Site Contamination Report

HYDROLOGIC ASSOCIATES U.S.A., INC.
ENVIRONMENTAL CONSULTANTS - HYDROGEOLOGIC TESTING
WELL DRILLING SERVICES - PETROLEUM CONTRACTOR

January 4, 2011

Mr. Charles Masella
Waste Cleanup Program – South District
Florida Department of Environmental Protection
P.O. Box 2549
Fort Myers, FL 33902-2549

RE: Site Assessment Report Addendum (SARA)
Conch Harbor Marina
951 Caroline St.,
Key West, Florida
Facility ID: 8735043
HAI Project Number: HA07-2291

Dear Mr. Masella,

Hydrologic Associates USA, Inc. (HAI) is in receipt of your correspondence dated October 6, 2010 regarding the above-referenced facility. The correspondence references your FDEP Interoffice Memorandum (IM) to Erin Murphy of the South District's Storage Tank Program dated September 30, 2010. The IM related to HAI's Limited Site Assessment Report (SAR) prepared for the site's April 9, 2009 Discharge (diesel fuel). The IM concluded that remedial action to properly dispose of free floating petroleum product (FFP) needed to be conducted, with additional assessment subsequent to the remedial action.

Prior to the assessment activities (i.e., re-sampling of the groundwater monitor wells), HAI personnel were dispatched to the site on December 1, 2010 to evaluate the wells for the presence of FPP. Each well was pumped and the liquid was contained in drums and inspected for FFP. However, no FFP was present in any of the groundwater monitor wells.

HAI has conducted a re-sampling event of the groundwater monitor wells that were originally sampled for the SAR (MW-3, MW-6, MW-9, MW-10, MW-13, MW-14, MW-15, and MW-17; see attached Site Plan). Samples were collected on December 2 & 3, 2010. Samples were analyzed for EPA Method 8021 VOA and 8270 PAH Parameters, and FL-PRO. During all field and sampling activities, HAI personnel observed FDEP SOP. Laboratory analysis was conducted by Florida Spectrum Environmental Services, a NELAC-certified analytical laboratory.

Results – As the attached Summary Tables and Laboratory Report show, all samples were within GCTLs for all analytical parameters save for FL-PRO at MW-10 and MW-14, which slightly exceeded the GCTL of 5 mg/l (8.21 and 7.0 mg/l, respectively). As the Site Plan shows, this contaminant plume is restricted in area to a relatively small portion of the site.

Recommendations – HAI recommends continued quarterly groundwater monitoring of the site. Additionally, HAI personnel will go to the site prior to the groundwater monitoring to remove any potential FFP. This FFP evaluation/removal will be conducted both at high and at low tide in the event that FFP (if present) is tidally influenced. Should any FFP be detected, HAI will immediately notify your office.

Additionally, HAI recommends installation of two (2) shallow groundwater monitor wells in the locations depicted on the attached Site Plan. The purpose of these new (proposed) wells will be to determine whether any FFP from the April 2009 discharge has migrated under the building. Given the logistics of the April 2009 discharge, this is a possibility that should be evaluated.

HAI trusts that this information is helpful to FDEP's purposes and satisfies the concerns raised in your October 6, 2010 correspondence and September 30, 2010 IM. Should you require any additional information or wish to discuss this matter further, please call our Miami office.

Sincerely,

James T. Miller, P.E.
Principal Engineer

11/14/11

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ATTACHMENT – 1

CORRESPONDENCE LETTER

Florida Department of
Environmental Protection
South District
P.O. Box 2549
Fort Myers, FL 33902-2549

October 6, 2010

SENT VIA ELECTRONIC MAIL

Gina Kennedy
E-mail: Gina@keyscaribbean.com
Conch Harbor Marina
951 Caroline Street
Key West, FL 33040-6636

Re: Monroe County – TK
Conch Harbor Marina
FDEP Facility ID No. 8735043
Discharge Date: April 9, 2009

Dear Ms. Kennedy:

The South District has reviewed the Limited Site Assessment Report (LSAR), dated December 28, 2009 (received July 10, 2010), prepared and submitted by Hydrologic Associates U.S.A., Inc. The document submitted is incomplete. Please respond to the comments and recommendations in the Department's September 30, 2010 memorandum (enclosed) by December 6, 2010.

Whenever possible, please submit your written response(s) electronically to Erin.Murphy@dep.state.fl.us. If there are any questions, please contact Charles Masella at (239) 332-6975, x174 or Charles.Masella@dep.state.fl.us.

Sincerely,

Erin M. Murphy
Environmental Supervisor II

EMM/KMH/rcd

Enclosure: (1) September 30, 2010 Department memo

cc: James T. Miller, P.E. – HAI (via e-mail jmiller@haimiami.com)

Interoffice Memorandum

South District

To: Erin Murphy
Storage Tank Program-South District

From: Charles Masella
Waste Cleanup Program-South District

Date: September 30, 2010

Subject: Monroe County - TK/WC
Limited Site Assessment Report (LSAR)
Conch Harbor Marina (for April 9, 2009 Discharge)
951 Caroline Street
8000 State Road 31
Key West, Florida 33040-6636
Facility ID: 8735043

The Florida Department of Environmental Protection's South District Waste Cleanup Program has reviewed the Limited Site Assessment Report (SAR) for Conch Harbor Marina. The report was generated by Hydrologic Associates U.S.A., Inc. (HAI), and received by the Department on July 14, 2009 (note: report was submitted in December 2009, but misplaced). Activities were initiated to address the petroleum impacts related to the April 9, 2009 diesel fuel discharge responded to by the Bureau of Emergency Response (BER).

Historically, the property had been a large bulk fuel storage/terminal facility from the 1930s through the early 1990s, when the storage tanks were removed, and source removal actions were undertaken. Commencing in 2005, the property was converted to the current Conch Harbor Marina. Numerous discharges (reported and unreported) appear to have impacted the soils and groundwater on the property. Documents in our Oculus database are dated from January 2003 to present. The effect of tidal influences to the water table beneath the site, appear to have the effect of mixing. However, the historical and April 2009 discharge plumes do not appear to overlap, or have mixed to a point where overlap hinders determination of groundwater quality associated to the separate and specific incidents.

HAI representatives supervised the installation of eight additional monitoring wells (MW-11 through MW-18). Groundwater samples were collected pursuant to DEP-SOP-001/01 Florida Statutes (F.S.) 2200 Guidelines on September 25, 2009. Samples were analyzed according to EPA Method 8260B for Volatile Organic Compounds (VOCs) with Methyl Tert Butyl Ether (MTBE), EPA Method 8270C for Polynuclear Aromatic Hydrocarbons (PAHs) and by Florida Residual Petroleum Organic Method (FL-PRO) for Total Recoverable Petroleum Hydrocarbons (TRPHs).

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Samples from monitoring wells MW-11 and MW-12 were not analyzed due to the presence of free phase petroleum (FPP) in the well on September 25, 2010. HAI reports that the color and viscosity of the product in both wells may indicate that the contaminant observed could be associated with earlier (past) discharges when the bulk fuel storage/terminal facility was in operation.

Analytical testing did not detect VOCs (Benzene, Toluene, Ethylbenzene, Total Xylenes, or Methyl Tert Butyl Ether in monitoring wells MW-13 through MW-18 that exceeded criteria pursuant to Florida Administrative Code (F.A.C.) Rule 62-777 Groundwater Cleanup Target Levels (GCTLs).

The PAH components Benzo(a)anthracene were detected in the samples collected from MW-14, and MW-17, with Benzo(b)fluoranthene detected in MW-14 in excess of F.A.C. Rule 62-777 GCTLs. However, in all cases, detection was less than three times above the maximum detection limit (MDL).

TRPH at 16,000.0 micrograms per liter (µg/l) was detected in the sample collected from MW-14. Again, the detection was approximately three times above the MDL of 5,000.0 µg/l allowed by F.A.C. Rule 62-777 GCTLs.

Summary:
The Waste Cleanup Program completed our technical review of the Limited Site Assessment Report (LSAR), and has determined that the assessment is incomplete. It was also noted in the report that free phase product (FPP) had been observed in the boring advanced near the April 9, 2009 discharge point. This fact indicates that product continues to exist in the soils, and has a potential to affect a larger zone of soil, and eventually impact the groundwater beyond the point of discharge. We concur with the consultant that remedial measured be instituted to collect and properly dispose of the free phase product (FPP), followed by additional groundwater monitoring. When addressed, the information should be included in an Addendum to the LSAR. At that time, a Remedial Action Plan (RAP) may be submitted to propose either a Natural Attenuation Monitoring Plan (NAMP), or further remedial actions to address the petroleum contamination as a result of the April 9, 2009 discharge of diesel fuel on the property.

It should be noted that as we might concur with the consultant that the individual plumes associated to the separate discharges on the sites appear to be distinguishable from each other, the fact remains that supposedly "past discharge" free phase product (FPP) was observed in monitoring wells MW-11 and MW-12, and "new" free phase product (FPP) was observed in April 9, 2009 soil boring, only a short distance from each other, give the reviewer pause when attempting to differentiate the separate plumes on this property.

ATTACHMENT – 2

FIGURES

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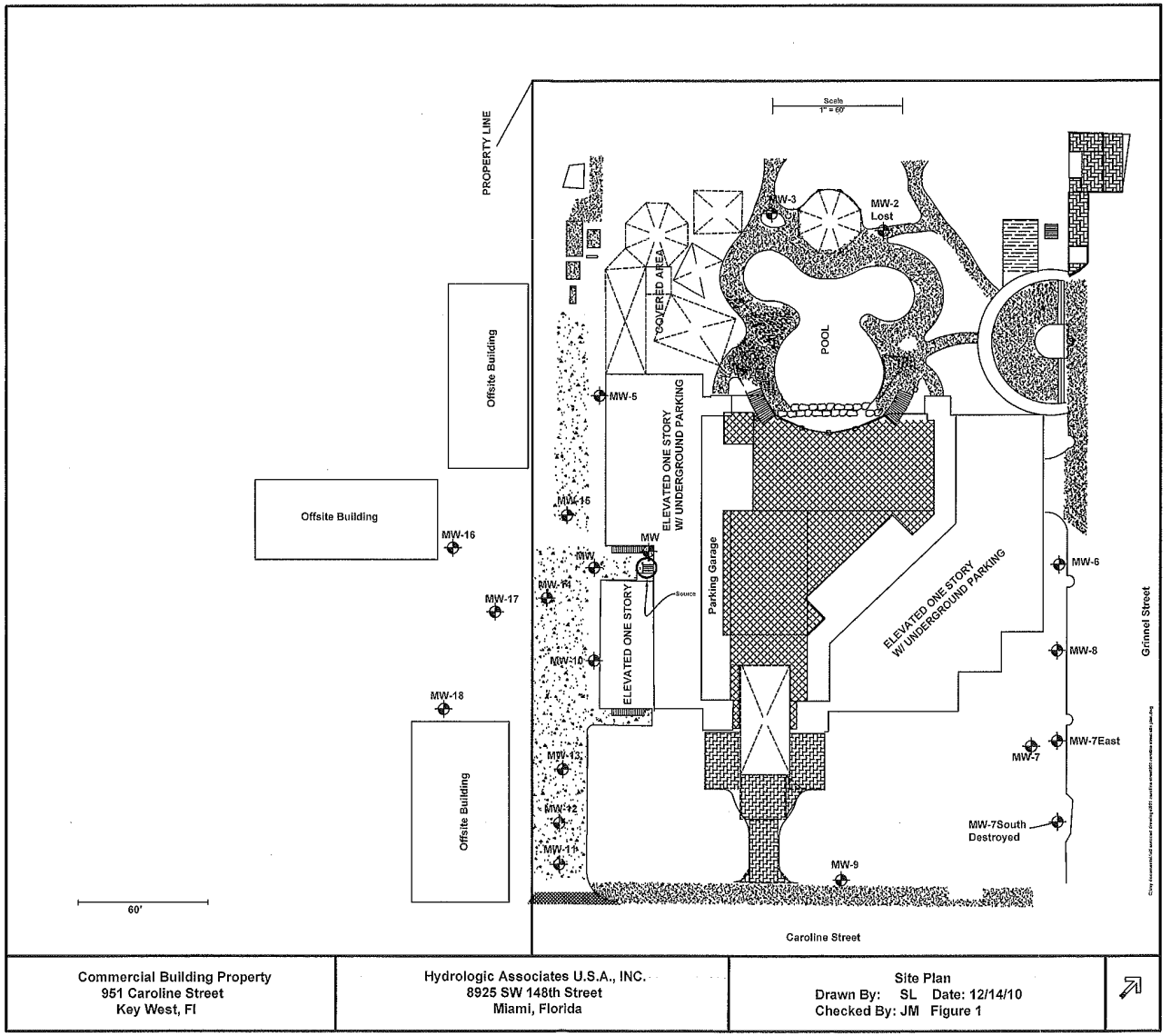
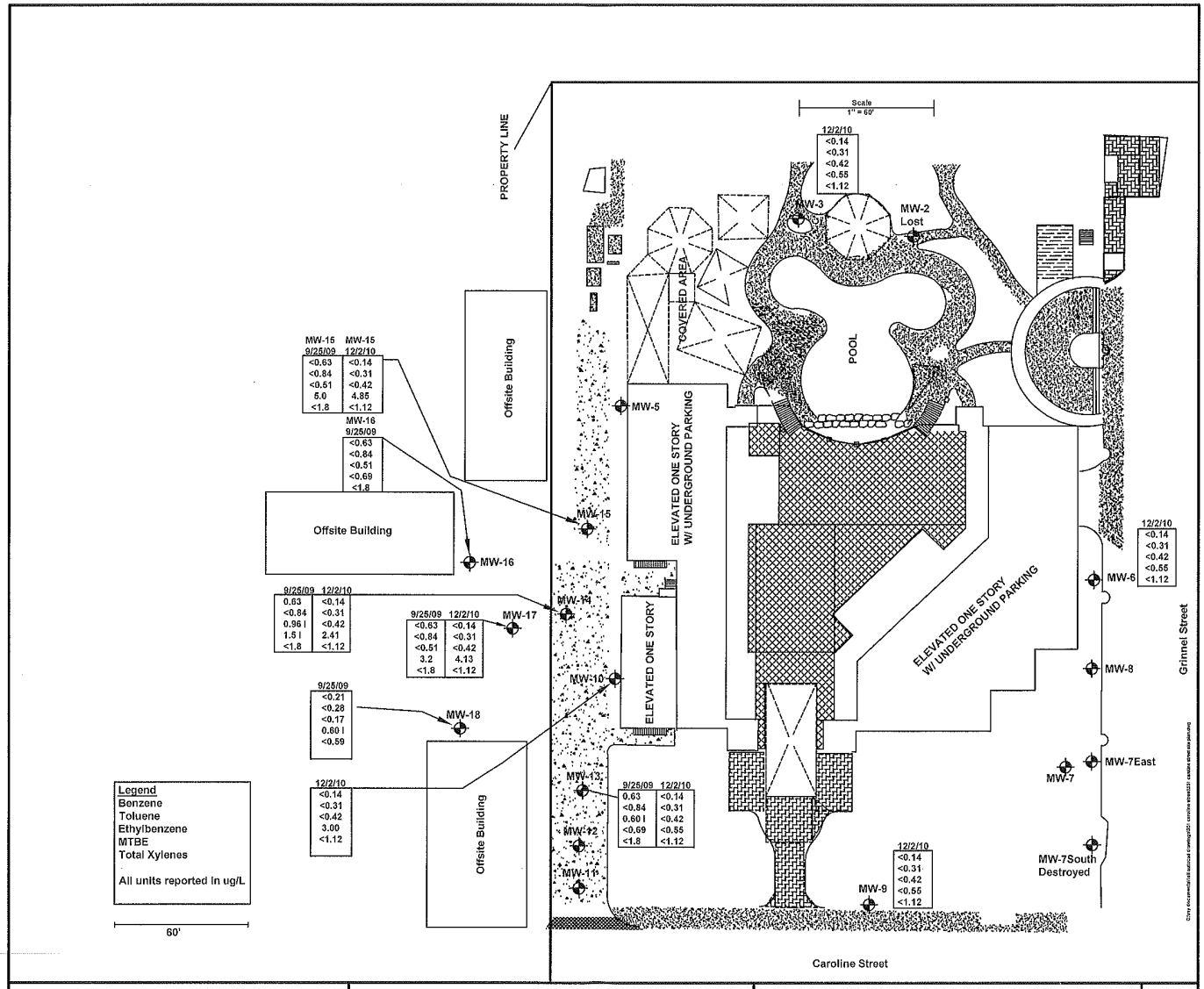
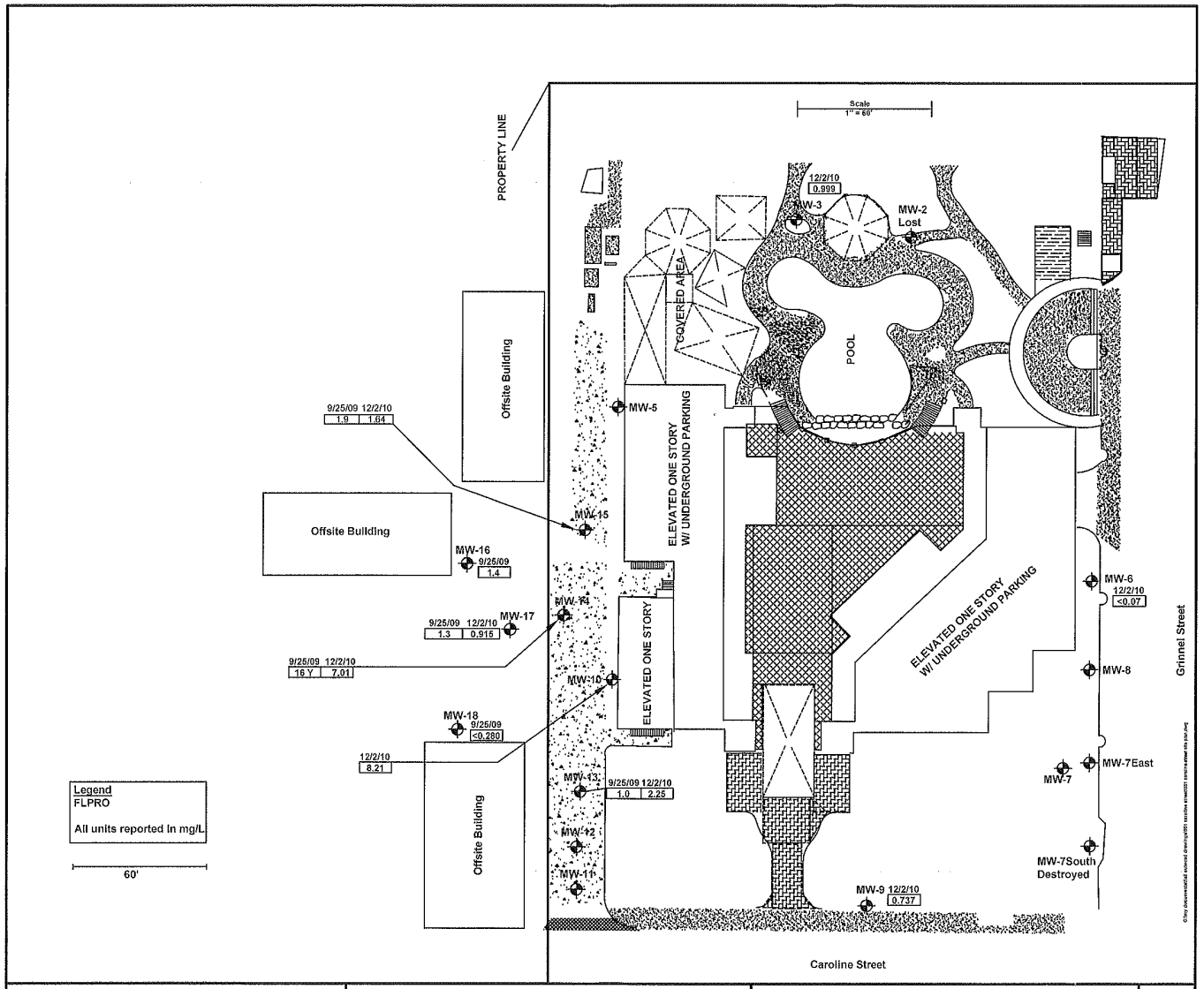
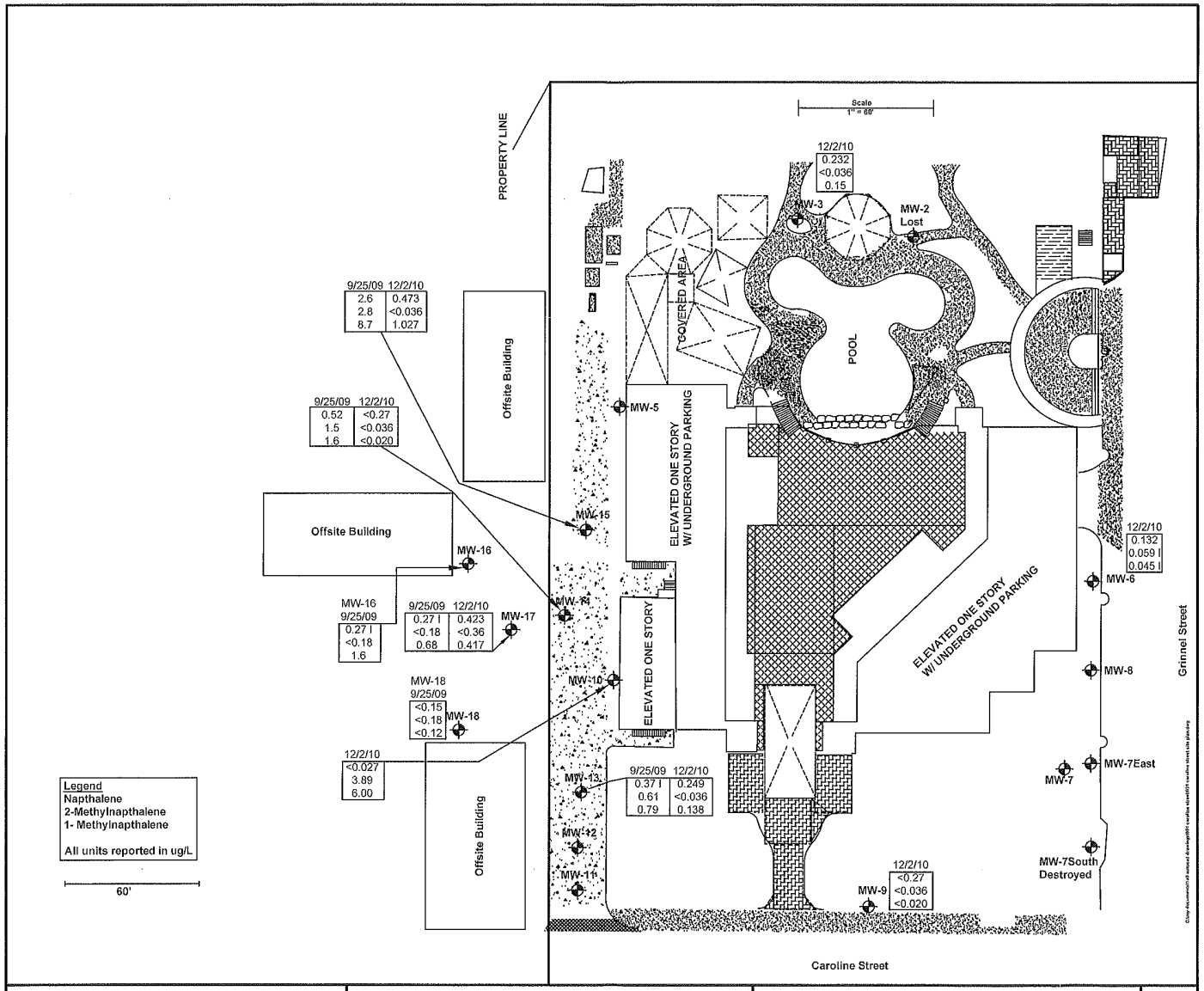




Commercial Building Property 951 Caroline Street Key West, Fl	Hydrologic Associates U.S.A., INC. 8925 SW 148th Street Miami, Florida	VOA (BTEX) Concetrations Drawn by: SL Date: 12/14/10 Checked by: JM Figure 2



Commercial Building Property 951 Caroline Street Key West, Fl	Hydrologic Associates U.S.A., INC. 8925 SW 148th Street Miami, Florida	FLPRO Concentrations Drawn By: SL Date: 12/14/10 Checked By: JM Figure 3



Commercial Building Property 951 Caroline Street Key West, Fl	Hydrologic Associates U.S.A., INC. 8925 SW 148th Street Miami, Florida	PAH Concentration Drawn By: SL Date: 12/14/10 Checked By: JM Figure 4

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ATTACHMENT – 3

SUMMARY TABLES

TABLE 2 . -- PAH GROUNDWATER ANALYTICAL RESULTS
951 CAROLINE STREET KEY WEST

Well ID	Date Sampled	Napthalene	2-Methyl-napthalene	1-Methyl-napthalene	Acenaph-thylene	Acenaph-thene	Fluorene	Phenan-threne	Anthra-cene	Fluoran-thene	Pyrene	Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(a) pyrene	Dibenz(a,h) Anthracene	Indeno(1,2,3-c,d) pyrene	Benzo(g,h,i) perylene
MW-7 EAST	4/19/2007	0.890	0.192	0.121	<0.014	<0.008	<0.004	<0.007	<0.006	<0.007	<0.010	<0.004	<0.005	<0.004	<0.004	<0.003	<0.007	<0.006	<0.007
	11/8/2007	2.38	0.747 I	3.87	<0.035	0.361 I	0.366 I	0.214 I	<0.032	<0.041	0.0540 I	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
MW-7 SOUTH	4/19/2007	<0.013	<0.009	<0.011	<0.014	<0.008	<0.004	<0.007	<0.006	<0.007	<0.010	<0.004	<0.005	<0.004	<0.004	<0.003	<0.007	<0.006	<0.007
MW-2	3/15/2007	<0.1	2.7	30.3	<0.4	<0.2	<0.2	<0.2	<0.3	<0.4	<0.4	<0.05	<0.2	<0.05	<0.5	<0.2	<0.005	<0.05	<0.3
MW-3	3/15/2007	<0.1	15.1	18.9	<0.4	<0.2	<0.2	<0.2	<0.3	<0.4	<0.4	<0.05	<0.2	<0.05	<0.5	<0.2	<0.005	<0.05	<0.3
	7/20/2007	0.419 I	1.39	4.73	<0.035	3.73	1.13	1.95	1.21	0.151 I	0.321	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	11/8/2007	0.262 I	0.342 I	1.49	<0.035	2.23	0.684 I	1.22	0.353 I	0.108 I	0.233	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	<0.36	1300	1600	<0.42	<0.42	<0.33	980	<4.0	<0.26	92	<0.75	<0.36	<0.24	<0.30	<0.51	<0.015	<0.45	<0.015
	8/14/2008	<0.069	<0.054	<0.033	<0.048	<0.061	<0.074	<0.064	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
	12/3/2010	0.232	<0.036	0.15	0.139	1.287	<0.008	<0.013	0.348	0.135	0.247	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-5	3/15/2007	<0.1	<0.3	<0.3	<0.4	<0.2	<0.2	<0.2	<0.3	<0.4	<0.4	<0.05	<0.2	<0.05	<0.5	<0.2	<0.005	<0.05	<0.3
	37/20/2007	0.188 I	0.180 I	0.352 I	<0.035	<0.030	<0.037	0.349 I	0.268 I	0.368 I	0.312	0.129	0.116	0.236	0.101	0.175	0.0626 I	0.186	0.264
	11/8/2007	0.0993 I	<0.098	0.330 I	<0.035	0.0794 I	0.0685 I	0.0521 I	<0.032	<0.041	0.0515 I	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	<0.012	<0.024	<0.013	<0.014	<0.014	<0.011	<0.018	<0.13	<0.0088	<0.011	<0.025	<0.012	<0.0080	<0.0099	<0.017	<0.0099	<0.015	<0.010
	8/14/2008	<0.069	<0.054	<0.033	<0.048	<0.061	<0.074	<0.064	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
MW-6	3/15/2007	<0.1	<0.3	<0.3	<0.4	<0.2	<0.2	<0.2	<0.3	<0.4	<0.4	<0.05	<0.2	<0.05	<0.5	<0.2	<0.005	<0.05	<0.3
	7/20/2007	1.47	2.50	10.3	0.494 I	9.13	10.7	9.36	2.89	4.75	3.43	0.697	0.483	0.386	0.224	0.326	0.0787 I	0.205	0.290
	11/8/2007	0.364 I	<0.098	0.782 I	<0.035	2.49	2.06	0.243 I	<0.196 I	0.820 I	0.616	0.0453 I	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	<0.012	<0.024	1.8	<0.014	3.1	2.5	3.3	0.64	2.3	1.7	<0.025	<0.012	<0.0080	<0.0099	<0.017	<0.0099	<0.015	<0.010
	8/14/2008	<0.069	<0.054	0.32	<0.048	<0.061	<0.074	<0.064	<0.044	0.47	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
	12/2/2010	0.132	0.059 I	0.045 I	<0.006	0.134	0.056	0.030 I	0.068	0.157	0.123	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-7	3/15/2007	35.4	70.8	64.2	<0.4	<0.2	<0.2	<0.2	<0.3	<0.4	<0.4	<0.05	<0.2	<0.05	<0.5	<0.2	<0.005	<0.05	<0.3
	7/20/2007	16.9	250.0	41.7	<0.035	0.622 I	0.792 I	0.550 I	0.0726 I	<0.041	0.0654 I	<0.029	<0.050	<0.045	<0.031	0.0327 I	0.0637 I	0.0446 I	0.0632 I
	11/8/2007	0.0712 I	<0.098	<0.032	<0.035	<0.030	<0.037	<0.033	<0.032	<0.041	<0.039	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	14	34	27	<0.014	<0.014	<0.011	<0.018	<0.13	0.16	0.17	0.19	0.40	0.32	0.36	1.3	<0.0099	<0.015	<0.010
	8/14/2008	13	29	31	<0.048	<0.061	<0.074	<0.064	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.0500	<0.056	<0.028	<0.050	<0.046
MW-8	7/20/2007	0.316 I	0.223 I	0.0483 I	<0.035	0.116 I	0.0878 I	0.109 I	0.0503 I	0.0615 I	0.115	0.0358 I	<0.050	<0.045	<0.031	<0.031	0.0343 I	0.0433 I	0.0531 I
	11/8/2007	<0.070	<0.098	0.0428 I	<0.035	0.0776 I	<0.037	<0.033	<0.032	<0.041	0.0966 I	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	<0.012	1.2	1.1	<0.014	<0.014	<0.011	<0.018	<0.13	<0.0088	<0.011	<0.40	0.54	0.53	0.55	0.55	<0.0099	<0.015	<0.010
	8/14/2008	<0.069	<0.054	<0.033	<0.048	<0.061	<0.074	<0.064	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
MW-9	7/20/2007	0.251 I	<0.098	0.252 I	<0.035	0.972 I	0.395 I	<0.033	<0.032	0.125 I	0.123	0.0294 I	<0.050	<0.045	<0.031	0.0398 I	<0.034	0.0393 I	<0.048
	11/8/207	0.104 I	<0.098	0.198 I	<0.035	0.863 I	0.268 I	0.0986 I	0.144 I	0.105 I	0.142	<0.029	<0.050	<0.045	<0.031	<0.031	<0.034	<0.039	<0.048
	4/4/2008	<0.012	<0.024	<0.013	<0.014	<0.014	<0.011	<0.018	<0.13	<0.0088	<0.011	<0.025	<0.012	<0.0088	<0.0099	<0.017	<0.0099	<0.015	<0.010
	8/14/2008	<0.069	<0.054	<0.033	<0.048	<0.061	<0.074	<0.064	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
	12/2/2010	<0.027	<0.036	<0.020	<0.006	1.533	<0.008	<0.013	<0.006	0.144	0.157	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-10	7/20/2007	1.58	12.9	25.2	<0.035	13.5	13.3	25.8	0.032	0.978 I	1.22	0.123	0.154	0.154	0.0661 I	0.144	<0.034	0.0824 I	0.104
	11/8/2007	0.303 I	1.13	2.87	<0.035	3.45	4.69	4.00	0.581 I	0.172 I	0.274	0.0350 I	<0.050	<0.045	<0.031	0.0357 I	<0.034	<0.039	<0.048
	4/4/2008	<0.012	<0.024	3.2	<0.014	5.9	6.6	2.9	<0.13	<0.0088	<0.011	<0.025	<0.012	<0.0088	<0.0099	<0.017	<0.0099	<0.015	<0.010
	8/14/2008	1.1	2.2	6.5	<0.048	<0.044	6.1	4.4	<0.044	<0.040	<0.031	<0.042	<0.052	<0.046	<0.050	<0.056	<0.028	<0.050	<0.046
	12/2/2010	<0.027	3.89	6.00	<0.006	4.41	6.152	2.44	0.758	0.158	0.259	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-13	9/25/2009	0.37 I	0.61	0.79	<0.13	0.13 I	<0.10	<0.10	<0.080	<0.084	<0.12	<0.029	<0.060	<0.025	<0.082	<0.023	<0.047	<0.039	<0.092
	12/2/2010	0.249	<0.036	0.138	<0.006	<0.008	<0.008	<0.013	<0.006	0.033	0.020 I	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-14	9/25/2009	0.52	1.5	1.6	<0.13	0.51	0.64	0.91	0.13 I	0.42 I	0.63	0.089 I	0.12 I	0.14 I	0.095 I	0.092 I	<0.047	<0.039	<0.092
	12/3/2010	<0.027	<0.036	<0.020	<0.006	0.523	<0.008	0.694	<0.006	0.511	0.6	0.092	0.12	0.26	0.09	0.123	<0.004	0.054	<0.007
MW-15	9/25/2009	2.6	2.8	8.7	0.18 I	<0.13	2.6	1.1	0.18 I	0.11 I	<0.12	<0.029	<0.060	<0.025	<0.082	<0.023	<0.047	<0.039	<0.092
	12/2/2010	0.473	<0.036	1.027	<0.006	0.974	1.096	<0.013	<0.006	<0.004	<0.011	<0.004	<0.004	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-16	9/25/2009	0.27 I	<0.18	1.6	<0.13	2.7	3.9	2.1	0.37 I	0.34 I	<0.027	<0.029	<0.060	<0.025	<0.082	<0.023	<0.047	<0.039	<0.092
MW-17	9/25/2009	0.27 I	<0.18	0.68	<0.13	1.9	2.2	2.4	0.23 I	0.31 I	0.28 I	0.054 I	<0.060	<0.025	<0.082	<0.023	<0.047	<0.039	<0.092
	12/3/2010	0.423	<0.036	0.417	0.80	2.463	2.632	0.530	0.283	0.340	0.321	0.042	0.026	<0.008	<0.003	<0.006	<0.004	<0.011	<0.007
MW-18	9/25/2009	<0.15	<0.18	<0.12	<0.13	<0.13	<0.10	<0.10	<0.080	<0.084	<0.12	<0.029	<0.060	<0.025	<0.082	<0.023	<0.047	<0.039	<0.092
Criteria		14	28	28	210	20	280	210	2100	280	210	0.05	4.8	0.05	0.5	0.2	0.005	0.05	210

Notes: Criteria - FAC 62- 777(Groundwater Criteria)
U - Below method Detectation limits
All units reported in ug/l
N/A - Not Applicable
tf/table2GW951carolinestreetkeywest
I = The reported value is between the laboratory method detection limits and the laboratory pratical quantitation limit.

TABLE 1. -- VOA AND FLPRO GROUNDWATER ANALYTICAL RESULTS
951 CAROLINE STREET KEY WEST

RECEIVED
May 13, 2011
KW Planning Dpt

Well ID	Date Sampled	Benzene	Toluene	Ethylbenzene	MTBE	Total Xylenes	FLPRO*
MW-7 EAST	4/19/2007	<0.09	<0.14	<0.13	<0.50	<0.38	<0.10
	11/8/2007	6.95	0.350 I	7.33	<0.12	1.45 I	0.799
MW-7 SOUTH	4/19/2007	<0.09	<0.14	<0.13	<0.50	<0.38	<0.10
MW-2	3/15/2007	17.8	1.9	19.9	4.3	2.1*	0.2
MW-3	3/15/2007	2.0	<0.7	<0.7	<0.5	<1.7*	0.08
	7/20/2007	<0.31	<0.28	<0.31	<0.12	<1.2	1.93
	11/8/2007	<0.31	<0.28	<0.31	<0.12	<1.2	1.36
	4/4/2008	<0.28	<0.24	<0.25	<0.20	<0.62	528
	8/14/2008	<0.28	<0.24	<0.25	<0.24	<0.62	2.29
	12/2/2010	<0.14	<0.31	<0.42	<0.55	<1.12	0.999
MW-5	3/15/2007	<0.6	<0.7	<0.7	11.5	<1.7*	<0.04
	7/20/2007	<0.31	<0.28	<0.31	7.38	<1.2	2.28
	11/8/2007	<0.31	<0.28	<0.31	6.18	<1.2	0.453 I
	4/4/2008	<0.28	<0.24	<0.25	2.3	<0.62	1.13
	8/14/2008	<0.28	<0.24	<0.25	3.8	<0.62	0.219
MW-6	3/15/2007	<0.6	<0.7	<0.7	<0.5	<1.7*	<0.04
	7/20/2007	71.3	1.47	1.92	<0.12	<1.2	4.78
	11/8/2007	37.6	0.750 I	0.610 I	<0.12	<1.2	0.526 I
	4/4/2008	36	1.1	1.5	<0.20	<0.62	9.44
	8/14/2008	1.5	<0.24	<0.25	<0.20	<0.62	0.239
	12/2/2010	<0.14	<0.31	<0.42	<0.55	<1.12	<0.07
MW-7	3/15/2007	771	59.2	162	<0.5	102.9*	0.06
	7/20/2007	424	<31	146	<12	<120	4.78
	11/8/2007	<0.31	<0.28	<0.31	<0.12	<1.2	<0.15
	4/4/2008	960	11	160	<0.20	23	2.44
	8/14/2008	62	1.5	46	<0.20	2.9	4.12
MW-8	7/20/2007	0.890	<0.28	0.330 I	<0.12	<1.2	<0.15
	11/8/2007	<0.31	<0.28	<0.31	<0.12	<1.2	0.421 I
	4/4/2008	0.56	<0.24	<0.25	<0.20	<0.62	0.774
	8/14/2008	<0.28	<0.24	<0.25	<0.20	<0.62	0.336
MW-9	7/20/2007	<0.31	<0.28	<0.31	<0.12	<1.2	0.984
	11/8/2007	<0.31	<0.28	<0.31	<0.12	<1.2	0.803
	4/4/2008	<0.28	<0.24	<0.25	<0.20	<0.62	0.818
	8/14/2008	<0.28	<0.24	<0.25	<0.20	<0.62	0.715
	12/2/2010	<0.14	<0.31	<0.42	<0.55	<1.12	0.737
MW-10	7/20/2007	<3.1	<2.8	<3.1	11.1	<12	14.1
	11/8/2007	<0.31	<0.28	<0.31	6.28	<1.2	14.3
	4/4/2008	<0.28	<0.24	<0.25	5.3	<0.62	5.88
	8/14/2008	<0.28	<0.24	<0.25	5.9	<0.62	7.99
	12/2/2010	<0.14	<0.31	<0.42	3.00	<1.12	8.21
MW-13	9/25/2009	0.63	<0.84	0.60 I	<0.69	<1.8	1.0
	12/2/2010	<0.14	<0.31	<0.42	<0.55	<1.12	2.3
MW-14	9/25/2009	0.63	<0.84	0.96 I	1.5 I	<1.8	16 Y
	12/2/2010	<0.14	<0.31	<0.42	2.41	<1.12	7.0
MW-15	9/25/2009	<0.63	<0.84	<0.51	5.0	<1.8	1.9
	12/2/2010	<0.14	<0.31	<0.42	4.85	<1.12	1.64
MW-16	9/25/2009	<0.63	<0.84	<0.51	<0.69	<1.8	1.4
MW-17	9/25/2009	<0.63	<0.84	<0.51	3.2	<1.8	1.3
	12/2/2010	<0.14	<0.31	<0.42	4.13	<1.12	0.915
MW-18	9/25/2009	<0.21	<0.28	<0.17	0.60 I	<0.59	<0.280
Criteria	**N/A**	**1.0**	**40**	**30**	**20**	**20**	**5**

Notes: Criteria - FAC 62-777 (Groundwater Criteria)
U = Below method detection limit
All units reported in ug/l
* - reported in mg/l but by method FLPRO
*- calculation conducted in house
tf/table1GW951carolinestkeywest

ATTACHMENT – 4

LABORATORY REPORT, CHAIN OF CUSTODY AND GROUNDWATER SAMPLING LOGS

Florida Spectrum
Environmental Services, Inc.

RECEIVED
May 13, 2011
KW Planning Dpt

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43806

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-15
Collected: 12/02/10 13:27
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	4.85		ug/L	0.55	1.65	5030/8260B	12/07 21:14	12/07 21:14	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 21:14	12/07 21:14	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 21:14	12/07 21:14	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 21:14	12/07 21:14	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 21:14	12/07 21:14	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 21:14	12/07 21:14	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 21:14	12/07 21:14	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 21:14	12/07 21:14	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 21:14	12/07 21:14	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 21:14	12/07 21:14	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	0.473		ug/L	0.027	0.081	8270D	12/07 16:00	12/07 19:29	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 19:29	MAZ
1-Methylnaphthalene	1.027		ug/L	0.020	0.060	8270D	12/07 16:00	12/07 19:29	MAZ
Acenaphthene	0.974		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:29	MAZ
Phenanthrene	U	U	ug/L	0.013	0.039	8270D	12/07 16:00	12/07 19:29	MAZ
Fluoranthene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:29	MAZ

Report To:
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9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43806

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-15
Collected: 12/02/10 13:27
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:29	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:29	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:29	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 19:29	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:29	MAZ
Fluorene	1.096		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:29	MAZ
Anthracene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:29	MAZ
Pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 19:29	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:29	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 19:29	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 19:29	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:29	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
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Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-15
Collected: 12/02/10 13:27
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	1.64		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 15:33	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43807

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-13
Collected: 12/02/10 14:30
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	U	U	ug/L	0.55	1.65	5030/8260B	12/07 21:43	12/07 21:43	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 21:43	12/07 21:43	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 21:43	12/07 21:43	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 21:43	12/07 21:43	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 21:43	12/07 21:43	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 21:43	12/07 21:43	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 21:43	12/07 21:43	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 21:43	12/07 21:43	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 21:43	12/07 21:43	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 21:43	12/07 21:43	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	0.249		ug/L	0.027	0.081	8270D	12/07 16:00	12/07 19:54	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 19:54	MAZ
1-Methylnaphthalene	0.138		ug/L	0.020	0.060	8270D	12/07 16:00	12/07 19:54	MAZ
Acenaphthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:54	MAZ
Phenanthrene	U	U	ug/L	0.013	0.039	8270D	12/07 16:00	12/07 19:54	MAZ
Fluoranthene	0.033		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:54	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43807

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-13
Collected: 12/02/10 14:30
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:54	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:54	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:54	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 19:54	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:54	MAZ
Fluorene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 19:54	MAZ
Anthracene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 19:54	MAZ
Pyrene	0.020	I	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 19:54	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:54	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 19:54	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 19:54	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 19:54	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
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9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43807

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-13
Collected: 12/02/10 14:30
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	2.25		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 16:06	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43808

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-9
Collected: 12/02/10 15:25
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	U	U	ug/L	0.55	1.65	5030/8260B	12/07 22:12	12/07 22:12	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 22:12	12/07 22:12	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 22:12	12/07 22:12	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 22:12	12/07 22:12	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 22:12	12/07 22:12	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 22:12	12/07 22:12	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 22:12	12/07 22:12	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 22:12	12/07 22:12	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 22:12	12/07 22:12	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 22:12	12/07 22:12	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	U	U	ug/L	0.027	0.081	8270D	12/07 16:00	12/07 20:19	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 20:19	MAZ
1-Methylnaphthalene	U	U	ug/L	0.020	0.060	8270D	12/07 16:00	12/07 20:19	MAZ
Acenaphthene	1.533		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:19	MAZ
Phenanthrene	U	U	ug/L	0.013	0.039	8270D	12/07 16:00	12/07 20:19	MAZ
Fluoranthene	0.144		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:19	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43808

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-9
Collected: 12/02/10 15:25
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:19	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:19	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:19	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 20:19	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:19	MAZ
Fluorene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:19	MAZ
Anthracene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:19	MAZ
Pyrene	0.157		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 20:19	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:19	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 20:19	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 20:19	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:19	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43808

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-9
Collected: 12/02/10 15:25
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	0.737		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 16:39	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43809

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-6
Collected: 12/02/10 16:05
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	U	U	ug/L	0.55	1.65	5030/8260B	12/07 22:42	12/07 22:42	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 22:42	12/07 22:42	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 22:42	12/07 22:42	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 22:42	12/07 22:42	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 22:42	12/07 22:42	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 22:42	12/07 22:42	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 22:42	12/07 22:42	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 22:42	12/07 22:42	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 22:42	12/07 22:42	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 22:42	12/07 22:42	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	0.132		ug/L	0.027	0.081	8270D	12/07 16:00	12/07 20:44	MAZ
2-Methylnaphthalene	0.059	I	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 20:44	MAZ
1-Methylnaphthalene	0.045	I	ug/L	0.020	0.060	8270D	12/07 16:00	12/07 20:44	MAZ
Acenaphthene	0.134		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:44	MAZ
Phenanthrene	0.030	I	ug/L	0.013	0.039	8270D	12/07 16:00	12/07 20:44	MAZ
Fluoranthene	0.157		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:44	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43809

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-6
Collected: 12/02/10 16:05
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:44	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:44	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:44	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 20:44	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:44	MAZ
Fluorene	0.056		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 20:44	MAZ
Anthracene	0.068		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 20:44	MAZ
Pyrene	0.123		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 20:44	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:44	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 20:44	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 20:44	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 20:44	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43809

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-6
Collected: 12/02/10 16:05
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	U	U	mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 17:12	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43810

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-10
Collected: 12/02/10 17:20
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	3.00		ug/L	0.55	1.65	5030/8260B	12/07 23:11	12/07 23:11	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 23:11	12/07 23:11	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 23:11	12/07 23:11	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 23:11	12/07 23:11	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 23:11	12/07 23:11	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 23:11	12/07 23:11	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 23:11	12/07 23:11	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 23:11	12/07 23:11	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 23:11	12/07 23:11	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 23:11	12/07 23:11	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	U	U	ug/L	0.027	0.081	8270D	12/07 16:00	12/07 21:09	MAZ
2-Methylnaphthalene	3.89		ug/L	0.036	0.108	8270D	12/07 16:00	12/07 21:09	MAZ
1-Methylnaphthalene	6.00		ug/L	0.020	0.060	8270D	12/07 16:00	12/07 21:09	MAZ
Acenaphthene	4.41		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:09	MAZ
Phenanthrene	2.44		ug/L	0.013	0.039	8270D	12/07 16:00	12/07 21:09	MAZ
Fluoranthene	0.158		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:09	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43810

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-10
Collected: 12/02/10 17:20
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:09	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:09	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:09	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 21:09	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:09	MAZ
Fluorene	6.152		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:09	MAZ
Anthracene	0.758		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:09	MAZ
Pyrene	0.259		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 21:09	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:09	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 21:09	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 21:09	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:09	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43810

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-10
Collected: 12/02/10 17:20
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	8.21		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 17:45	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
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Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43811

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-3
Collected: 12/03/10 09:47
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	U	U	ug/L	0.55	1.65	5030/8260B	12/07 23:40	12/07 23:40	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/07 23:40	12/07 23:40	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/07 23:40	12/07 23:40	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/07 23:40	12/07 23:40	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/07 23:40	12/07 23:40	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/07 23:40	12/07 23:40	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/07 23:40	12/07 23:40	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 23:40	12/07 23:40	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/07 23:40	12/07 23:40	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/07 23:40	12/07 23:40	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	0.232		ug/L	0.027	0.081	8270D	12/07 16:00	12/07 21:34	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 21:34	MAZ
1-Methylnaphthalene	0.15		ug/L	0.020	0.060	8270D	12/07 16:00	12/07 21:34	MAZ
Acenaphthene	1.287		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:34	MAZ
Phenanthrene	U	U	ug/L	0.013	0.039	8270D	12/07 16:00	12/07 21:34	MAZ
Fluoranthene	0.135		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:34	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43811

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-3
Collected: 12/03/10 09:47
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:34	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:34	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:34	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 21:34	MAZ
Acenaphthylene	0.139		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:34	MAZ
Fluorene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 21:34	MAZ
Anthracene	0.348		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 21:34	MAZ
Pyrene	0.247		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 21:34	MAZ
Chrysene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:34	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 21:34	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 21:34	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 21:34	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43811

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-3
Collected: 12/03/10 09:47
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	0.999		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 18:17	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43812

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-17
Collected: 12/03/10 11:10
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	4.13		ug/L	0.55	1.65	5030/8260B	12/08 00:09	12/08 00:09	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/08 00:09	12/08 00:09	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/08 00:09	12/08 00:09	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/08 00:09	12/08 00:09	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/08 00:09	12/08 00:09	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/08 00:09	12/08 00:09	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/08 00:09	12/08 00:09	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/08 00:09	12/08 00:09	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/08 00:09	12/08 00:09	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/08 00:09	12/08 00:09	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	0.423		ug/L	0.027	0.081	8270D	12/07 16:00	12/07 22:00	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 22:00	MAZ
1-Methylnaphthalene	0.417		ug/L	0.020	0.060	8270D	12/07 16:00	12/07 22:00	MAZ
Acenaphthene	2.463		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:00	MAZ
Phenanthrene	0.530		ug/L	0.013	0.039	8270D	12/07 16:00	12/07 22:00	MAZ
Fluoranthene	0.340		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:00	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43812

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-17
Collected: 12/03/10 11:10
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	0.042		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:00	MAZ
Benzo(b)fluoranthene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:00	MAZ
Benzo(a)pyrene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:00	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 22:00	MAZ
Acenaphthylene	0.80		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:00	MAZ
Fluorene	2.632		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:00	MAZ
Anthracene	0.283		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:00	MAZ
Pyrene	0.321		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 22:00	MAZ
Chrysene	0.026		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:00	MAZ
Benzo(k)fluoranthene	U	U	ug/L	0.003	0.009	8270D	12/07 16:00	12/07 22:00	MAZ
Indeno(1,2,3-cd)pyrene	U	U	ug/L	0.011	0.033	8270D	12/07 16:00	12/07 22:00	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:00	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

RECEIVED
May 13, 2011
KW Planning Dpt

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43812

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-17
Collected: 12/03/10 11:10
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY..	ANALYST
TOTAL PRO (C8-C40)	0.915		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 18:51	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43813

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-14
Collected: 12/03/10 12:40
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
8260B VOA Compounds in Water by GC/MS				**Dilution Factor =1**					
Methyl-tert-butyl-ether	2.41		ug/L	0.55	1.65	5030/8260B	12/08 00:38	12/08 00:38	AC
Benzene	U	U	ug/L	0.14	0.42	5030/8260B	12/08 00:38	12/08 00:38	AC
Toluene	U	U	ug/L	0.31	0.93	5030/8260B	12/08 00:38	12/08 00:38	AC
Chlorobenzene	U	U	ug/L	0.34	1.02	5030/8260B	12/08 00:38	12/08 00:38	AC
Ethylbenzene	U	U	ug/L	0.42	1.26	5030/8260B	12/08 00:38	12/08 00:38	AC
m & p Xylene	U	U	ug/L	0.80	2.40	5030/8260B	12/08 00:38	12/08 00:38	AC
o- Xylene	U	U	ug/L	0.32	0.96	5030/8260B	12/08 00:38	12/08 00:38	AC
1,3-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/08 00:38	12/08 00:38	AC
1,4-Dichlorobenzene	U	U	ug/L	0.39	1.17	5030/8260B	12/08 00:38	12/08 00:38	AC
1,2-Dichlorobenzene	U	U	ug/L	0.30	0.90	5030/8260B	12/08 00:38	12/08 00:38	AC
8270D PAHs in WATER by GC/MS				**Dilution Factor =1**					
Naphthalene	U	U	ug/L	0.027	0.081	8270D	12/07 16:00	12/07 22:25	MAZ
2-Methylnaphthalene	U	U	ug/L	0.036	0.108	8270D	12/07 16:00	12/07 22:25	MAZ
1-Methylnaphthalene	U	U	ug/L	0.020	0.060	8270D	12/07 16:00	12/07 22:25	MAZ
Acenaphthene	0.523		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:25	MAZ
Phenanthrene	0.694		ug/L	0.013	0.039	8270D	12/07 16:00	12/07 22:25	MAZ
Fluoranthene	0.511		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:25	MAZ

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43813

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-14
Collected: 12/03/10 12:40
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
Benzo(a)anthracene	0.092		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:25	MAZ
Benzo(b)fluoranthene	0.26		ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:25	MAZ
Benzo(a)pyrene	0.128		ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:25	MAZ
Benzo(ghi)perylene	U	U	ug/L	0.007	0.021	8270D	12/07 16:00	12/07 22:25	MAZ
Acenaphthylene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:25	MAZ
Fluorene	U	U	ug/L	0.008	0.024	8270D	12/07 16:00	12/07 22:25	MAZ
Anthracene	U	U	ug/L	0.006	0.018	8270D	12/07 16:00	12/07 22:25	MAZ
Pyrene	0.6		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 22:25	MAZ
Chrysene	0.12		ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:25	MAZ
Benzo(k)fluoranthene	0.09		ug/L	0.003	0.009	8270D	12/07 16:00	12/07 22:25	MAZ
Indeno(1,2,3-cd)pyrene	0.054		ug/L	0.011	0.033	8270D	12/07 16:00	12/07 22:25	MAZ
Dibenzo(a,h)anthracene	U	U	ug/L	0.004	0.012	8270D	12/07 16:00	12/07 22:25	MAZ
FL-PRO (Petroleum Residual Organic Totals)-WATER					**Dilution Factor =1**				

Report To:
James T. Miller, P.E.
Hydrologic Associates USA Inc.
9730 E. Hibiscus Street Unit C
Miami, FL 33157

Report Printed: 12/10/10
Submission # 1012000105
Order # 43813

Project: 951 Caroline St.
Site Location: Key West, FL
Matrix: Water

Sample I.D.: MW-14
Collected: 12/03/10 12:40
Received: 12/04/10 11:10
Collected by: Scott Liddell

LABORATORY ANALYSIS REPORT

PARAMETER	RESULT	QC	UNITS	MDL	PQL	METHOD	DATE EXT.	DATE ANALY.	ANALYST
TOTAL PRO (C8-C40)	7.01		mg/L	0.07	0.21	FL-PRO	12/07 10:00	12/08 19:24	MD

Unless indicated, soil results are reported based on actual (wet) weight basis.

Analytes not currently NELAC certified denoted by ~.
Work performed by outside (subcontract) labs denoted by Cert.ID in Analyst Field.
Results relate only to this sample.
QC=Qualifier Codes as defined by DEP 62-160
U=Analyzed for but not detected.
Q=Sample held beyond accepted holding time.
I=Value is between MDL and PQL.
J=Estimated value.

Authorized CSM Signature (954) 978-6400
Florida-Spectrum Environmental Services,Inc.
Certification # E86006

CHAIN OF CUSTODY RECORD

SUBMISSION # 1012-105

Logged in LIMS by _____
CSM assigned _____

Florida Spectrum Environmental Services, Inc.

☐ 1460 W. McNab Road Ft Laud. FL 33309 Tel: (954) 978-6400 Fax: (954) 978-2233
☐ 630 Indian Street Savannah, GA 31401 Tel: (912) 238-5050 Fax: (912) 234-4815
☐ 528 Gooch Road Fort Meade, FL 33841 Tel: (863) 285-8145 Fax: (863) 285-7030
☐ 1112 NW Park St., Okeechobee, FL 34972 Tel: (863) 763-3336 Fax: (863) 763-1544

DUE DATE Requested

RUSH RESERVATION #

Rush Surcharges apply

Original-Return w/report | Yellow- Lab File Copy | Pink- Sampler Copy

Report to: (company name)	Hydrologic Associates	Report to Address:	9730 E hibiscus St miami, fl 33157
Invoice to: (company name)	same	Purchase Order #	
Invoice to Address:	same		
Project Name and/or Number	951 caroline St	Site Location:	Key West, Fl
Project Contact:	Jim Miller	Phone: 305-2527118	Fax: 305-2540874 Email: on file
Sampler Name: (printed)	Scott Liddell	Affiliation: HAI	Sampler Signature: Scott Liddell

	ORDER # Lab Control Number / Shaded Areas For Laboratory Use Only	Sample ID	Date Sampled	Time Sampled	Matrix (DW SW GW WW S SED HW BIO SEA OIL X AIR)	Bottle & Pres. Combo Codes	Number of Containers Received & NELAC Letter Suffixes # A-?	Analysis Required: VOA	PAH	FLPRO	Field Tests: TEMP °C	PH	COND	CHLOR
1	43806	MW-15	12/2/10	13:27	GW	3 VOA HCl	5	✓	✓	✓				
2	43807	MW-13		14:30	GW			✓	✓	✓				
3	43808	MW-9		15:25				✓	✓	✓				
4	43809	MW-6		16:05				✓	✓	✓				
5	43810	MW-10		17:20				✓	✓	✓				
6	43811	MW-3	12/3/10	9:47				✓	✓	✓				
7	43812	MW-17		11:10				✓	✓	✓				
8	43813	MW-14		12:40				✓	✓	✓				
9														
10														

Total

Special Comments:

"I waive NELAC protocol" (sign here) >

Deliverables: QA/QC Report Needed? Yes No (additional charge)

	Signature	Affiliation	Date/Time
1	Relinquished by: Scott Liddell	HAI	12/3/10 16:48
1	Received by: Deanna Ramos	FSES	12/3 16:48
2	Relinquished by: Deanna Ramos	FSES	12/4 10:15
2	Received by: Arcelio Perrer		12-4-10 10:15
3	Relinquished by: Arcelio Perrer		12-4-10 11:10
3	Received by: Daniel St. Kmoff		12/4/10 1110

www.flenviro.com COC Page _____ of _____

Sample Custody & Field Comments

Temp as received 4 C
Custody Seals? Y / N
FIELD TIME:
Sampling _____ hrs
Pick-Up _____ hrs
Misc. Charges _____

Bottle Type

A-liter amber
B-Bacteria bag/bottle
F-500 ml O-125 ml
L-liter bottle
S4- 4 oz soil jar / S8- 8 oz soil jar
T-250 ml
V-40 ml vial
W-wide mouth
X-other TED=Tedlar Air Bag

Preservatives

A-ascorbic acid P-H3PO4
C-HCL S-H2SO4
Cu-CuSO4 T-Na2S2O3-H2O
H-HNO3 U-Unpreserved
M-MCAB N-NaOH
Z-zinc acetate NH4-NH4CL

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-3	SAMPLE ID: MW-3	DATE: 12/3/10	

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 4.13	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 4.13 feet) X 0.04 gallons/foot = 0.27 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) N/A = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 9:34	PURGING ENDED AT: 9:44	TOTAL VOLUME PURGED (gallons): 2.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9:36	0.5	0.5	0.25	—	6.84	26.0	6.68mS	1.38	34.9	clr w/ organics	Petroleum
9:38	0.5	1.0	0.25	—	6.94	26.2	7.03mS	0.79	12.1	clr	Petroleum
9:40	0.5	1.5	0.25	—	6.97	26.3	7.15mS	0.62	6.79	clr	Petroleum
9:42	0.5	2.0	0.25	—	6.98	26.3	7.30mS	0.55	3.81	clr	Petroleum
9:44	0.5	2.5	0.25	—	6.99	26.3	7.37mS	0.53	2.93	clr	Petroleum

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/HMI	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 9:45	SAMPLING ENDED AT: 9:47
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-3	3	CG	40ml	HCl			VOA	SM	
MW-3	1	AG	1L	Unpr		7	PAH	APP	0.09
MW-3	1	AG	1L	H2SO4		<2	TPH	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.
Sheen noticed in flow cell

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-6	SAMPLE ID: MW-6	DATE: 12/2/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 2.64	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 2.64 feet) X 0.04 gallons/foot = 0.33 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 15:49	PURGING ENDED AT: 15:57	TOTAL VOLUME PURGED (gallons): 2.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
15:51	0.5	0.5	0.25	—	7.04	24.6	1117	1.81	5.90	clr	none
15:53	0.5	1.0	0.25	—	7.00	24.8	1091	0.87	2.47	clr	none
15:55	0.5	1.5	0.25	—	7.00	25.0	1087	0.83	1.49	clr	none
15:57	0.5	2.0	0.25	—	7.01	25.0	1085	0.81	2.04	clr	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/HMT	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 15:58	SAMPLING ENDED AT: 16:05
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-6	3	CG	40ml	HCl			VOA	SM	
MW-6	1	AG	1L	HNO3			8270	APP	0.20
MW-6	1	AG	1L	H2SO4		<2	8260	APP	0.20

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-9	SAMPLE ID: MW-9	DATE: 12/2/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 2.53	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet – 2.53 feet) X 0.16 gallons/foot = 1.52 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 14:54	PURGING ENDED AT: 15:18	TOTAL VOLUME PURGED (gallons): 6.08

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
15:00	1.52	1.52	0.25	3.19	7.13	26.6	2305	0.90	25.6	none	light
15:06	1.52	3.04	0.25	3.16	7.12	26.7	2421	0.44	15.3	CLR	slight
15:12	1.52	4.56	0.25	3.17	7.10	26.6	2428	0.35	7.13	CLR	slight
15:18	1.52	6.08	0.25	3.13	7.10	26.6	2427	0.34	6.27	CLR	slight
		7.60									

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: SCOTT Liddell/HAI	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 15:19	SAMPLING ENDED AT: 15:25
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-9	3	CG	40ml	HCl			VOA	SM	
MW-9	1	AG	1L	UNP		7	PAH	APP	0.09
MW-9	1	AG	1L	H2SO4		<2	CLPRO	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-10	SAMPLE ID: MW-10	DATE: 12/2/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: feet to 11 feet	STATIC DEPTH TO WATER (feet): 2.40	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 2.40 feet) X 0.16 gallons/foot = 1.38 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 16:42	PURGING ENDED AT: 17:12	TOTAL VOLUME PURGED (gallons): 6.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
16:48	1.38	1.38	0.23	3.77	6.64	26.9	1017	0.62	15.3	clr	Petroleum
16:54	1.38	2.72	0.23	3.96	6.68	27.1	1143	0.52	21.9	clr with slight organics	Petroleum
17:00	1.38	4.14	0.23	4.07	6.78	27.1	1354	0.48	35.9	clr with organics	Petroleum
17:06	1.38	5.52	0.23	4.22	6.83	27.1	1476	0.53	43.3	clear with organics	Petroleum
17:12	1.38	6.90	0.23	4.27	6.85	27.1	1501	0.55	62.7	slight white	Petroleum

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell / HMI	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 17:13	SAMPLING ENDED AT: 17:20
PUMP OR TUBING DEPTH IN WELL (feet): 4	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-10	3	CG	40ml	HCl			VOA	SM	
MW-10	1	AG	1L	UNP		7	PAH	APP	0.09
MW-10	1	AG	1L	H2SO4		<2	EXTRO	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.
Sheen noticed in flow cell

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

RECEIVED
May 13, 2011
KW Planning Dpt

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-13	SAMPLE ID: MW-13	DATE: 12/2/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 1.58	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 1.58 feet) X 0.16 gallons/foot = 1.51 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3	PURGING INITIATED AT: 13:52	PURGING ENDED AT: 14:20	TOTAL VOLUME PURGED (gallons): 7.55

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
13:58	1.51	1.51	0.25	1.75	7.25	26.7	1028	0.74	245	Grey	Salt Water
14:04	1.51	3.02	0.25	1.75	7.23	26.8	1001	0.50	63.5	Slight Grey	Salt water
14:10	1.51	4.53	0.25	1.75	7.23	26.8	984	0.41	26.6	none	Salt water
14:16	1.51	6.04	0.25	1.75	7.24	26.8	979	0.39	13.0	clr	Salt water
14:20	1.51	7.55	0.25	1.75	7.24	26.8	974	0.37	6.66	clr	Salt water

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/MMI	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 14:21	SAMPLING ENDED AT: 14:30
PUMP OR TUBING DEPTH IN WELL (feet): 3	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-13	3	CG	40 mL	HCl			VOA	SM	
MW-13	1	HG	1 L	HNO3		7	CMH	APP	0.09
MW-13	1	PG	1 L	H2SO4		<2	GLPRO	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 6000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-14	SAMPLE ID: MW-14	DATE: 12/3/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 2.28	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 2.28 feet) X 0.16 gallons/foot = 1.40 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 12:02	PURGING ENDED AT: 12:32	TOTAL VOLUME PURGED (gallons): 7.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:08	1.40	1.40	0.23	3.94	6.93	29.5	1874	0.50	74	Slight White	Slight Petroleum
12:14	1.40	2.80	0.23	3.94	6.93	29.6	1827	0.32	123	Grey	Slight Petroleum
12:20	1.40	4.20	0.23	3.94	6.95	29.8	1791	0.26	>1000	Grey	Slight Petroleum
12:26	1.40	5.60	0.23	3.94	6.95	29.8	1801	0.25	>1000	Grey	Slight Petroleum
12:32	1.40	7.00	0.23	3.94	6.95	29.8	1811	0.24	>1000	Grey	Slight Petroleum

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/AMEC	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 12:33	SAMPLING ENDED AT: 12:40
PUMP OR TUBING DEPTH IN WELL (feet): 4	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-14	3	CG	40ml	HCl			VOA	APP	
MW-14	1	AG	1L	unp		7	PAH	APP	0.09
MW-14	1	AG	1L	H2SO4		<2	E-DRO	APP	0.09

REMARKS: pH values obtained by pouring sample over PHydrion Dip Stick.
sheen noticed in flow cell

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 Caroline St	SITE LOCATION: 951 Caroline St		
WELL NO: MW-15	SAMPLE ID: MW-15	DATE: 12/2/10	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 2.53	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 2.53 feet) X 0.16 gallons/foot = 1.36 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4	PURGING INITIATED AT: 12:48	PURGING ENDED AT: 13:18	TOTAL VOLUME PURGED (gallons): 6.80

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:54	1.36	1.36	0.23	3.96	7.10	30.7	2390	0.91	40.2	Clear with organic S	none
13:00	1.36	2.72	0.23	3.91	7.16	30.6	2696	0.50	>1000	Grey	none
13:06	1.36	4.08	0.23	3.82	7.18	30.5	3127	0.34	>1000	Grey	none
13:12	1.36	5.44	0.23	3.68	7.20	30.5	3302	0.32	748	Grey	none
13:18	1.36	6.80	0.23	3.53	7.19	30.4	3415	0.28	399	Grey	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/HAI	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 13:19	SAMPLING ENDED AT: 13:27
PUMP OR TUBING DEPTH IN WELL (feet): 4	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-15	3	CG	40ml	HCl			VOA	SM	
MW-15	1	AG	1L	none		7	PAH	APP	0.09
MW-15	1	AG	1L	H2SO4		<2	CLPRO	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: 951 caroline St		SITE LOCATION: 951 caroline St	
WELL NO: MW-17	SAMPLE ID: MW-17		DATE: 12/3/10

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 1 feet to 11 feet	STATIC DEPTH TO WATER (feet): 2.13	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (11 feet – 2.13 feet) X 0.16 gallons/foot = 1.42 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) NA = 0.25 gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5	PURGING INITIATED AT: 10:35	PURGING ENDED AT: 11:05	TOTAL VOLUME PURGED (gallons): 7.10

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:41	1.42	1.42	0.24	2.53	6.73	30.2	3533	0.53	147	white	Slight Petroleum
10:47	1.42	2.84	0.24	3.21	6.73	30.3	3525	0.50	118	white	Slight Petroleum
10:53	1.42	4.26	0.24	4.10	6.75	30.2	3499	0.45	80	white	Slight Petroleum
10:59	1.42	5.68	0.24	4.03	6.76	30.3	3484	0.43	32	Slight White	Slight Petroleum
11:05	1.42	7.10	0.24	4.03	6.74	30.3	3453	0.40	19	Clr	Slight Petroleum

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Liddell/HMI	SAMPLER(S) SIGNATURE(S): Scott Liddell	SAMPLING INITIATED AT: 11:06	SAMPLING ENDED AT: 11:10
PUMP OR TUBING DEPTH IN WELL (feet): 5	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-17	3	CG	40ml	HCl			VOA	SM	
MW-17	1	AG	1L	unp		7	PAH	RFPP	0.09
MW-17	1	AG	1L	H2SO4		<2	TPHD	APP	0.09

REMARKS: PH values obtained by pouring sample over PHydrion Dip Stick.
Sheen noticed in flow cell

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009