12	30 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 180-89262/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 90305 — **Prep Batch: 89262**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	516		ug/Kg		77	30 - 150
Caprolactam	667	505		ug/Kg		76	30 - 150
4-Chloro-3-methylphenol	667	497		ug/Kg		75	43 - 110
2-Chlorophenol	667	473		ug/Kg		71	40 - 105
2-Methylphenol	667	461		ug/Kg		69	41 - 104
Methylphenol, 3 & 4	667	437		ug/Kg		66	43 - 107
2,4-Dichlorophenol	667	501		ug/Kg		75	44 - 110
2,4-Dimethylphenol	667	496		ug/Kg		74	39 - 106
2,4-Dinitrophenol	1330	312		ug/Kg		23	19 - 140
4,6-Dinitro-2-methylphenol	1330	813		ug/Kg		61	28 - 130
2-Nitrophenol	667	524		ug/Kg		79	45 - 112
4-Nitrophenol	1330	1180		ug/Kg		88	27 - 131
Pentachlorophenol	1330	550		ug/Kg		41	18 - 125
Phenol	667	441		ug/Kg		66	39 - 105
2,4,5-Trichlorophenol	667	524		ug/Kg		79	42 - 110
2,4,6-Trichlorophenol	667	504		ug/Kg		76	43 - 111

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*28 - 108*
2-Fluorophenol (Surr)	*74*		*28 - 107*
2,4,6-Tribromophenol (Surr)	*73*		*21 - 116*
Nitrobenzene-d5 (Surr)	*79*		*27 - 110*
Phenol-d5 (Surr)	*69*		*30 - 112*
Terphenyl-d14 (Surr)	*69*		*21 - 130*

Lab Sample ID: LCSD 180-89262/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 90305 — **Prep Batch: 89262**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	667	517		ug/Kg		77	42 - 104	0	34
Acenaphthylene	667	510		ug/Kg		76	43 - 117	0	36
Anthracene	667	521		ug/Kg		78	43 - 111	2	35
Benzo[a]anthracene	667	508		ug/Kg		76	45 - 110	3	31
Benzo[a]pyrene	667	499		ug/Kg		75	42 - 114	4	31
Benzo[b]fluoranthene	667	447		ug/Kg		67	37 - 108	4	28
Benzo[g,h,i]perylene	667	635		ug/Kg		95	35 - 127	5	21
Benzo[k]fluoranthene	667	455		ug/Kg		68	39 - 115	2	42
Bis(2-chloroethyl)ether	667	427		ug/Kg		64	40 - 100	7	33
Bis(2-chloroethoxy)methane	667	443		ug/Kg		66	42 - 103	5	35
2,2'-oxybis[1-chloropropane]	667	341		ug/Kg		51	37 - 105	9	31
Bis(2-ethylhexyl) phthalate	667	615		ug/Kg		92	41 - 121	4	31
4-Bromophenyl phenyl ether	667	494		ug/Kg		74	43 - 111	6	20
Butyl benzyl phthalate	667	579		ug/Kg		87	40 - 117	3	34
4-Chloroaniline	667	360		ug/Kg		54	33 - 102	3	28
2-Chloronaphthalene	667	482		ug/Kg		72	40 - 104	0	34
4-Chlorophenyl phenyl ether	667	477		ug/Kg		71	42 - 111	2	37
Chrysene	667	517		ug/Kg		78	44 - 108	6	31

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 180-89262/3-A | **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 90305 | **Prep Batch: 89262**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	667	608		ug/Kg		91	34 - 131	5	32
Dibenzofuran	667	491		ug/Kg		74	42 - 106	0	33
Di-n-butyl phthalate	667	642		ug/Kg		96	44 - 120	2	34
3,3'-Dichlorobenzidine	667	535		ug/Kg		80	24 - 113	2	30
Diethyl phthalate	667	581		ug/Kg		87	44 - 113	1	32
Dimethyl phthalate	667	549		ug/Kg		82	44 - 111	1	34
2,4-Dinitrotoluene	667	573		ug/Kg		86	48 - 118	2	33
2,6-Dinitrotoluene	667	547		ug/Kg		82	47 - 119	1	30
Di-n-octyl phthalate	667	540		ug/Kg		81	35 - 129	6	33
Fluoranthene	667	552		ug/Kg		83	40 - 118	3	23
Fluorene	667	494		ug/Kg		74	43 - 110	2	37
Hexachlorobenzene	667	494		ug/Kg		74	42 - 110	2	29
Hexachlorobutadiene	667	484		ug/Kg		73	40 - 114	0	25
Hexachlorocyclopentadiene	667	222		ug/Kg		33	10 - 150	17	33
Hexachloroethane	667	424		ug/Kg		64	40 - 102	5	34
Indeno[1,2,3-cd]pyrene	667	597		ug/Kg		89	34 - 130	5	30
Isophorone	667	508		ug/Kg		76	39 - 114	4	33
2-Methylnaphthalene	667	449		ug/Kg		67	43 - 105	2	34
Naphthalene	667	466		ug/Kg		70	42 - 104	2	25
2-Nitroaniline	667	578		ug/Kg		87	41 - 118	0	33
3-Nitroaniline	667	480		ug/Kg		72	38 - 116	2	27
4-Nitroaniline	667	542		ug/Kg		81	37 - 120	1	31
Nitrobenzene	667	487		ug/Kg		73	40 - 109	5	31
N-Nitrosodi-n-propylamine	667	440		ug/Kg		66	42 - 108	8	32
N-Nitrosodiphenylamine	667	567		ug/Kg		85	41 - 110	3	32
Phenanthrene	667	490		ug/Kg		73	41 - 107	2	20
Pyrene	667	439		ug/Kg		66	39 - 113	3	28
Carbazole	667	533		ug/Kg		80	42 - 114	1	35
Acetophenone	667	401		ug/Kg		60	30 - 150	8	40
Atrazine	667	587		ug/Kg		88	30 - 150	2	40
Benzaldehyde	667	93.2	*	ug/Kg		14	30 - 150	14	40
1,1'-Biphenyl	667	504		ug/Kg		76	30 - 150	2	40
Caprolactam	667	500		ug/Kg		75	30 - 150	1	40
4-Chloro-3-methylphenol	667	480		ug/Kg		72	43 - 110	4	31
2-Chlorophenol	667	453		ug/Kg		68	40 - 105	4	37
2-Methylphenol	667	432		ug/Kg		65	41 - 104	7	37
Methylphenol, 3 & 4	667	415		ug/Kg		62	43 - 107	5	36
2,4-Dichlorophenol	667	477		ug/Kg		72	44 - 110	5	27
2,4-Dimethylphenol	667	480		ug/Kg		72	39 - 106	3	42
2,4-Dinitrophenol	1330	322		ug/Kg		24	19 - 140	3	43
4,6-Dinitro-2-methylphenol	1330	821		ug/Kg		62	28 - 130	1	35
2-Nitrophenol	667	510		ug/Kg		77	45 - 112	3	30
4-Nitrophenol	1330	1190		ug/Kg		90	27 - 131	2	33
Pentachlorophenol	1330	542		ug/Kg		41	18 - 125	1	34
Phenol	667	417		ug/Kg		63	39 - 105	6	40
2,4,5-Trichlorophenol	667	526		ug/Kg		79	42 - 110	0	35
2,4,6-Trichlorophenol	667	502		ug/Kg		75	43 - 111	0	36

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 180-89262/3-A
Matrix: Solid
Analysis Batch: 90305

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89262

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	74		28 - 108
2-Fluorophenol (Surr)	71		28 - 107
2,4,6-Tribromophenol (Surr)	70		21 - 116
Nitrobenzene-d5 (Surr)	73		27 - 110
Phenol-d5 (Surr)	64		30 - 112
Terphenyl-d14 (Surr)	63		21 - 130

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-89270/1-A
Matrix: Solid
Analysis Batch: 90440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		80	5.5	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
2,4,5-T	ND		20	2.5	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
Silvex (2,4,5-TP)	ND		20	2.1	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
Dalapon	ND		90	7.1	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
2,4-DB	ND		80	6.1	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
Dicamba	ND		40	4.8	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
Dichlorprop	ND		80	9.5	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
Dinoseb	ND		12	4.5	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
MCPA	ND		8000	1600	ug/Kg		11/09/13 06:46	11/20/13 18:40	20
MCPP	ND		8000	1600	ug/Kg		11/09/13 06:46	11/20/13 18:40	20

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	62		42 - 140	11/09/13 06:46	11/20/13 18:40	20

Lab Sample ID: LCS 180-89270/2-A
Matrix: Solid
Analysis Batch: 90440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	160	81.1		ug/Kg		51	30 - 140
2,4,5-T	160	95.1		ug/Kg		59	30 - 140
Silvex (2,4,5-TP)	160	118		ug/Kg		74	40 - 130
Dalapon	160	59.7	J	ug/Kg		37	36 - 120
2,4-DB	160	159		ug/Kg		100	34 - 140
Dicamba	160	106		ug/Kg		66	50 - 140
Dichlorprop	160	118		ug/Kg		74	50 - 130
Dinoseb	160	16.6		ug/Kg		10	10 - 140
MCPA	24000	13600		ug/Kg		57	50 - 120
MCPP	24000	18900		ug/Kg		79	50 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	69		42 - 140

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-29586/1-A
Matrix: Solid
Analysis Batch: 30970

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29586

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0	0.039	pg/g		11/11/13 13:07	11/29/13 20:22	1
2,3,7,8-TCDF	ND		1.0	0.044	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,7,8-PeCDD	ND		5.0	0.080	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,7,8-PeCDF	ND		5.0	0.092	pg/g		11/11/13 13:07	11/29/13 20:22	1
2,3,4,7,8-PeCDF	ND		5.0	0.11	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,4,7,8-HxCDD	ND		5.0	0.030	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,6,7,8-HxCDD	ND		5.0	0.024	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,7,8,9-HxCDD	ND		5.0	0.024	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,4,7,8-HxCDF	0.0801	J	5.0	0.026	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,6,7,8-HxCDF	0.0274	J	5.0	0.022	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,7,8,9-HxCDF	ND		5.0	0.028	pg/g		11/11/13 13:07	11/29/13 20:22	1
2,3,4,6,7,8-HxCDF	ND		5.0	0.022	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.026	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,4,6,7,8-HpCDF	0.188	J	5.0	0.026	pg/g		11/11/13 13:07	11/29/13 20:22	1
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.037	pg/g		11/11/13 13:07	11/29/13 20:22	1
OCDD	0.290	J	10	0.029	pg/g		11/11/13 13:07	11/29/13 20:22	1
OCDF	0.429	J	10	0.041	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total TCDD	0.0638	J	1.0	0.039	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total TCDF	ND		1.0	0.044	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total PeCDD	ND		5.0	0.080	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total PeCDF	ND		5.0	0.11	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total HxCDD	ND		5.0	0.030	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total HxCDF	0.108	J	5.0	0.024	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total HpCDD	0.0752	J q	5.0	0.026	pg/g		11/11/13 13:07	11/29/13 20:22	1
Total HpCDF	0.188	J	5.0	0.031	pg/g		11/11/13 13:07	11/29/13 20:22	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*90*		*25 - 164*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-2,3,7,8-TCDF	*72*		*24 - 169*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,7,8-PeCDD	*97*		*25 - 181*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,7,8-PeCDF	*81*		*24 - 185*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*21 - 178*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*81*		*32 - 141*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*99*		*28 - 130*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*83*		*26 - 152*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*86*		*26 - 123*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*85*		*29 - 147*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*86*		*28 - 136*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*99*		*23 - 140*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*89*		*28 - 143*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*82*		*26 - 138*	*11/11/13 13:07*	*11/29/13 20:22*	*1*
13C-OCDD	*85*		*17 - 157*	*11/11/13 13:07*	*11/29/13 20:22*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*89*		*35 - 197*	*11/11/13 13:07*	*11/29/13 20:22*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-29586/2-A
Matrix: Solid
Analysis Batch: 30970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	17.7		pg/g		89	67 - 158
2,3,7,8-TCDF	20.0	19.2		pg/g		96	75 - 158
1,2,3,7,8-PeCDD	100	89.6		pg/g		90	70 - 142
1,2,3,7,8-PeCDF	100	92.0		pg/g		92	80 - 134
2,3,4,7,8-PeCDF	100	96.1		pg/g		96	68 - 160
1,2,3,4,7,8-HxCDD	100	108		pg/g		108	70 - 164
1,2,3,6,7,8-HxCDD	100	86.8		pg/g		87	76 - 134
1,2,3,7,8,9-HxCDD	100	97.9		pg/g		98	64 - 162
1,2,3,4,7,8-HxCDF	100	103		pg/g		103	72 - 134
1,2,3,6,7,8-HxCDF	100	99.9		pg/g		100	84 - 130
1,2,3,7,8,9-HxCDF	100	100		pg/g		100	78 - 130
2,3,4,6,7,8-HxCDF	100	98.7		pg/g		99	70 - 156
1,2,3,4,6,7,8-HpCDD	100	92.2		pg/g		92	70 - 140
1,2,3,4,6,7,8-HpCDF	100	96.1		pg/g		96	82 - 122
1,2,3,4,7,8,9-HpCDF	100	98.0		pg/g		98	78 - 138
OCDD	200	189		pg/g		95	78 - 144
OCDF	200	186		pg/g		93	63 - 170

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*85*		*20 - 175*
13C-2,3,7,8-TCDF	*71*		*22 - 152*
13C-1,2,3,7,8-PeCDD	*93*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*78*		*21 - 192*
13C-2,3,4,7,8-PeCDF	*73*		*13 - 328*
13C-1,2,3,4,7,8-HxCDD	*78*		*21 - 193*
13C-1,2,3,6,7,8-HxCDD	*99*		*25 - 163*
13C-1,2,3,4,7,8-HxCDF	*79*		*19 - 202*
13C-1,2,3,6,7,8-HxCDF	*83*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*83*		*17 - 205*
13C-2,3,4,6,7,8-HxCDF	*84*		*22 - 176*
13C-1,2,3,4,6,7,8-HpCDD	*98*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*87*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*83*		*20 - 186*
13C-OCDD	*87*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*81*		*35 - 197*

Method: 1699 - Toxaphene, Low level (HRGC/HRMS)

Lab Sample ID: MB 320-29583/1-A
Matrix: Solid
Analysis Batch: 31328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29583

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		20	12	ug/Kg		11/11/13 13:01	12/06/13 12:01	1

Method: 1699 - Toxaphene, Low level (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-29583/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31328 — **Prep Batch: 29583**

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-alpha BHC	38		20 - 180	11/11/13 13:01	12/06/13 12:01	1

Lab Sample ID: LCS 320-29583/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 31328 — **Prep Batch: 29583**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toxaphene			800	1650	*	ug/Kg		206	20 - 180		

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C6-alpha BHC	33		20 - 180

Method: 1699 - Pesticides, Low level (HRGC/HRMS)

Lab Sample ID: MB 320-29583/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30137 — **Prep Batch: 29583**

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.040	0.00045	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
alpha-BHC	ND		0.040	0.00074	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
beta-BHC	ND		0.040	0.00094	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
gamma-BHC (Lindane)	0.00638	J	0.040	0.00096	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
delta-BHC	0.0487		0.040	0.0012	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
cis-Chlordane	ND		0.040	0.00095	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
trans-Chlordane	0.00200	J	0.040	0.00085	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
oxy-Chlordane	ND		0.040	0.00063	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
2,4'-DDD	ND		0.040	0.0017	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
2,4'-DDE	ND		0.040	0.00087	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
2,4'-DDT	ND		0.040	0.0023	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
4,4'-DDD	ND		0.040	0.0019	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
4,4'-DDE	ND		0.040	0.0050	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
4,4'-DDT	ND		0.040	0.0027	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Dieldrin	ND		0.040	0.0011	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endosulfan I	ND		0.040	0.0024	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endosulfan II	ND		0.040	0.0033	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endosulfan sulfate	ND		0.040	0.00075	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endrin	ND		0.040	0.0014	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endrin aldehyde	ND		0.040	0.0015	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Endrin ketone	ND		0.040	0.0014	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Heptachlor	0.000558	J q	0.040	0.00023	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Heptachlor epoxide	ND		0.040	0.00031	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Hexachlorobenzene	0.0228	J	0.040	0.000073	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Methoxychlor	0.0166	J q	0.040	0.0032	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
Mirex	0.000997	J q	0.040	0.00012	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
cis-Nonachlor	ND		0.040	0.0011	ug/Kg		11/11/13 13:01	11/19/13 03:15	1
trans-Nonachlor	ND		0.040	0.0010	ug/Kg		11/11/13 13:01	11/19/13 03:15	1

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-29583/1-A
Matrix: Solid
Analysis Batch: 30137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29583

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C12-Aldrin	88		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C6-alpha BHC	87		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C6-beta BHC	94		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C6-gamma BHC	87		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C6-delta BHC	94		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-cis Chlordane	89		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-trans Chlordane	92		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-oxy Chlordane	87		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C12-2,4'-DDD	99		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-4,4'-DDD	100		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-2,4'-DDE	101		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-4,4'-DDE	90		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-2,4'-DDT	107		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-4,4'-DDT	108		30 - 160	11/11/13 13:01	11/19/13 03:15	1
13C12-Dieldrin	86		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C9-Endosulfan I	92		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C9-Endosulfan II	92		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C9-Endosulfan sulfate	90		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C12-Endrin	75		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C12-Endrin Aldehyde	89		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C11-Endrin Ketone	83		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-Heptachlor	94		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C12-Heptachlor epoxide	80		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C6-Hexachlorobenzene	72		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C12-Methoxychlor	93		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-Mirex	78		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-cis Nonachlor	78		20 - 180	11/11/13 13:01	11/19/13 03:15	1
13C10-trans Nonachlor	90		20 - 180	11/11/13 13:01	11/19/13 03:15	1

Lab Sample ID: LCS 320-29583/2-A
Matrix: Solid
Analysis Batch: 30137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29583

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	2.00	2.12		ug/Kg		106	50 - 150
alpha-BHC	2.00	2.12		ug/Kg		106	50 - 150
beta-BHC	2.00	2.12		ug/Kg		106	50 - 150
gamma-BHC (Lindane)	2.00	2.10		ug/Kg		105	50 - 150
delta-BHC	2.00	2.05		ug/Kg		102	50 - 150
cis-Chlordane	2.00	2.07		ug/Kg		103	50 - 150
trans-Chlordane	2.00	2.10		ug/Kg		105	50 - 150
oxy-Chlordane	2.00	1.98		ug/Kg		99	50 - 150
2,4'-DDD	2.00	2.15		ug/Kg		107	50 - 150
2,4'-DDE	2.00	2.14		ug/Kg		107	50 - 150
2,4'-DDT	2.00	2.15		ug/Kg		108	50 - 150
4,4'-DDD	2.00	2.16		ug/Kg		108	50 - 150
4,4'-DDE	2.00	2.11		ug/Kg		105	50 - 150
4,4'-DDT	2.00	2.13		ug/Kg		107	50 - 150

Method: 1699 - Pesticides, Low level (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-29583/2-A
Matrix: Solid
Analysis Batch: 30137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29583

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dieldrin	2.00	2.12		ug/Kg		106	50 - 150
Endosulfan I	2.00	1.97		ug/Kg		98	50 - 150
Endosulfan II	2.00	2.01		ug/Kg		100	50 - 150
Endosulfan sulfate	2.00	2.04		ug/Kg		102	50 - 150
Endrin	2.00	2.06		ug/Kg		103	50 - 150
Endrin aldehyde	2.00	1.87		ug/Kg		93	50 - 170
Endrin ketone	2.00	2.00		ug/Kg		100	50 - 170
Heptachlor	2.00	2.07		ug/Kg		103	50 - 150
Heptachlor epoxide	2.00	2.05		ug/Kg		102	50 - 150
Hexachlorobenzene	2.00	2.07		ug/Kg		103	50 - 150
Methoxychlor	2.00	1.97		ug/Kg		98	50 - 150
Mirex	2.00	2.04		ug/Kg		102	50 - 150
cis-Nonachlor	2.00	2.11		ug/Kg		105	50 - 150
trans-Nonachlor	2.00	2.09		ug/Kg		105	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C12-Aldrin	*89*		*20 - 180*
13C6-alpha BHC	*88*		*20 - 180*
13C6-beta BHC	*94*		*20 - 180*
13C6-gamma BHC	*89*		*20 - 180*
13C6-delta BHC	*90*		*20 - 180*
13C10-cis Chlordane	*90*		*20 - 180*
13C10-trans Chlordane	*90*		*20 - 180*
13C10-oxy Chlordane	*87*		*20 - 180*
13C12-2,4'-DDD	*98*		*30 - 160*
13C12-4,4'-DDD	*99*		*30 - 160*
13C12-2,4'-DDE	*100*		*30 - 160*
13C12-4,4'-DDE	*88*		*30 - 160*
13C12-2,4'-DDT	*111*		*30 - 160*
13C12-4,4'-DDT	*113*		*30 - 160*
13C12-Dieldrin	*84*		*20 - 180*
13C9-Endosulfan I	*95*		*20 - 180*
13C9-Endosulfan II	*89*		*20 - 180*
13C9-Endosulfan sulfate	*91*		*20 - 180*
13C12-Endrin	*77*		*20 - 180*
13C12-Endrin Aldehyde	*89*		*20 - 180*
13C11-Endrin Ketone	*83*		*20 - 180*
13C10-Heptachlor	*101*		*20 - 180*
13C12-Heptachlor epoxide	*83*		*20 - 180*
13C6-Hexachlorobenzene	*73*		*20 - 180*
13C12-Methoxychlor	*104*		*20 - 180*
13C10-Mirex	*78*		*20 - 180*
13C10-cis Nonachlor	*77*		*20 - 180*
13C10-trans Nonachlor	*88*		*20 - 180*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-30033/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30453 — **Prep Batch: 30033**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.20	0.10	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Arsenic	ND		0.20	0.15	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Barium	ND		0.10	0.090	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Beryllium	ND		0.10	0.010	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Cadmium	ND		0.10	0.050	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Chromium	ND		0.20	0.10	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Cobalt	ND		0.10	0.010	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Copper	ND		0.20	0.10	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Lead	ND		0.10	0.060	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Molybdenum	ND		0.20	0.020	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Nickel	ND		0.20	0.10	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Selenium	ND		0.20	0.10	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Silver	ND		0.10	0.030	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Thallium	ND		0.10	0.050	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Vanadium	ND		1.0	0.30	mg/Kg		11/18/13 07:00	11/21/13 14:42	1
Zinc	ND		1.0	0.60	mg/Kg		11/18/13 07:00	11/21/13 14:42	1

Lab Sample ID: LCS 320-30033/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30453 — **Prep Batch: 30033**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	20.7		mg/Kg		104	80 - 120
Arsenic	20.0	21.4		mg/Kg		107	80 - 120
Barium	20.0	20.3		mg/Kg		101	80 - 120
Beryllium	20.0	23.3		mg/Kg		117	80 - 120
Cadmium	20.0	21.2		mg/Kg		106	80 - 120
Chromium	20.0	19.4		mg/Kg		97	80 - 120
Cobalt	20.0	18.9		mg/Kg		95	80 - 120
Copper	20.0	20.3		mg/Kg		102	80 - 120
Lead	20.0	20.4		mg/Kg		102	80 - 120
Molybdenum	20.0	19.5		mg/Kg		97	80 - 120
Nickel	20.0	19.6		mg/Kg		98	80 - 120
Selenium	20.0	21.9		mg/Kg		109	80 - 120
Silver	5.00	5.17		mg/Kg		103	80 - 120
Thallium	5.00	5.13		mg/Kg		103	80 - 120
Vanadium	20.0	18.8		mg/Kg		94	80 - 120
Zinc	20.0	21.6		mg/Kg		108	80 - 120

Lab Sample ID: 320-4779-10 MS — **Client Sample ID: ANINI CREEK-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30453 — **Prep Batch: 30033**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		27.6	25.5		mg/Kg	☼	93	80 - 120
Arsenic	9.1		27.6	36.9		mg/Kg	☼	101	80 - 120
Barium	13		27.6	39.9		mg/Kg	☼	99	80 - 120
Beryllium	0.16	J	27.6	20.8	F	mg/Kg	☼	75	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 320-4779-10 MS — **Client Sample ID: ANINI CREEK-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30453 — **Prep Batch: 30033**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.37	J	27.6	25.1		mg/Kg	☼	90	80 - 120
Chromium	39		27.6	63.2		mg/Kg	☼	89	80 - 120
Cobalt	4.4		27.6	32.9		mg/Kg	☼	103	80 - 120
Copper	4.5		27.6	30.1		mg/Kg	☼	93	80 - 120
Lead	1.1		27.6	25.2		mg/Kg	☼	88	80 - 120
Molybdenum	0.43	J	27.6	30.7		mg/Kg	☼	110	80 - 120
Nickel	21		27.6	44.9		mg/Kg	☼	88	80 - 120
Selenium	1.5		27.6	27.5		mg/Kg	☼	95	80 - 120
Silver	ND		6.89	5.83		mg/Kg	☼	85	80 - 120
Thallium	ND		6.89	6.41		mg/Kg	☼	93	80 - 120
Vanadium	32		27.6	61.2		mg/Kg	☼	107	80 - 120
Zinc	11		27.6	34.6		mg/Kg	☼	86	80 - 120

Lab Sample ID: 320-4779-10 MSD — **Client Sample ID: ANINI CREEK-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30453 — **Prep Batch: 30033**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		27.6	24.9		mg/Kg	☼	90	80 - 120	2	20
Arsenic	9.1		27.6	35.0		mg/Kg	☼	94	80 - 120	5	20
Barium	13		27.6	38.5		mg/Kg	☼	94	80 - 120	3	20
Beryllium	0.16	J	27.6	21.0	F	mg/Kg	☼	76	80 - 120	1	20
Cadmium	0.37	J	27.6	25.2		mg/Kg	☼	90	80 - 120	1	20
Chromium	39		27.6	58.7	F	mg/Kg	☼	73	80 - 120	7	20
Cobalt	4.4		27.6	32.2		mg/Kg	☼	101	80 - 120	2	20
Copper	4.5		27.6	29.5		mg/Kg	☼	91	80 - 120	2	20
Lead	1.1		27.6	25.2		mg/Kg	☼	87	80 - 120	0	20
Molybdenum	0.43	J	27.6	30.4		mg/Kg	☼	109	80 - 120	1	20
Nickel	21		27.6	42.3	F	mg/Kg	☼	79	80 - 120	6	20
Selenium	1.5		27.6	29.1		mg/Kg	☼	100	80 - 120	6	20
Silver	ND		6.89	5.87		mg/Kg	☼	85	80 - 120	1	47
Thallium	ND		6.89	6.34		mg/Kg	☼	92	80 - 120	1	20
Vanadium	32		27.6	56.5		mg/Kg	☼	90	80 - 120	8	20
Zinc	11		27.6	33.5		mg/Kg	☼	83	80 - 120	3	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 320-29038/11-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29079 — **Prep Batch: 29038**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.040	0.0086	mg/Kg		11/04/13 10:40	11/04/13 13:49	1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 320-29038/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29079 — **Prep Batch: 29038**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0794	0.0817		mg/Kg		103	86 - 114

Lab Sample ID: 320-4779-10 MS — **Client Sample ID: ANINI CREEK-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29079 — **Prep Batch: 29038**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.024	J	0.361	0.366		mg/Kg	☼	95	86 - 114

Lab Sample ID: 320-4779-10 MSD — **Client Sample ID: ANINI CREEK-2**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 29079 — **Prep Batch: 29038**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.024	J	0.343	0.343		mg/Kg	☼	93	86 - 114	6	17

GC/MS Semi VOA

Prep Batch: 89262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	3541	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	3541	
320-4779-3	ANINI BAY-1	Total/NA	Solid	3541	
320-4779-4	ANINI BAY-2	Total/NA	Solid	3541	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	3541	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	3541	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	3541	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	3541	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	3541	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	3541	
LCS 180-89262/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 180-89262/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	
MB 180-89262/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 90305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	8270D LL	89262
320-4779-2	HANALEI BAY-2	Total/NA	Solid	8270D LL	89262
320-4779-3	ANINI BAY-1	Total/NA	Solid	8270D LL	89262
320-4779-4	ANINI BAY-2	Total/NA	Solid	8270D LL	89262
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	8270D LL	89262
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	8270D LL	89262
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	8270D LL	89262
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	8270D LL	89262
320-4779-9	ANINI CREEK-1	Total/NA	Solid	8270D LL	89262
320-4779-10	ANINI CREEK-2	Total/NA	Solid	8270D LL	89262
LCS 180-89262/2-A	Lab Control Sample	Total/NA	Solid	8270D LL	89262
LCSD 180-89262/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D LL	89262
MB 180-89262/1-A	Method Blank	Total/NA	Solid	8270D LL	89262

Prep Batch: 196871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	3550B	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	3550B	
320-4779-3	ANINI BAY-1	Total/NA	Solid	3550B	
320-4779-4	ANINI BAY-2	Total/NA	Solid	3550B	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	3550B	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	3550B	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	3550B	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	3550B	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	3550B	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	3550B	
LCS 400-196871/14-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 400-196871/15-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 200309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	8141A	196871
320-4779-2	HANALEI BAY-2	Total/NA	Solid	8141A	196871
320-4779-3	ANINI BAY-1	Total/NA	Solid	8141A	196871
320-4779-4	ANINI BAY-2	Total/NA	Solid	8141A	196871

GC/MS Semi VOA (Continued)

Analysis Batch: 200309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	8141A	196871
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	8141A	196871
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	8141A	196871
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	8141A	196871
320-4779-9	ANINI CREEK-1	Total/NA	Solid	8141A	196871
320-4779-10	ANINI CREEK-2	Total/NA	Solid	8141A	196871
LCS 400-196871/14-A	Lab Control Sample	Total/NA	Solid	8141A	196871
MB 400-196871/15-A	Method Blank	Total/NA	Solid	8141A	196871

GC Semi VOA

Prep Batch: 89270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	8151A	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	8151A	
320-4779-3	ANINI BAY-1	Total/NA	Solid	8151A	
320-4779-4	ANINI BAY-2	Total/NA	Solid	8151A	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	8151A	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	8151A	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	8151A	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	8151A	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	8151A	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	8151A	
LCS 180-89270/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 180-89270/1-A	Method Blank	Total/NA	Solid	8151A	

Analysis Batch: 90440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	8151A	89270
320-4779-2	HANALEI BAY-2	Total/NA	Solid	8151A	89270
320-4779-3	ANINI BAY-1	Total/NA	Solid	8151A	89270
320-4779-4	ANINI BAY-2	Total/NA	Solid	8151A	89270
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	8151A	89270
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	8151A	89270
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	8151A	89270
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	8151A	89270
320-4779-9	ANINI CREEK-1	Total/NA	Solid	8151A	89270
320-4779-10	ANINI CREEK-2	Total/NA	Solid	8151A	89270
LCS 180-89270/2-A	Lab Control Sample	Total/NA	Solid	8151A	89270
MB 180-89270/1-A	Method Blank	Total/NA	Solid	8151A	89270

Specialty Organics

Prep Batch: 29583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	1699	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	1699	
320-4779-3	ANINI BAY-1	Total/NA	Solid	1699	
320-4779-4	ANINI BAY-2	Total/NA	Solid	1699	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	1699	

Specialty Organics (Continued)

Prep Batch: 29583 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	1699	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	1699	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	1699	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	1699	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	1699	
LCS 320-29583/15-A	Lab Control Sample	Total/NA	Solid	1699	
LCS 320-29583/2-A	Lab Control Sample	Total/NA	Solid	1699	
MB 320-29583/1-A	Method Blank	Total/NA	Solid	1699	

Prep Batch: 29586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	HRMS-Sox	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	HRMS-Sox	
320-4779-3	ANINI BAY-1	Total/NA	Solid	HRMS-Sox	
320-4779-4	ANINI BAY-2	Total/NA	Solid	HRMS-Sox	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	HRMS-Sox	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	HRMS-Sox	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	HRMS-Sox	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	HRMS-Sox	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	HRMS-Sox	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	HRMS-Sox	
LCS 320-29586/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
MB 320-29586/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 30137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	1699	29583
320-4779-2	HANALEI BAY-2	Total/NA	Solid	1699	29583
320-4779-3	ANINI BAY-1	Total/NA	Solid	1699	29583
320-4779-4	ANINI BAY-2	Total/NA	Solid	1699	29583
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	1699	29583
LCS 320-29583/2-A	Lab Control Sample	Total/NA	Solid	1699	29583
MB 320-29583/1-A	Method Blank	Total/NA	Solid	1699	29583

Analysis Batch: 30234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	1699	29583
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	1699	29583
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	1699	29583
320-4779-9	ANINI CREEK-1	Total/NA	Solid	1699	29583
320-4779-10	ANINI CREEK-2	Total/NA	Solid	1699	29583

Analysis Batch: 30970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	1613B	29586
320-4779-2	HANALEI BAY-2	Total/NA	Solid	1613B	29586
320-4779-3	ANINI BAY-1	Total/NA	Solid	1613B	29586
320-4779-4	ANINI BAY-2	Total/NA	Solid	1613B	29586
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	1613B	29586
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	1613B	29586
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	1613B	29586

Specialty Organics (Continued)

Analysis Batch: 30970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	1613B	29586
320-4779-9	ANINI CREEK-1	Total/NA	Solid	1613B	29586
320-4779-10	ANINI CREEK-2	Total/NA	Solid	1613B	29586
LCS 320-29586/2-A	Lab Control Sample	Total/NA	Solid	1613B	29586
MB 320-29586/1-A	Method Blank	Total/NA	Solid	1613B	29586

Analysis Batch: 31328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	1699	29583
320-4779-2	HANALEI BAY-2	Total/NA	Solid	1699	29583
320-4779-3	ANINI BAY-1	Total/NA	Solid	1699	29583
320-4779-4	ANINI BAY-2	Total/NA	Solid	1699	29583
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	1699	29583
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	1699	29583
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	1699	29583
LCS 320-29583/15-A	Lab Control Sample	Total/NA	Solid	1699	29583
MB 320-29583/1-A	Method Blank	Total/NA	Solid	1699	29583

Analysis Batch: 31460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	1699	29583
320-4779-9	ANINI CREEK-1	Total/NA	Solid	1699	29583
320-4779-10	ANINI CREEK-2	Total/NA	Solid	1699	29583

Metals

Prep Batch: 29038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	7471A	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	7471A	
320-4779-3	ANINI BAY-1	Total/NA	Solid	7471A	
320-4779-4	ANINI BAY-2	Total/NA	Solid	7471A	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	7471A	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	7471A	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	7471A	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	7471A	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	7471A	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	7471A	
320-4779-10 MS	ANINI CREEK-2	Total/NA	Solid	7471A	
320-4779-10 MSD	ANINI CREEK-2	Total/NA	Solid	7471A	
LCS 320-29038/12-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 320-29038/11-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 29079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	7471A	29038
320-4779-2	HANALEI BAY-2	Total/NA	Solid	7471A	29038
320-4779-3	ANINI BAY-1	Total/NA	Solid	7471A	29038
320-4779-4	ANINI BAY-2	Total/NA	Solid	7471A	29038
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	7471A	29038

Metals (Continued)

Analysis Batch: 29079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	7471A	29038
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	7471A	29038
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	7471A	29038
320-4779-9	ANINI CREEK-1	Total/NA	Solid	7471A	29038
320-4779-10	ANINI CREEK-2	Total/NA	Solid	7471A	29038
320-4779-10 MS	ANINI CREEK-2	Total/NA	Solid	7471A	29038
320-4779-10 MSD	ANINI CREEK-2	Total/NA	Solid	7471A	29038
LCS 320-29038/12-A	Lab Control Sample	Total/NA	Solid	7471A	29038
MB 320-29038/11-A	Method Blank	Total/NA	Solid	7471A	29038

Prep Batch: 30033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	3050B	
320-4779-2	HANALEI BAY-2	Total/NA	Solid	3050B	
320-4779-3	ANINI BAY-1	Total/NA	Solid	3050B	
320-4779-4	ANINI BAY-2	Total/NA	Solid	3050B	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	3050B	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	3050B	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	3050B	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	3050B	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	3050B	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	3050B	
320-4779-10 MS	ANINI CREEK-2	Total/NA	Solid	3050B	
320-4779-10 MSD	ANINI CREEK-2	Total/NA	Solid	3050B	
LCS 320-30033/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-30033/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 30453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	6020	30033
320-4779-2	HANALEI BAY-2	Total/NA	Solid	6020	30033
320-4779-3	ANINI BAY-1	Total/NA	Solid	6020	30033
320-4779-4	ANINI BAY-2	Total/NA	Solid	6020	30033
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	6020	30033
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	6020	30033
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	6020	30033
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	6020	30033
320-4779-9	ANINI CREEK-1	Total/NA	Solid	6020	30033
320-4779-10	ANINI CREEK-2	Total/NA	Solid	6020	30033
320-4779-10 MS	ANINI CREEK-2	Total/NA	Solid	6020	30033
320-4779-10 MSD	ANINI CREEK-2	Total/NA	Solid	6020	30033
LCS 320-30033/2-A	Lab Control Sample	Total/NA	Solid	6020	30033
MB 320-30033/1-A	Method Blank	Total/NA	Solid	6020	30033

General Chemistry

Analysis Batch: 28898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-1	HANALEI BAY-1	Total/NA	Solid	D 2216	
320-4779-1 DU	HANALEI BAY-1	Total/NA	Solid	D 2216	

General Chemistry (Continued)

Analysis Batch: 28898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-4779-2	HANALEI BAY-2	Total/NA	Solid	D 2216	
320-4779-3	ANINI BAY-1	Total/NA	Solid	D 2216	
320-4779-4	ANINI BAY-2	Total/NA	Solid	D 2216	
320-4779-5	SEALODGE REEF-1	Total/NA	Solid	D 2216	
320-4779-6	SEALODGE REEF-2	Total/NA	Solid	D 2216	
320-4779-7	HANALEI RIVER-1	Total/NA	Solid	D 2216	
320-4779-8	HANALEI RIVER-2	Total/NA	Solid	D 2216	
320-4779-9	ANINI CREEK-1	Total/NA	Solid	D 2216	
320-4779-10	ANINI CREEK-2	Total/NA	Solid	D 2216	

Lab Chronicle

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI BAY-1

Lab Sample ID: 320-4779-1
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 49.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.1 g	0.5 mL	90305	11/19/13 11:32	FBB	TAL PIT
Total/NA	Prep	3550B			30.23 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.23 g	1.0 mL	200309	11/28/13 01:34	AJR	TAL PEN
Total/NA	Prep	8151A			50.1 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	8151A		20	50.1 g	10.0 mL	90440	11/20/13 17:03	JMO	TAL PIT
Total/NA	Analysis	1699		1	10.16 g	200 uL	30137	11/19/13 06:18	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.13 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.13 g	20 uL	30970	11/29/13 21:48	JRB	TAL SAC
Total/NA	Prep	1699			10.16 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.16 g	200 uL	31328	12/06/13 15:05	JRB	TAL SAC
Total/NA	Prep	7471A			0.59 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.59 g	50 mL	29079	11/04/13 13:54	CV1	TAL SAC
Total/NA	Prep	3050B			1.71 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		1	1.71 g	100 mL	30453	11/21/13 14:49	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: HANALEI BAY-2

Lab Sample ID: 320-4779-2
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 59.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.1 g	0.5 mL	90305	11/19/13 11:58	FBB	TAL PIT
Total/NA	Prep	3550B			30.05 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.05 g	1.0 mL	200309	11/28/13 02:07	AJR	TAL PEN
Total/NA	Prep	8151A			50.0 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	8151A		20	50.0 g	10.0 mL	90440	11/20/13 17:28	JMO	TAL PIT
Total/NA	Prep	1699			5.00 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	5.00 g	200 uL	30137	11/19/13 07:19	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			5.17 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	5.17 g	20 uL	30970	11/29/13 22:32	JRB	TAL SAC
Total/NA	Analysis	1699		1	5.00 g	200 uL	31328	12/06/13 15:51	JRB	TAL SAC
Total/NA	Prep	7471A			0.63 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.63 g	50 mL	29079	11/04/13 13:56	CV1	TAL SAC
Total/NA	Prep	3050B			1.70 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		1	1.70 g	100 mL	30453	11/21/13 14:53	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Lab Chronicle

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI BAY-1

Lab Sample ID: 320-4779-3
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 76.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.0 g	0.5 mL	90305	11/19/13 12:25	FBB	TAL PIT
Total/NA	Prep	3550B			30.07 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.07 g	1.0 mL	200309	11/28/13 02:40	AJR	TAL PEN
Total/NA	Analysis	8151A		20	50.0 g	10.0 mL	90440	11/20/13 17:52	JMO	TAL PIT
Total/NA	Prep	8151A			50.0 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Prep	1699			10.01 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.01 g	200 uL	30137	11/19/13 08:20	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.01 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.01 g	20 uL	30970	11/29/13 23:15	JRB	TAL SAC
Total/NA	Analysis	1699		1	10.01 g	200 uL	31328	12/06/13 16:37	JRB	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.62 g	50 mL	29079	11/04/13 13:58	CV1	TAL SAC
Total/NA	Prep	3050B			1.01 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		1	1.01 g	100 mL	30453	11/21/13 14:56	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: ANINI BAY-2

Lab Sample ID: 320-4779-4
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.0 g	0.5 mL	90305	11/19/13 12:51	FBB	TAL PIT
Total/NA	Prep	3550B			30.32 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.32 g	1.0 mL	200309	11/28/13 03:14	AJR	TAL PEN
Total/NA	Prep	8151A			50.0 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	8151A		20	50.0 g	10.0 mL	90440	11/20/13 18:16	JMO	TAL PIT
Total/NA	Analysis	1699		1	10.00 g	200 uL	30137	11/19/13 09:21	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.12 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.12 g	20 uL	30970	11/29/13 23:58	JRB	TAL SAC
Total/NA	Prep	1699			10.00 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.00 g	200 uL	31328	12/06/13 17:23	JRB	TAL SAC
Total/NA	Prep	7471A			0.61 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.61 g	50 mL	29079	11/04/13 13:59	CV1	TAL SAC
Total/NA	Prep	3050B			1.02 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	1.02 g	100 mL	30453	11/21/13 16:45	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: SEALODGE REEF-1

Lab Sample ID: 320-4779-5
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.1 g	0.5 mL	90305	11/19/13 13:18	FBB	TAL PIT
Total/NA	Prep	3550B			30.10 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.10 g	1.0 mL	200309	11/28/13 03:47	AJR	TAL PEN
Total/NA	Analysis	8151A		20	50.1 g	10.0 mL	90440	11/20/13 19:53	JMO	TAL PIT
Total/NA	Prep	8151A			50.1 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Prep	1699			10.12 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.12 g	200 uL	30137	11/19/13 10:23	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.23 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.23 g	20 uL	30970	11/30/13 00:41	JRB	TAL SAC
Total/NA	Analysis	1699		1	10.12 g	200 uL	31328	12/06/13 18:09	JRB	TAL SAC
Total/NA	Prep	7471A			0.57 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.57 g	50 mL	29079	11/04/13 14:01	CV1	TAL SAC
Total/NA	Prep	3050B			1.57 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	1.57 g	100 mL	30453	11/21/13 16:49	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: SEALODGE REEF-2

Lab Sample ID: 320-4779-6
Date Collected: 10/27/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.0 g	0.5 mL	90305	11/19/13 13:45	FBB	TAL PIT
Total/NA	Prep	3550B			30.34 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.34 g	1.0 mL	200309	11/28/13 04:20	AJR	TAL PEN
Total/NA	Analysis	8151A		20	50.0 g	10.0 mL	90440	11/20/13 20:17	JMO	TAL PIT
Total/NA	Prep	8151A			50.0 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Prep	1699			10.31 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.31 g	200 uL	30234	11/19/13 21:25	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.04 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.04 g	20 uL	30970	11/30/13 01:24	JRB	TAL SAC
Total/NA	Analysis	1699		1	10.31 g	200 uL	31328	12/06/13 18:55	JRB	TAL SAC
Total/NA	Prep	7471A			0.60 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.60 g	50 mL	29079	11/04/13 14:03	CV1	TAL SAC
Total/NA	Prep	3050B			1.99 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	1.99 g	100 mL	30453	11/21/13 16:52	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Lab Chronicle

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: HANALEI RIVER-1

Lab Sample ID: 320-4779-7
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.0 g	0.5 mL	90305	11/19/13 14:11	FBB	TAL PIT
Total/NA	Prep	3550B			30.14 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.14 g	1.0 mL	200309	11/28/13 04:53	AJR	TAL PEN
Total/NA	Prep	8151A			50.0 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	8151A		20	50.0 g	10.0 mL	90440	11/20/13 20:41	JMO	TAL PIT
Total/NA	Analysis	1699		1	10.04 g	200 uL	30234	11/19/13 22:26	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.20 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.20 g	20 uL	30970	11/30/13 02:08	JRB	TAL SAC
Total/NA	Prep	1699			10.04 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.04 g	200 uL	31328	12/06/13 19:41	JRB	TAL SAC
Total/NA	Prep	7471A			0.57 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.57 g	50 mL	29079	11/04/13 14:05	CV1	TAL SAC
Total/NA	Prep	3050B			0.96 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	0.96 g	100 mL	30453	11/21/13 17:09	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: HANALEI RIVER-2

Lab Sample ID: 320-4779-8
Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 64.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.0 g	0.5 mL	90305	11/19/13 14:38	FBB	TAL PIT
Total/NA	Prep	3550B			30.32 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.32 g	1.0 mL	200309	11/28/13 05:26	AJR	TAL PEN
Total/NA	Analysis	8151A		20	50.1 g	10.0 mL	90440	11/20/13 21:05	JMO	TAL PIT
Total/NA	Prep	8151A			50.1 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	1699		1	5.20 g	200 uL	30234	11/20/13 02:52	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			5.05 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	5.05 g	20 uL	30970	11/30/13 02:51	JRB	TAL SAC
Total/NA	Prep	1699			5.20 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	5.20 g	200 uL	31460	12/09/13 17:23	JRB	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.62 g	50 mL	29079	11/04/13 14:07	CV1	TAL SAC
Total/NA	Prep	3050B			1.05 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	1.05 g	100 mL	30453	11/21/13 17:13	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Lab Chronicle

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Client Sample ID: ANINI CREEK-1

Lab Sample ID: 320-4779-9

Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 67.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.1 g	0.5 mL	90305	11/19/13 15:04	FBB	TAL PIT
Total/NA	Prep	3550B			30.23 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.23 g	1.0 mL	200309	11/28/13 05:59	AJR	TAL PEN
Total/NA	Prep	8151A			50.1 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	8151A		20	50.1 g	10.0 mL	90440	11/20/13 21:30	JMO	TAL PIT
Total/NA	Prep	1699			10.05 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.05 g	200 uL	30234	11/20/13 05:55	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.03 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.03 g	20 uL	30970	11/30/13 03:34	JRB	TAL SAC
Total/NA	Analysis	1699		1	10.05 g	200 uL	31460	12/09/13 18:09	JRB	TAL SAC
Total/NA	Prep	7471A			0.60 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.60 g	50 mL	29079	11/04/13 14:13	CV1	TAL SAC
Total/NA	Prep	3050B			1.74 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	1.74 g	100 mL	30453	11/21/13 17:20	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Client Sample ID: ANINI CREEK-2

Lab Sample ID: 320-4779-10

Date Collected: 10/28/13 00:00
Matrix: Solid
Date Received: 10/30/13 09:20
Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	0.5 mL	89262	11/09/13 03:30	KLG	TAL PIT
Total/NA	Analysis	8270D LL		5	15.1 g	0.5 mL	90305	11/19/13 15:31	FBB	TAL PIT
Total/NA	Prep	3550B			30.11 g	1.0 mL	196871	11/04/13 07:16	RDT	TAL PEN
Total/NA	Analysis	8141A		1	30.11 g	1.0 mL	200309	11/28/13 06:32	AJR	TAL PEN
Total/NA	Analysis	8151A		20	50.1 g	10.0 mL	90440	11/20/13 21:54	JMO	TAL PIT
Total/NA	Prep	8151A			50.1 g	10.0 mL	89270	11/09/13 06:46	KLG	TAL PIT
Total/NA	Analysis	1699		1	10.12 g	200 uL	30234	11/20/13 06:56	JRB	TAL SAC
Total/NA	Prep	HRMS-Sox			10.12 g	20 uL	29586	11/11/13 13:07	NMM	TAL SAC
Total/NA	Analysis	1613B		1	10.12 g	20 uL	30970	11/30/13 04:17	JRB	TAL SAC
Total/NA	Prep	1699			10.12 g	200 uL	29583	11/11/13 13:01	NMM	TAL SAC
Total/NA	Analysis	1699		1	10.12 g	200 uL	31460	12/09/13 18:55	JRB	TAL SAC
Total/NA	Prep	7471A			0.62 g	50 mL	29038	11/04/13 10:40	CV1	TAL SAC
Total/NA	Analysis	7471A		1	0.62 g	50 mL	29079	11/04/13 14:15	CV1	TAL SAC
Total/NA	Prep	3050B			0.98 g	100 mL	30033	11/18/13 07:00	NIM	TAL SAC
Total/NA	Analysis	6020		5	0.98 g	100 mL	30453	11/21/13 17:36	AMC	TAL SAC
Total/NA	Analysis	D 2216		1			28898	11/01/13 09:42	NIM	TAL SAC

Laboratory References:

SC0046 = North Coast Laboratories LTD, 5680 West End Road, Arcata, CA 95521

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NE-OS-22-13	01-31-14
A2LA	DoD ELAP		2928-01	01-31-14
Alaska (UST)	State Program	10	UST-055	12-18-13 *
Arizona	State Program	9	AZ0708	08-11-14
Arkansas DEQ	State Program	6	88-0691	06-17-14
California	NELAP	9	1119CA	01-31-14
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-14
Guam	State Program	9	N/A	08-31-14
Hawaii	State Program	9	N/A	01-31-14
Illinois	NELAP	5	200060	03-17-14
Kansas	NELAP	7	E-10375	10-31-14
Louisiana	NELAP	6	30612	06-30-14
Michigan	State Program	5	9947	01-31-14
Nebraska	State Program	7	NE-OS-22-13	01-31-14
Nevada	State Program	9	CA44	07-31-14
New Jersey	NELAP	2	CA005	06-30-14
New York	NELAP	2	11666	04-01-14
Northern Mariana Islands	State Program	9	MP0007	02-01-14
Oregon	NELAP	10	CA200005	03-28-14
Pennsylvania	NELAP	3	68-01272	03-31-14
South Carolina	State Program	4	87014	06-30-14
Texas	NELAP	6	T104704399-08-TX	05-31-14
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-14
Utah	NELAP	8	QUAN1	01-31-14
Washington	State Program	10	C581	05-05-14
West Virginia	State Program	3	9930C	12-31-13
Wyoming	State Program	8	8TMS-Q	01-31-14

Laboratory: TestAmerica Pensacola

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-14
Arizona	State Program	9	AZ0710	01-11-14
Arkansas DEQ	State Program	6	88-0689	09-01-14
Florida	NELAP	4	E81010	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200041	10-09-13 *
Iowa	State Program	7	367	08-01-14
Kansas	NELAP	7	E-10253	10-31-14
Kentucky (UST)	State Program	4	53	06-30-14
Louisiana	NELAP	6	30976	06-30-14
Maryland	State Program	3	233	09-30-14
Massachusetts	State Program	1	M-FL094	06-30-14
Michigan	State Program	5	9912	05-04-14
New Jersey	NELAP	2	FL006	06-30-14
North Carolina DENR	State Program	4	314	12-31-13

* Expired certification is currently pending renewal and is considered valid.

Laboratory: TestAmerica Pensacola (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9810	08-31-14
Pennsylvania	NELAP	3	68-00467	01-31-14
Rhode Island	State Program	1	LAO00307	12-31-13
South Carolina	State Program	4	96026	06-30-13 *
Tennessee	State Program	4	TN02907	06-30-14
Texas	NELAP	6	T104704286-12-5	09-30-14
USDA	Federal		P330-13-00193	07-01-16
Virginia	NELAP	3	460166	06-14-14
West Virginia DEP	State Program	3	136	06-30-14

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-14
California	NELAP	9	4224CA	03-31-14
Connecticut	State Program	1	PH-0688	09-30-14
Florida	NELAP	4	E871008	06-30-14
Illinois	NELAP	5	002602	06-30-14
Kansas	NELAP	7	E-10350	01-31-14
L-A-B	DoD ELAP		L2314	07-16-16
Louisiana	NELAP	6	04041	06-30-14
New Hampshire	NELAP	1	203011	04-05-14
New Jersey	NELAP	2	PA005	06-30-14
New York	NELAP	2	11182	04-01-14
North Carolina DENR	State Program	4	434	12-31-13 *
Pennsylvania	NELAP	3	02-00416	04-30-14
South Carolina	State Program	4	89014	04-30-14
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	04-30-14
Virginia	NELAP	3	460189	09-14-14
West Virginia DEP	State Program	3	142	01-31-14
Wisconsin	State Program	5	998027800	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Method	Method Description	Protocol	Laboratory
8141A	Organophosphorous Pesticides (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PIT
8151A	Herbicides (GC)	SW846	TAL PIT
1613B	Dioxins and Furans (HRGC/HRMS)	40CFR136A	TAL SAC
1699	Pesticides, Low level (HRGC/HRMS)	EPA	TAL SAC
1699	Toxaphene, Low level (HRGC/HRMS)	EPA	TAL SAC
6020	Metals (ICP/MS)	SW846	TAL SAC
7471A	Mercury (CVAA)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC
Local Method	General Sub Contract Method	NONE	SC0046

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

ASTM = ASTM International

EPA = US Environmental Protection Agency

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0046 = North Coast Laboratories LTD, 5680 West End Road, Arcata, CA 95521

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Hanalei River Heritage Foundation
Project/Site: Hanalei Bay Sediments

TestAmerica Job ID: 320-4779-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-4779-1	HANALEI BAY-1	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-2	HANALEI BAY-2	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-3	ANINI BAY-1	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-4	ANINI BAY-2	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-5	SEALODGE REEF-1	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-6	SEALODGE REEF-2	Solid	10/27/13 00:00	10/30/13 09:20
320-4779-7	HANALEI RIVER-1	Solid	10/28/13 00:00	10/30/13 09:20
320-4779-8	HANALEI RIVER-2	Solid	10/28/13 00:00	10/30/13 09:20
320-4779-9	ANINI CREEK-1	Solid	10/28/13 00:00	10/30/13 09:20
320-4779-10	ANINI CREEK-2	Solid	10/28/13 00:00	10/30/13 09:20

NORTH COAST LABORATORIES LTD.

November 12, 2013

TestAmerica Analytical - Sacramento
880 Riverside Parkway
Sacramento, CA 95605

Attn: Weidenfeld, Robert

RE: 32004923 Hanalei Bay Sediments

Order No.: 1311016
Invoice No.: 112408
PO No.: 320-4779
ELAP No.1247-Expires July 2014

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	HANALEI BAY-1 (320-4779-1)
02A	HANALEI BAY-2 (320-4779-2)
03A	ANINI BAY-1 (320-4779-3)
04A	ANINI BAY-2 (320-4779-4)
05A	SEALODGE REEF-1 (320-4779-5)
06A	SEALODGE REEF-2 (320-4779-6)
07A	HANALEI RIVER-1 (320-4779-7)
08A	HANALEI RIVER-2 (320-4779-8)
09A	ANINI CREEK-1 (320-4779-9)
10A	ANINI CREEK-2 (320-4779-10)

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s) | QA Unit | Jesse G. Chaney, Jr. Laboratory Director

5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Printed on Recycled Paper

Date: 12-Nov-2013
WorkOrder: 1311016

ANALYTICAL REPORT

Client Sample ID: HANALEI BAY-1 (320-4779-1)
Lab ID: 1311016-01A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.10	0.049	mg/kg-dry	1.0	11/1/2013	11/07/13 18:19

Client Sample ID: HANALEI BAY-2 (320-4779-2)
Lab ID: 1311016-02A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.083	0.041	mg/kg-dry	1.0	11/1/2013	11/07/13 19:02

Client Sample ID: ANINI BAY-1 (320-4779-3)
Lab ID: 1311016-03A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.065	0.032	mg/kg-dry	1.0	11/1/2013	11/07/13 19:24

Client Sample ID: ANINI BAY-2 (320-4779-4)
Lab ID: 1311016-04A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.069	0.034	mg/kg-dry	1.0	11/1/2013	11/07/13 20:07

Client Sample ID: SEALODGE REEF-1 (320-4779-5)
Lab ID: 1311016-05A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.068	0.034	mg/kg-dry	1.0	11/1/2013	11/07/13 20:29

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 12-Nov-2013
WorkOrder: 1311016

ANALYTICAL REPORT

Client Sample ID: SEALODGE REEF-2 (320-4779-6)
Lab ID: 1311016-06A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/27/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.065	0.032	mg/kg-dry	1.0	11/1/2013	11/07/13 21:12

Client Sample ID: HANALEI RIVER-1 (320-4779-7)
Lab ID: 1311016-07A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/28/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.069	0.034	mg/kg-dry	1.0	11/1/2013	11/07/13 21:34

Client Sample ID: HANALEI RIVER-2 (320-4779-8)
Lab ID: 1311016-08A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/28/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.077	0.038	mg/kg-dry	1.0	11/1/2013	11/07/13 22:17

Client Sample ID: ANINI CREEK-1 (320-4779-9)
Lab ID: 1311016-09A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/28/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.074	0.036	mg/kg-dry	1.0	11/1/2013	11/07/13 22:39

Client Sample ID: ANINI CREEK-2 (320-4779-10)
Lab ID: 1311016-10A **Matrix:** Solid
Test Name: Glyphosate
Reference: NCL Method 072
Received: 11/1/2013
Collected 10/28/2013 0:00
Analyst: WHB

Parameter	Result	Qual	Flag	Limit	MDL	Units	DF	Extracted	Analyzed
Glyphosate	ND			0.071	0.035	mg/kg-dry	1.0	11/1/2013	11/07/13 23:01

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

North Coast Laboratories, Ltd.

Date: 11/12/2013

CLIENT: TestAmerica Analytical - Sacramento
Work Order: 1311016
Project: 32004923 Hanalei Bay Sediments

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-29798** Batch ID: **29798** Test Code: **547S** Units: **mg/kg** Analysis Date **11/7/2013 17:36:02** Prep Date: **11/1/2013**

Client ID: Run ID: **ORLC6_131107A** SeqNo: **1108237**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Glyphosate	ND	0.050									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 11/12/2013

CLIENT: TestAmerica Analytical - Sacramento
Work Order: 1311016
Project: 32004923 Hanalei Bay Sediments

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **1311016-10AMS** Batch ID: **29798** Test Code: **547S** Units: **mg/kg** Analysis Date **11/7/2013 20:51:09** Prep Date: **11/1/2013**
Client ID: **ANINI CREEK-2 (320-4779-10)** Run ID: **ORLC6_131107A** SeqNo: **1108246**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Glyphosate	0.2836	0.050	0.500	0	56.7%	39	99	0			

Sample ID: **1311016-10AMSD** Batch ID: **29798** Test Code: **547S** Units: **mg/kg** Analysis Date **11/7/2013 21:56:10** Prep Date: **11/1/2013**
Client ID: **ANINI CREEK-2 (320-4779-10)** Run ID: **ORLC6_131107A** SeqNo: **1108249**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Glyphosate	0.2987	0.050	0.500	0	59.7%	39	99	0.284	5.17%	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 11/12/2013

CLIENT: TestAmerica Analytical - Sacramento
Work Order: 1311016
Project: 32004923 Hanalei Bay Sediments

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-29798** Batch ID: **29798** Test Code: **547S** Units: **mg/kg** Analysis Date **11/7/2013 18:40:59** Prep Date: **11/1/2013**
Client ID: Run ID: **ORLC6_131107A** SeqNo: **1108240**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Glyphosate	0.3611	0.050	0.500	0	72.2%	39	99	0			

Sample ID: **LCSD-29798** Batch ID: **29798** Test Code: **547S** Units: **mg/kg** Analysis Date **11/7/2013 19:46:01** Prep Date: **11/1/2013**
Client ID: Run ID: **ORLC6_131107A** SeqNo: **1108243**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Glyphosate	0.3673	0.050	0.500	0	73.5%	39	99	0.361	1.71%	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600 Fax (916) 372-1059

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1311016

12/18/2013

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Weidenfeld, Robert	Carrier Tracking No(s):	COC No: 320-19637.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: robert.weidenfeld@testamericainc.com		Page: Page 1 of 1
Company: North Coast Laboratories LTD				Job #: 320-4779-1
Address: 5680 West End Road, ,	Due Date Requested: 11/17/2013			
City: Arcata	TAT Requested (days):			
State, Zip: CA, 95521				
Phone:	PO #: 320-4779 per Robert rsm 11/1/13			
Email:	WO #:			
Project Name: Hanalei Bay Sediments	Project #: 32004923			
Site:	SSOW#:			

Analysis Requested

SUBCONTRACT - Glyphosate

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Report to MDL
Report results corrected for % moisture

	Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - Glyphosate	Total Number of Containers	Special Instructions/Note:
	Preservation Code:									
1	HANALEI BAY-1 (320-4779-1) 50	10/27/13	Hawaiian		Solid			X	1	decant standing water
2	HANALEI BAY-2 (320-4779-2) 40	10/27/13	Hawaiian		Solid			X	1	decant standing water
3	ANINI BAY-1 (320-4779-3) 23	10/27/13	Hawaiian		Solid			X	1	decant standing water
4	ANINI BAY-2 (320-4779-4) 28	10/27/13	Hawaiian		Solid			X	1	decant standing water
5	SEALODGE REEF-1 (320-4779-5) 27	10/27/13	Hawaiian		Solid			X	1	decant standing water
6	SEALODGE REEF-2 (320-4779-6) 23	10/27/13	Hawaiian		Solid			X	1	decant standing water
7	HANALEI RIVER-1 (320-4779-7) 28	10/28/13	Hawaiian		Solid			X	1	decant standing water
8	HANALEI RIVER-2 (320-4779-8) 35	10/28/13	Hawaiian		Solid			X	1	decant standing water
9	ANINI CREEK-1 (320-4779-9) 32	10/28/13	Hawaiian		Solid			X	1	decant standing water
10	ANINI CREEK-2 (320-4779-10) 30	10/28/13	Hawaiian		Solid			X	1	decant standing water

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/31/13 1500	TAL SAC		11/1/13 1155	NCL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.4

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600 Fax (916) 372-1059

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Weidenfeld, Robert	Carrier Tracking No(s):	COC No: 320-19639.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: robert.weidenfeld@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 320-4779-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 11/22/2013			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Hanalei Bay Sediments	Project #: 32004923			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	8141A_MS/2465B (MOD) Local Method	Special Instructions/Note:
			Preservation Code:			
HANALEI BAY-1 (320-4779-1)	10/27/13	Hawaiian		Solid	X	
HANALEI BAY-2 (320-4779-2)	10/27/13	Hawaiian		Solid	X	
ANINI BAY-1 (320-4779-3)	10/27/13	Hawaiian		Solid	X	
ANINI BAY-2 (320-4779-4)	10/27/13	Hawaiian		Solid	X	
SEALODGE REEF-1 (320-4779-5)	10/27/13	Hawaiian		Solid	X	
SEALODGE REEF-2 (320-4779-6)	10/27/13	Hawaiian		Solid	X	
HANALEI RIVER-1 (320-4779-7)	10/28/13	Hawaiian		Solid	X	
HANALEI RIVER-2 (320-4779-8)	10/28/13	Hawaiian		Solid	X	
ANINI CREEK-1 (320-4779-9)	10/28/13	Hawaiian		Solid	X	
ANINI CREEK-2 (320-4779-10)	10/28/13	Hawaiian		Solid	X	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/31/13 3:00	Company TA-Sac	Received by:	Date/Time: 11-1-13 9:27	Company TA-Pen
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

TestAmeri

THE LEADER IN ENVIRONMENTA

320-4779 Chain of Custody

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

Client	Hanalei River Heritage Foundation
Address	PO Box 518
City	Hanalei
State	HI
Zip Code	96714
Project Manager	
Telephone Number (Area Code)/Fax Number	
Site Contact	
Lab Contact	
Date	
Chain of Custody Number	155578
Lab Number	
Page	of
Project Name and Location (State)	Kauai North Shore (HI)
Carrier/Waybill Number	Fed EX 804365752385
Contract/Purchase Order/Quote No.	Terry Lilley 808-212-8600

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	
Hanalei Bay - 2 Jars	10-27	10:15			X									Reference # 32004894
Hanalei Bay #2 - 2 Jars	10-27	10:15			X									"
Anini Bay - 2 Jars	10-27	11:45			X									"
Anini Bay #2 - 2 Jars	10-27	11:45			X									"
Sealodge reef - 2 Jars	10-27	12:30			X									"
Sealodge reef #2 - 2 Jars	10-27	12:30			X									"
Hanalei River - 2 Jars	10-28	10:55			X									"
Hanalei River #2 - 2 Jars	10-28	10:55			X									"
Anini Creek - 2 Jars	10-28	10:15			X									"
Anini Creek #2 - 2 Jars	10-28	10:15			X									"

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Terry Lilley	10-28-13	11:00 Am
2. Relinquished By		
3. Relinquished By		
1. Received By: [signature]	10/30/13	920
2. Received By		
3. Received By		

12.3°C 9.9°C

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600 Fax (916) 372-1059

320-4779 Chain of Custody

Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Id, Robert	Carrier Tracking No(s):	COC No: 320-19638.1
Client Contact: Shipping/Receiving	idenreld@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.			Job #: 320-4779-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 11/24/2013		
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: Hanalei Bay Sediments	Project #: 32004923		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/8151A_SP (MOD) Herbicide Method 8151A Standard LL	8270D_LL/3541_LL (MOD) TCL 4.2 Semivolatiles	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
HANALEI BAY-1 (320-4779-1)	10/27/13	Hawaiian		Solid			X	X	1	
HANALEI BAY-2 (320-4779-2)	10/27/13	Hawaiian		Solid			X	X	1	
ANINI BAY-1 (320-4779-3)	10/27/13	Hawaiian		Solid			X	X	1	
ANINI BAY-2 (320-4779-4)	10/27/13	Hawaiian		Solid			X	X	1	
SEALODGE REEF-1 (320-4779-5)	10/27/13	Hawaiian		Solid			X	X	1	
SEALODGE REEF-2 (320-4779-6)	10/27/13	Hawaiian		Solid			X	X	1	
HANALEI RIVER-1 (320-4779-7)	10/28/13	Hawaiian		Solid			X	X	1	
HANALEI RIVER-2 (320-4779-8)	10/28/13	Hawaiian		Solid			X	X	1	
ANINI CREEK-1 (320-4779-9)	10/28/13	Hawaiian		Solid			X	X	1	
ANINI CREEK-2 (320-4779-10)	10/28/13	Hawaiian		Solid			X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 10/31/13 1500	Company: TAL Sac	Received by: [signature]	Date/Time: 11-1-13 8:45	Company: TAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Login Sample Receipt Checklist

Client: Hanalei River Heritage Foundation

Job Number: 320-4779-1

Login Number: 4779

List Number: 1

Creator: Sadler, Jeremy

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hanalei River Heritage Foundation

Job Number: 320-4779-1

Login Number: 4779
List Number: 1
Creator: Crawford, Lauren E

List Source: TestAmerica Pensacola
List Creation: 11/01/13 05:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hanalei River Heritage Foundation

Job Number: 320-4779-1

Login Number: 4779
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 11/01/13 10:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	