

**KEY WEST HARBOR DREDGING
Operational Control Turbidity Monitoring
Weekly Report for Week Ending 25 March 2004**

**This information is provided in partial fulfillment of the
monitoring requirements in:**

**Permit No. 0207625-001-E1,
Key West Maintenance Dredging Project.**

Sampling and Analysis: 3/19/2004-3/25/2004

Prepared by:

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The collection of the turbidity data reported herein used a weighted hydrodynamic tow-fish with a mounted 4-beam turbidity sensor. The sensor is an infrared optical measuring unit that determines the turbidity level in a given water sample reported as NTU's. The turbidity sensor utilizes the GLI Method 2 for the measurement of turbidity. GLI Method 2 joins EPA Method 180.1 and Standard Methods for the examination of water and waste water Method 2130B as EPA-approved for measuring turbidity.

Accuracy and precision statistics for turbidity are gathered from comparative measurements made using second source calibration verification standards and measurements of field check samples. A Hach model 2100P turbidimeter with independent calibration standards is also used to evaluate precision and accuracy.

Dredging commenced on 3/19/04 with turbidity monitoring taking place each dredging cycle. There were a number of turbidity readings out of compliance at both the resource and edge of mixing zone sites. Construction activities ceased as the dredge had already left for the disposal site. Upon the dredge's return approximately two to three hours later, the turbidity had returned to acceptable levels.

KWHD OCTM Data Reporting Form																								
Date	Back Ground Station Time	Dredge Cycle #	Back Ground (NTU)	Resource Compliance (NTU)	Resource Time	Resource Compliance Wing RT (NTU)	Resource Compliance Wing LT (NTU)	Background Resource delta (NTU)	Edge Compliance (NTU)	Edge Time	Edge Compliance Wing RT (NTU)	Edge Compliance Wing LT (NTU)	Background Edge delta (NTU)	Location	Depth of Water Body (ft)	Depth of Sample (ft)	Current Direction (deg)	Wind (deg/kts)	Weather Conditions	Tidal Stage MLLW (ft)	Dredge Cycle Start Time	Dredge Cycle Stop Time	Dredge Stopped Y/N	Comments
03/19/04	03:05	49	7.2	8.8	03:50	3.9	27.8	-8.4	3.5	03:58	3.2	4.8	-3.7	SEC2	30.1	15.8	57	040/17.1	Fair	0.10	03:10	03:35	Y	
03/19/04	06:09	50	2.8	2.7	07:28	3.9	2.0	0.1	3.0	07:36	3.4	1.5	0.4	SEC2	38.3	14.7	290	050/20.0	Fair	1.11	06:42	07:15	Y	
03/19/04	09:35	51	1.4	2.1	10:37	1.4	4.2	0.7	11.8	10:43	1.8	10.2	10.4	SEC2	31.9	14.6	263	041/15.9	Few Clouds	1.21	09:45	10:27	Y	Dredging stopped for navy vessel 10:04
03/19/04	12:57	52	2.5	5.5	13:46	2.2	2.6	3.0	3.2	13:54	2.8	8.0	0.7	SEC2	34.9	14.7	215	053/15.9	Mostly Cloudy	0.23	13:09	13:35	Y	Navy vessel in channel 12:25, 13:58 & 14:20
03/19/04	16:15	53	0.0	1.9	16:59	13.6	7.6	1.9	8.1	17:06	12.3	0.0	5.1	SEC2	36.2	18.8	287	028/14.0	Overcast	0.80	16:21	16:54	Y	
03/19/04	19:45	54	3.2	4.1	20:07	17.4	3.8	0.9	28.8	20:15	19.7	4.0	23.4	SEC2	31.0	15.6	287	080/21.0	Fair	1.68	19:20	19:59	Y	
03/19/04	22:10	55	3.3	31.8	23:18	42.8	7.0	28.3	29.0	23:26	39.4	45.8	25.7	SEC2	32.4	13.6	259	060/22.0	Few Clouds	1.98	22:31	23:12	Y	
03/20/04	01:33	56	1.4	1.0	02:18	1.5	1.2	-0.4	0.4	02:28	0.8	1.0	-1.0	SEC1	33.5	14.9	210	050/15.9	Fair	0.59	01:49	02:11	Y	
03/20/04	04:44	57	0.0	0.0	05:09	0.0	0.0	0.0	0.0	05:15	0.0	0.0	0.0	SEC2	32.8	14.2	270	058/20.0	Overcast	0.82	04:39	05:02	Y	
03/20/04	07:26	58	2.2	10.3	08:01	3.4	2.3	8.1	35.0	08:08	16.7	2.8	32.8	SEC2	32.0	14.7	290	060/19.0	Fair	1.39	07:23	07:57	Y	
03/20/04	10:29	59	2.0	5.4	11:09	20.8	2.8	3.4	14.1	11:16	22.8	3.0	12.1	SEC2	31.9	16.5	259	070/22.0	Fair	1.37	10:40	11:13	Y	
03/20/04	14:12	60	0.0	0.1	14:30	0.0	0.0	0.1	0.3	14:38	0.0	0.0	0.3	SEC2	32.0	15.0	219	073/22.0	Fair	0.21	14:07	14:29	Y	
03/20/04		61						0.0					0.0					072/22.0	Fair	0.15	14:07	14:29	Y	No Cycle/Weather
03/20/04		62						0.0					0.0					070/24.1	Fair	0.82	20:08	20:47	Y	No Cycle/Weather
03/20/04	23:12	63	5.1	17.6	00:05	8.8	13.0	12.5	32.0	00:30	19.3	12.3	20.9	SEC2	31.2	15.8	253	078/19.0	Mostly Cloudy	1.87	23:38	00:02	Y	
03/21/04	02:23	64	1.8	31.1	02:46	1.4	1.7	29.3	0.0	03:07	2.2	0.0	-1.8	SEC1	35.2	18.8	185	089/17.1	Mostly Cloudy	0.45	02:21	02:49	Y	
03/21/04	04:57	65	0.0	8.8	05:29	1.3	0.0	8.8	0.9	05:44	0.1	0.0	0.8	SEC2	31.2	14.3	231	052/14.0	Fair	0.39	05:01	05:35	Y	
03/21/04	07:52	66	3.5	3.9	08:15	3.6	8.9	0.4	7.2	08:22	42.2	3.8	3.7	SEC2	31.3	14.3	298	048/15.9	Fair	1.31	07:48	08:37	Y	
03/21/04	11:19	67	1.4	26.9	11:58	34.6	31.9	25.5	21.6	12:02	38.6	12.9	20.2	SEC2	31.5	14.9	253	044/15.9	Fair	1.61	11:20	12:00	Y	Cruise ship in channel at 10:10
03/21/04	14:24	68	0.0	0.0	15:19	0.0	0.6	0.0	1.7	15:07	0.0	0.0	1.7	SEC2	32.0	15.2	201	070/11.1	Fair	0.41	14:39	15:11	Y	
03/21/04	17:33	69	1.8	7.2	18:25	11.5	3.8	5.8	10.6	18:44	61.8	2.8	9.0	SEC2	30.0	15.0	305	017/12.0	Fair	0.35	18:00	18:42	Y	Cruise ship 1724 (log)
03/21/04	20:37	70	2.6	4.9	21:41	12.5	2.8	2.3	3.8	21:49	23.8	3.5	1.2	SEC2	31.1	13.0	311	015/13.0	Fair	1.37	21:12	21:52	Y	
03/21/04	00:02	71	0.0	1.6	00:41	0.0	0.0	1.6	0.0	00:52	0.0	5.3	0.0	SEC1	34.8	13.9	212	000/12.0	Fair	1.85	00:11	00:45	Y	
03/22/04	02:27	72	0.0	4.7	03:31	0.2	0.0	4.7	0.0	03:59	0.0	1.3	0.0	SEC1	34.1	14.2	160	351/6.9	Few Clouds	0.45	03:06	03:35	Y	
03/22/04	07:04	73	2.4	88.7	07:57	1.7	4.1	87.3	6.0	07:44	59.4	1.5	3.8	SEC2	32.2	15.3	24	015/12.0	Fair	1.01	07:04	07:50	Y	Cruises passed at 0622 and 0852
03/22/04	10:00	74	1.3	8.2	11:10	53.6	0.3	8.8	0.6	11:17	42.6	0.4	-0.7	SEC2	32.5	14.8	317	009/13.0	Fair	1.72	10:20	11:00	Y	
03/22/04	13:15	75	0.0	5.5	14:15	0.0	0.0	5.5	0.0	14:24	0.0	0.0	0.0	SEC1	27.8	14.4	172	000/12.0	Fair	0.83	13:32	14:04	Y	
03/22/04	16:21	76	0.7	8.5	17:07	0.8	9.9	7.7	1.3	17:15	4.3	0.9	0.8	SEC1	35.3	16.0	138	348/13.0	Partly Cloudy	1.13	16:27	16:57	Y	Cruise ship departed 1623 (log)
03/22/04	19:05	77	3.0	21.8	20:10	79.0	4.5	18.6	21.1	20:18	3.5	19.7	18.2	SEC2	30.3	15.9	114	348/13.0	Fair	1.54	19:11	21:00	Y	
03/22/04	21:55	78	2.0	70.4	23:18	1.4	2.3	68.4	2.5	23:27	2.7	5.2	0.5	SEC2	31.1	13.6	140	353/19.0	Fair	0.82	22:27	23:02	Y	
03/23/04		79						0.0					0.0					035/24.1	Partly Cloudy	1.08	01:33	01:59	Y	No Cycle/Weather
03/23/04	04:10	80	0.0	0.0	04:37	0.0	13.5	0.0	0.0	04:42	0.0	0.0	0.0	SEC1	35.5	14.5	250	039/22.9	Partly Cloudy	0.38	04:22	04:50	Y	Cruise ship passed near dredge at 0640
03/23/04	07:16	81	1.4	44.1	07:28	54.7	3.1	42.7	22.8	07:39	0.5	5.0	21.2	SEC2	29.9	15.0	292	040/22.0	Fair	1.06	07:13	08:05	Y	
03/23/04	10:38	82	0.0	249.4	11:11	34.1	0.0	249.4	0.1	11:17	19.0	0.0	0.1	SEC2	31.7	15.6	288	048/21.0	Fair	1.83	10:44	11:24	Y	
03/23/04	13:41	83	0.0	0.0	14:22	0.0	7.5	0.0	0.0	14:30	0.0	0.2	0.0	SEC2	27.7	15.4	240	089/22.9	Few Clouds	1.21	13:57	14:22	Y	Cruise ship passed sec one 1432 (log)
03/23/04	16:53	84	1.1	11.0	18:06	112.7	7.5	9.8	33.2	18:13	64.2	4.5	32.1	SEC2	29.8	13.8	240	077/20.0	Fair	0.16	17:18	17:49	Y	Cruise ship passed 1530 (log)
03/23/04	20:35	85	0.1	18.3	20:59	0.0	8.2	19.2	19.3	21:08	0.0	8.5	19.2	SEC1	37.9	15.3	294	068/21.0	Fair	0.64	20:16	20:48	Y	
03/23/04	23:00	86	0.0	8.1	23:26	0.0	0.0	8.1	0.0	23:37	0.0	0.0	0.0	SEC1	36.8	13.9	298	050/17.1	Few Clouds	1.22	22:51	23:18	Y	
03/24/04	01:50	87	0.0	2.7	02:21	5.3	20.8	2.7	0.8	02:27	2.9	0.0	0.8	SEC1	30.7	15.5	238	058/24.1	Light rain	1.08	01:52	02:23	Y	
03/24/04	05:03	88	0.0	7.0	05:27	0.0	0.0	7.0	5.0	05:33	0.0	0.0	5.0	SEC1	31.5	15.5	238	053/21.0	Partly Cloudy	0.47	04:58	05:26	Y	
03/24/04	07:48	89	0.0	62.6	07:58	80.8	0.7	62.6	8.0	08:11	40.4	0.0	8.0	SEC1	35.6	14.8	305	051/22.9	Fair	0.95	07:38	08:14	Y	Coast cutter passing site 1 0723
03/24/04		90						0.0					0.0					085/26.0	Fair	1.53	10:31	11:22	Y	No Cycle/Weather
03/24/04		91						0.0					0.0					094/25.1	Few Clouds	1.39	14:21	14:54	Y	No Cycle/Weather
03/24/04		92						0.0					0.0					088/22.0	Fair	0.17	17:44	18:30	Y	No Cycle/Weather
03/24/04		93						0.0					0.0					063/23.0	Partly Cloudy	0.80	21:28	22:09	Y	No Cycle/Weather
03/25/04		94						0.0					0.0					078/23.0	Fair	1.31	01:05	01:33	Y	No Cycle/Weather
03/25/04		95						0.0					0.0					049/22.0	Partly Cloudy	0.80	05:21	05:48	Y	No Cycle/Weather
03/25/04	08:22	96	3.8	24.3	08:45	134.4	33.3	29.5	9.0	08:55	75.9	8.2	5.2	SEC2	31.5	15.1	281	050/21.0	Partly Cloudy	1.30	08:29	09:28	Y	
03/25/04	12:07	97	0.0	0.0	12:28	0.0	3.4	0.0	0.0	12:31	0.0	0.0	0.0	SEC1	31.5	15.1	251	068/16.0	Mostly Cloudy	1.90	12:03	12:31	Y	
03/25/04	15:00	98	1.5	13.0	16:07	5.4	20.8	11.4	8.0	16:15	2.5	27.7	6.5	SEC2	30.4	14.3	242	067/22.0	Mostly Cloudy	1.15	15:12	15:49	Y	
03/25/04		99																067/22.9	Partly Cloudy	0.87	19:03	19:48	Y	No Cycle/Weather
03/25/04		100																055/22.9	Partly Cloudy	0.72	23:24	00:10	Y	No Cycle/Weather

March 19 - March 25
(R'd 4/1/04)

KEY WEST HARBOR DREDGING
Operational Control Turbidity Monitoring
Weekly Report for Week Ending 1 April 2004

**This information is provided in partial fulfillment of the
monitoring requirements in:**

**Permit No. 0207625-001-E1,
Key West Maintenance Dredging Project.**

Sampling and Analysis: 3/26/2004-4/1/2004

Prepared by:

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Gainesville, FL 32608
Telephone: (352) 377-2349**

The collection of the turbidity data reported herein used a weighted hydrodynamic tow-fish with a mounted 4-beam turbidity sensor. The sensor is an infrared optical measuring unit that determines the turbidity level in a given water sample reported as NTU's. The turbidity sensor utilizes the GLI Method 2 for the measurement of turbidity. GLI Method 2 joins EPA Method 180.1 and Standard Methods for the examination of water and waste water Method 2130B as EPA-approved for measuring turbidity.

Accuracy and precision statistics for turbidity are gathered from comparative measurements made using second source calibration verification standards and measurements of field check samples. A Hach model 2100P turbidimeter with independent calibration standards is also used to evaluate precision and accuracy.

This report covers Dredging which occurred between 3/26/04 and 4/01/04 with turbidity monitoring taking place each dredging cycle except where noted. There were a number of turbidity readings out of compliance at both the resource and edge of mixing zone sites. Construction activities ceased as the dredge had already left for the disposal site. Upon the dredge's return approximately two to three hours later, the turbidity had returned to acceptable levels.

Monitoring did not occur due to weather on 3/26/04 dredge cycle numbers 101, 104, and 105. In addition, turbidity data were not collected on 3/30/04 dredge cycle 134 and 3/31/04 dredge cycle 142 due to computer problems. Each problem was rectified.

KWHD OCTM Data Reporting Form																				Comments
Date	Back Ground Station Time	Dredge Cycle #	Back Ground (NTU)	Resource Compliance (NTU)	Resource Time	Background Resource delta (NTU)	Edge Compliance (NTU)	Edge Time	Background Edge delta (NTU)	Location	Depth of Water (ft)	Depth of Sample (ft)	Current Direction (deg)	Wind (deg/kts)	Weather Conditions	Tidal Stage MLLW (ft)	Dredge Start Down Yr	Dredge Cycle Start Time	Dredge Cycle Stop Time	
03/26/04	03:08	101				0.0			0.0					079/25.1	Few Clouds	0.93	Y	03:07	03:30	No Cycle/Weather
03/26/04	07:22	102	7.0	43.2	07:38	36.3	22.5	07:42	15.6	SEC2	32.3	15.7	248	053/20.0	Overcast	0.75	Y	07:01	07:57	
03/26/04	10:48	103	0.0	33.5	11:07	33.5	3.5	11:18	3.5	SEC1	35.5	14.8	278	056/24.1	Mostly Cloudy	1.48	Y	10:46	11:18	
03/26/04	13:50	104				0.0			0.0					063/25.1	Partly Cloudy	1.59	Y	14:01	15:20	No Cycle/Weather
03/26/04	18:00	105				0.0			0.0					075/24.1	Partly Cloudy	0.47	Y	18:22	18:57	No Cycle/Weather
03/26/04	20:54	106	0.0	32.9	22:15	32.9	2.5	22:22	2.5	SEC1	35.9	16.1	287	056/18.1	Partly Cloudy	0.30	Y	21:21	21:56	
03/26/04	23:49	107	0.0	8.8	00:53	8.8	9.7	01:02	9.7	SEC1	28.6	14.4	313	062/21.0	Few Clouds	0.77	Y	00:10	00:38	
03/27/04	03:24	108	0.0	14.8	03:38	14.8	0.2	03:46	0.2	SEC1	31.1	15.3	258	060/22.8	Partly Cloudy	0.90	Y	03:13	03:42	
03/27/04	06:25	109	8.7	17.4	06:46	8.7	17.3	06:53	6.6	SEC2	32.5	15.3	231	068/20.0	Few Clouds	0.80	Y	06:23	07:41	
03/27/04	10:23	110	0.0	0.4	10:43	0.4	1.2	10:53	1.2	SEC1	32.5	15.3	204	060/18.0	Partly Cloudy	1.34	Y	10:22	11:03	
03/27/04	13:04	111	0.0	10.4	14:11	10.4	0.8	14:19	0.8	SEC1	39.0	18.3	310	065/20.0	Overcast	1.73	Y	13:29	13:59	
03/27/04	16:08	112	0.3	50.9	17:14	50.6	8.4	17:23	9.1	SEC1	34.9	14.3	224	063/20.0	Fair	1.31	Y	16:29	17:01	
03/27/04	19:02	113	4.6	13.0	20:35	8.4	23.9	20:42	19.3	SEC1	34.9	15.8	249	071/22.0	Fair	0.61	Y	19:23	20:21	
03/27/04	22:11	114	0.0	43.9	23:33	43.9	10.2	23:38	10.2	SEC1	38.4	14.8	295	063/20.0	Fair	0.48	Y	22:41	23:29	
03/28/04	01:55	115	0.0	2.9	02:01	2.9	0.0	02:09	0.0	SEC1	34.3	14.9	286	058/18.0	Mostly Cloudy	0.87	Y	01:33	02:08	
03/28/04	04:16	116	0.0	3.0	04:36	3.0	11.0	04:50	11.0	SEC1	34.0	15.5	277	061/18.0	Mostly Cloudy	1.00	Y	04:06	04:38	
03/28/04	06:23	117	0.0	19.5	06:35	19.5	0.0	07:10	0.0	SEC1	31.5	14.5	261	073/18.1	Few Clouds	0.93	Y	06:30	07:08	Coast Guard cutter 07.51
03/28/04	09:09	118	0.0	12.7	09:38	12.7	0.0	09:54	0.0	SEC1	32.8	14.8	257	053/18.0	Few Clouds	0.98	Y	09:12	09:52	
03/28/04	11:54	119	0.0	17.5	12:17	17.5	5.1	12:24	5.1	SEC1	33.5	15.0	275	085/18.1	Fair	1.26	Y	11:58	12:42	2 cruise ships 10:50 and 11:00
03/28/04	14:32	120	0.0	12.4	15:28	12.4	1.3	15:33	1.3	SEC1	38.2	14.5	270	073/14.0	Fair	1.54	Y	14:46	15:15	
03/28/04	17:18	121	0.0	58.3	18:14	58.3	0.0	18:23	0.0	SEC1	34.7	13.5	178	087/11.1	Fair	1.15	Y	16:39	17:31	
03/28/04	20:02	122	3.3	5.2	21:43	5.2	0.5	21:58	-0.6	SEC2	31.9	11.7	190	071/12.1	Fair	0.48	Y	19:12	20:21	
03/28/04	00:11	123	3.4	36.4	01:24	33.0	18.5	01:32	15.1	SEC2	30.3	14.2	274	083/13.0	Fair	0.44	Y	00:01	01:20	
03/28/04	03:33	124	0.0	0.3	05:08	0.3	8.0	05:22	8.0	SEC1	34.5	14.4	295	051/11.1	Fair	0.84	Y	03:24	04:48	
03/28/04	08:59	125	0.0	18.5	07:42	18.5	0.8	07:45	0.8	SEC1	32.9	14.5	287	039/10.0	Fair	0.98	Y	07:06	08:34	Cruise ship passing thru SEC1 0853 Cruise ship passing thru SEC2 0704
03/28/04	07:18	125	2.3	58.8	08:01	58.8	1.7	08:28	-4.8	SEC2	31.5	14.8	194	040/11.1	Fair	0.96	Y	11:01	12:42	
03/28/04	10:58	126	2.1	13.7	11:28	11.8	8.4	11:38	7.3	SEC2	33.2	14.5	220	006/11.1	Few Clouds	1.06	Y	11:01	12:42	Dredge moved from SEC1 to SEC2
03/28/04	14:48	127	0.0	25.5	15:53	25.5	0.0	16:00	0.0	SEC1	37.4	14.8	292	012/12.1	Fair	1.44	Y	14:53	15:38	Cruise ship passing thru SEC1 1443
03/28/04	17:42	128	0.0	54.3	18:39	54.3	1.8	18:47	1.8	SEC1	35.5	15.6	244	338/9.9	Fair	1.28	Y	17:50	18:28	Tugboat passes over DG2 1708, Coast Guard cutter passes dredge 1804
03/28/04	20:20	129	0.0	11.2	21:14	11.2	0.0	21:34	0.0	SEC1	36.4	15.2	178	039/13.0	Overcast	0.90	Y	20:26	20:58	
03/28/04	22:56	130	0.0	0.2	23:42	0.2	5.8	23:54	5.8	SEC1	34.4	13.9	218	043/8.8	Fair	0.22	Y	22:53	23:33	
03/30/04	01:36	131	0.0	0.0	01:43	0.0	0.0	01:48	0.0	SEC1	32.2	15.6	274	043/8.0	Overcast	0.48	Y	01:25	01:52	
03/30/04	03:32	132	0.0	0.0	04:15	0.0	0.0	04:22	0.0	SEC1	35.0	14.8	299	046/8.9	Partly Cloudy	0.72	Y	03:48	04:18	
03/30/04	06:42	133	0.0	14.8	07:23	14.8	0.4	07:28	0.4	SEC1	34.0	14.9	280	058/8.0	Fair	1.00	Y	06:51	08:11	3 cruise ships in area 06:00-08:33
03/30/04	08:58	133	0.0	11.3	07:49	11.3	1.3	07:54	1.3	SEC2	30.2	14.3	290	058/6.0	Fair	1.01	Y	08:51	08:11	Dredge moved from SEC1 to SEC2
03/30/04	11:50	134				0.0			0.0					009/1.94	Fair	1.84	Y	11:28	12:08	Computer problems
03/30/04	14:02	135	0.0	0.0	15:46	0.0	0.1	15:55	0.1	SEC1	38.4	14.9	216	357/4.1	Fair	1.34	Y	14:09	15:38	3 cruise ships in area 1415-1457
03/30/04	17:48	136	0.0	27.1	18:14	27.1	0.8	18:20	0.8	SEC2	40.1	17.8	349	333/6.0	Fair	1.54	Y	17:44	19:35	
03/30/04	19:38	136	1.0	12.7	19:46	11.8	0.0	19:52	-1.9	SEC1	35.1	15.9	115	329/9.0	Fair	1.23	Y	17:44	18:35	Dredge moved from SEC2 to SEC1 Tug pulling ferry in SEC2 1908
03/30/04	21:28	137	1.7	1.0	23:04	-0.7	2.1	23:07	0.4	SEC2	32.8	15.6	143	324/9.9	Fair	0.72	Y	21:44	23:29	
03/30/04	23:25	137	0.0	33.8	23:26	33.9	0.0	23:35	0.0	SEC1	35.9	15.78	180	322/8.0	Fair	0.32	Y	21:44	23:26	Dredge moved from SEC1 to SEC2
03/30/04	02:18	138	0.0	3.0	02:23	3.8	0.0	02:32	0.0	SEC1	34.5	14.8	085	338/2.9	Fair	0.49	Y	01:37	02:28	Readings were late due to computer problems
03/30/04	04:31	139	0.0	1.0	05:44	1.0	0.0	05:55	0.0	SEC1	34.9	15.5	013	341/5.1	Fair	0.78	Y	03:58	04:34	
03/30/04	06:54	140	0.2	14.3	07:27	14.1	0.0	07:31	-0.2	SEC2	39.5	15.4	330	358/2.8	Fair	1.07	Y	06:50	07:56	
03/30/04	07:48	140	0.0	9.3	08:05	9.3	0.0	08:14	0.0	SEC1	37.0	15.9	018	222/1.0	Fair	1.08	Y	06:50	07:56	Dredge moved from SEC1 to SEC2
03/30/04	09:41	141	0.0	13.8	10:29	13.8	0.0	11:00	0.0	SEC1	36.5	15.8	185	183/2.9	Fair	0.98	Y	09:58	10:45	
03/30/04	13:20	142				0.0			0.0									12:43	13:20	Computer problems
03/30/04	16:02	143	0.0	7.2	16:48	7.2	0.0	16:52	0.0	SEC1	38.3	16.0	084	248/9.9	Fair	1.44	Y	15:52	16:41	Cruise ship passing thru SEC1 1548
03/30/04	18:31	144	0.0	0.0	18:53	0.0	0.0	18:53	0.0	SEC1	35.4	14.7	090	253/9.9	Fair	1.87	Y	18:39	20:45	Dredge moved from SEC1 to SEC2
03/30/04	19:10	144	0.0	23.9	20:07	23.9	10.3	20:10	10.3	SEC2	30.9	14.9	072	252/11.1	Fair	1.61	Y	18:39	20:45	Dredge moved from SEC1 to SEC2
03/30/04	20:35	144	0.0	0.0	20:46	0.0	0.0	20:50	0.0	SEC1	36.1	14.0	133	257/12.1	Fair	1.24	Y	18:39	20:45	Dredge moved from SEC1 to SEC2
03/30/04	23:04	145	0.0	0.0	23:35	0.0	3.3	23:44	3.3	SEC1	35.8	14.1	146	258/8.9	Fair	0.59	Y	22:52	23:29	
04/01/04	01:42	146	0.4	0.7	02:05	0.4	0.3	02:16	-0.1	SEC9	28.2	15.2	203	288/11.1	Few Clouds	0.27	Y	01:58	02:48	
04/01/04	05:17	147	1.6	3.8	05:38	2.9	0.2	05:48	-1.4	SEC9	36.8	14.5	014	282/15.0	Few Clouds	1.00	Y	05:30	06:06	Cruise ship passing thru SEC2 0612, Cruise ship passing thru SECs 7.8.9 0615
04/01/04	08:53	148	0.0	1.2	09:36	1.2	2.2	09:43	2.2	SEC9	37.5	14.5	189	304/15.0	Fair	1.17	Y	09:33	10:56	Cruise ship passing thru 0900, Cruise ship passing thru SECs 0903 & 0910
04/01/04	12:13	149	2.4	10.1	13:35	7.7	1.9	13:58	-0.5	SEC9	36.1	15.0	193	328/13.0	Fair	0.65	Y	13:27	13:59	
04/01/04	16:32	150	1.3	1.7	16:51	0.4	1.5	17:17	0.2	SEC9	37.2	15.7	354	331/17.1	Fair	1.15	Y	16:45	17:25	
04/01/04	19:59	151	1.5	1.9	20:31	0.5			-1.5	SEC9	30.5	15.1		323/14.0	Fair	1.48	Y	20:28	21:49	Could not complete edge compliance due to low fish depth too shallow at compliance point

March 26 - April 1
(Ric'd 4/8/04)

KEY WEST HARBOR DREDGING
Operational Control Turbidity Monitoring
Weekly Report for Week Ending 08 April 2004

**This information is provided in partial fulfillment of the
monitoring requirements in:**

**Permit No. 0207625-001-E1,
Key West Maintenance Dredging Project.**

Sampling and Analysis: 4/02/2004-4/08/2004

Prepared by:

**PPB Environmental Laboratories, Inc.
6821 SW Archer Road
Gainesville, FL 32608
Telephone: (352) 377-2349**

The collection of the turbidity data reported herein used a weighted hydrodynamic tow-fish with a mounted 4-beam turbidity sensor. The sensor is an infrared optical measuring unit that determines the turbidity level in a given water sample reported as NTU's. The turbidity sensor utilizes the GLI Method 2 for measurement of turbidity. GLI Method 2 joins EPA Method 180.1 and Standard Methods for the examination of water and waste water Method 2130B as EPA-approved for measuring turbidity.

Accuracy and precision statistics for turbidity are gathered from comparative measurements made using second source calibration verification standards and measurements of field check samples. A Hach model 2100P turbidimeter with independent calibration standards is also used to evaluate precision and accuracy.

This report covers dredging which occurred between 4/2/04 and 4/8/04 with turbidity monitoring taking place each dredging cycle. There were turbidity readings out of compliance at five edge of mixing zone sites. Construction activities ceased as the dredge had already left for the disposal site. Upon the dredge's return the turbidity had returned to acceptable levels.

KWHD OCTM Data Reporting Form																								
Date	Back Ground Station Time	Dredge Cycle #	Back Ground (NTU)	Resource Compliance (NTU)	Resource Time	Resource Compliance Wing RT (NTU)	Resource Compliance Wing LT (NTU)	Background Resource delta (NTU)	Edge Compliance (NTU)	Edge Time	Edge Compliance Wing RT (NTU)	Edge Compliance Wing LT (NTU)	Background Edge delta (NTU)	Location	Depth of Water Body (ft)	Depth of Sample (ft)	Current Direction (deg)	Wind (deg/kts)	Weather Conditions	Tide Stage RELW (ft)	Dredge Shot Down Y/N	Dredge Cycle Start Time	Dredge Cycle Stop Time	Comments
040304	00:38	132	4.2	4.6	01:02	N/A	N/A	8.6	3.3	01:09	N/A	N/A	-4.8	SECB	35.5	15.7	184	285/11.1	Fair	0.03	Y	00:44	01:45	
040304	03:52	153	1.0	2.0	04:28	N/A	N/A	1.8	1.8	04:37	N/A	N/A	0.8	SECB	38.5	15.9	358	311/12.1	Fair	0.31	Y	04:18	05:14	
040304	07:20	154	2.5	3.3	08:33	N/A	N/A	0.8	2.1	08:40	N/A	N/A	-0.4	SECB	36.1	15.8	007	314/8.9	Fair	1.13	Y	08:23	09:51	
040304	11:25	155	2.8	2.7	11:53	N/A	N/A	0.2	3.5	12:08	N/A	N/A	0.9	SECB	36.1	15.0	190	326/15.9	Fair	0.80	Y	11:49	12:45	
040304	14:53	156	2.3	1.8	15:14	N/A	N/A	-0.8	2.7	15:21	N/A	N/A	0.4	SECB	29.1	13.9	224	356/9.9	Mostly Cloudy	0.54	Y	15:12	15:24	
040304	18:26	157	2.0	3.2	18:49	N/A	N/A	1.2	2.3	18:56	N/A	N/A	0.3	SECB	39.2	16.0	338	345/8.0	Fair	1.51	Y	18:40	19:03	2 Cruise ships in area 1727 to 1740
040304	22:01	158	2.4	3.1	22:29	N/A	N/A	0.7	2.4	22:29	N/A	N/A	0.8	SECB	29.9	13.4	188	273/8.9	Fair	1.40	Y	22:18	22:45	
040304	01:42	159	3.8	6.7	02:02	N/A	N/A	2.1	5.9	02:18	N/A	N/A	2.2	SECB	36.4	18.0	191	304/14.0	Partly Cloudy	0.29	Y	01:59	03:02	
040304	05:13	160	4.7	8.4	05:38	N/A	N/A	0.7	2.8	05:51	N/A	N/A	-1.9	SECB	36.8	18.0	005	302/13.0	Few Clouds	0.81	Y	06:31	06:41	
040304	08:48	161	2.7	7.3	09:40	N/A	N/A	4.6	2.8	09:52	N/A	N/A	0.1	SECB	37.2	18.8	001	298/12.1	Mostly Cloudy	1.62	Y	09:29	10:34	
040304	12:49	162	3.6	11.5	13:21	N/A	N/A	7.9	5.0	13:33	N/A	N/A	1.8	SECB	36.5	17.8	190	348/8.0	Fair	0.27	Y	13:13	13:36	
040304	16:34	163	0.6	1.8	17:08	N/A	N/A	1.8	1.2	17:13	N/A	N/A	0.8	SECB	32.1	16.7	007	322/11.1	Fair	0.69	Y	16:57	18:18	
040304	21:04	164	1.8	1.5	21:22	N/A	N/A	-0.3	1.0	21:29	N/A	N/A	-0.8	SECB	37.5	13.7	018	324/11.1	Fair	1.70	Y	21:15	22:29	
040404	00:57	165	3.8	5.8	01:18	N/A	N/A	2.5	6.1	01:32	N/A	N/A	2.3	SECB	35.2	14.8	189	312/8.9	Fair	0.19	Y	01:14	03:15	
040404	08:03	188	1.2	2.1	08:30	N/A	N/A	0.8	1.9	08:40	N/A	N/A	0.8	SECB	38.5	14.2	356	302/8.0	Fair	1.02	Y	08:21	07:40	Cruise ship passes 0801
040404	09:34	167	2.8	5.8	09:59	N/A	N/A	3.0	2.2	10:11	N/A	N/A	-0.8	SECB	37.5	13.8	001	284/8.9	Fair	1.72	Y	09:49	11:05	Coast Guard cutter passes thru sec 8 & 9 10:35
040404	13:27	168	5.2	8.0	13:58	N/A	N/A	2.8	8.7	14:06	N/A	N/A	2.1	SECB	36.8	14.3	181	335/11.1	Fair	0.21	Y	13:55	15:01	
040404	17:16	169	0.8	1.8	17:37	N/A	N/A	1.3	0.7	17:40	N/A	N/A	0.1	SECB	30.3	12.5	309	319/8.0	Fair	0.81	Y	17:28	18:32	
040404	21:08	170	1.7	2.8	21:23	N/A	N/A	0.8	3.1	21:33	N/A	N/A	1.4	SECB	37.5	14.8	352	298/7.0	Fair	1.78	Y	21:18	21:48	
040504	00:18	171	3.3	3.4	00:38	N/A	N/A	0.1	1.8	00:45	N/A	N/A	-1.7	SECB	37.2	15.7	194	302/12.1	Fair	1.85	Y	00:30	01:28	
040504	03:48	172	4.8	6.5	04:11	N/A	N/A	0.8	6.4	04:21	N/A	N/A	0.6	SECB	30.5	14.8	186	305/11.1	Fair	0.36	Y	04:07	04:28	
040504	07:34	173	5.7	5.8	07:57	N/A	N/A	-0.1	3.4	08:06	N/A	N/A	-2.3	SECB	31.0	14.7	002	344/15.8	Fair	1.50	Y	07:49	08:25	
040504	11:19	174	0.5	1.2	11:51	N/A	N/A	0.7	1.1	11:55	N/A	N/A	0.6	SECB	32.4	15.8	220	011/8.0	Fair	1.50	Y	11:37	12:01	
040504	15:04	175	5.9	6.4	15:07	N/A	N/A	-0.4	8.8	15:19	N/A	N/A	2.9	SECB	35.4	15.5	180	009/4.1	Fair	-0.10	Y	15:32	16:18	
040504	18:48	176	0.0	1.2	19:16	N/A	N/A	1.5	1.7	19:23	N/A	N/A	1.7	SECB	30.8	13.3	349	322/1.9	Fair	0.73	Y	18:03	19:54	
040504	22:30	177	1.1	1.0	22:51	N/A	N/A	-0.1	0.8	22:55	N/A	N/A	-0.8	SECB	32.2	15.7	328	340/9.9	Fair	1.72	Y	22:38	23:12	
040604	01:47	178	2.2	1.7	02:01	N/A	N/A	-0.8	2.5	02:12	N/A	N/A	0.3	SECB	35.7	14.9	188	018/7.0	Fair	0.89	Y	01:57	02:18	
040604	04:43	179	2.1	3.1	05:14	N/A	N/A	1.0	2.7	05:23	N/A	N/A	0.8	SECB	35.8	17.2	196	056/8.9	Fair	0.47	Y	05:11	05:19	
040604	08:07	180	2.2	1.7	08:24	N/A	N/A	-0.8	2.8	08:32	N/A	N/A	0.7	SECB	36.2	15.4	004	071/8.9	Fair	1.58	Y	08:15	08:30	Dredge followed cruise ship up channel 0801
040604	11:37	181	1.1	1.5	12:01	N/A	N/A	0.4	1.2	12:11	N/A	N/A	0.1	SECB	37.5	15.5	009	073/8.0	Fair	1.87	Y	11:53	12:25	
040604	15:23	182	5.8	16.5	15:52	N/A	N/A	18.7	2.4	16:14	N/A	N/A	-3.8	SECB	35.3	15.5	179	100/8.0	Fair	-0.14	Y	15:42	16:15	Cruise ship inbound SECT 1502. Cruise ship inbound SECB 1627
040604	18:40	183	0.8	1.7	19:07	N/A	N/A	1.1	1.8	19:17	N/A	N/A	1.8	SECB	35.5	15.6	344	119/11.1	Fair	0.18	Y	18:58	19:50	
040604	22:39	184	1.0	1.4	22:50	N/A	N/A	0.3	3.9	23:14	N/A	N/A	2.0	SECB	37.5	14.8	356	107/14.0	Fair	1.63	Y	22:39	00:03	
040704	01:58	185	2.5	2.6	02:38	N/A	N/A	0.0	3.2	02:45	N/A	N/A	0.8	SECB	36.2	14.2	178	111/12.1	Fair	0.84	Y	02:31	02:57	
040704	05:53	186	1.8	2.6	06:20	N/A	N/A	0.8	2.2	06:26	N/A	N/A	0.8	SECB	38.0	14.4	199	113/12.1	Few Clouds	0.74	Y	05:15	06:30	
040704	09:37	187	3.3	3.6	10:10	N/A	N/A	0.2	3.2	10:18	N/A	N/A	-0.1	SECB	37.8	15.3	004	127/14.8	Fair	1.86	Y	10:02	10:26	
040704	13:17	188	1.4	3.5	13:57	N/A	N/A	2.1	2.3	14:13	N/A	N/A	0.8	SECB	37.9	14.8	188	097/8.0	Fair	1.13	Y	13:45	14:19	
040704	16:39	189	0.4	8.3	17:22	N/A	N/A	1.9	3.8	17:35	N/A	N/A	-3.6	SECB	35.9	15.3	196	115/12.1	Fair	-0.38	Y	17:13	18:00	
040704	20:34	190	0.7	1.3	20:52	N/A	N/A	0.6	0.3	21:04	N/A	N/A	-0.4	SECB	38.1	15.4	015	084/11.1	Few Clouds	0.54	Y	20:42	21:38	
040804	00:02	191	1.1	1.8	00:34	N/A	N/A	0.8	1.0	00:48	N/A	N/A	-0.1	SECB	37.1	15.9	009	147/14.0	Fair	1.44	Y	00:23		
040804	04:06	192	1.8	8.4	04:28	N/A	N/A	3.0	7.2	04:55	N/A	N/A	5.4	SECB	36.1	14.2	188	188/5.0	Fair	0.58	Y	04:14	04:30	
040804	08:07	193	0.8	1.8	08:57	N/A	N/A	1.3	1.2	08:19	N/A	N/A	0.6	SECB	30.9	14.9	263	188/5.0	Fair	1.39	Y	07:47	08:14	
040804	11:08	194	1.8	4.2	11:14	N/A	N/A	2.4	3.3	11:22	N/A	N/A	1.8	SECB	42.1	15.6	358	223/2.7	Fair	2.29	Y	11:08	11:17	
040804	11:35	195	1.2	1.8	11:35	N/A	N/A	0.8	1.4	11:57	N/A	N/A	0.2	SECB	37.7	15.0	342	217/5.1	Fair	2.23	Y	11:36	12:02	

April 2 - April 8
(Rec'd 4/20/04)

KEY WEST HARBOR DREDGING
Operational Control Turbidity Monitoring
Weekly Report for Week Ending 15 April 2004

**This information is provided in partial fulfillment of the
monitoring requirements in:**

**Permit No. 0207625-001-E1,
Key West Maintenance Dredging Project.**

Sampling and Analysis: 4/09/2004-4/14/2004

Prepared by:

**PPB Environmental Laboratories, Inc.
6821 SW Archer Road
Gainesville, FL 32608
Telephone: (352) 377-2349**

The collection of the turbidity data reported herein used a weighted hydrodynamic tow-fish with a mounted 4-beam turbidity sensor. The sensor is an infrared optical measuring unit that determines the turbidity level in a given water sample reported as NTU's. The turbidity sensor utilizes the GLI Method 2 for measurement of turbidity. GLI Method 2 joins EPA Method 180.1 and Standard Methods for the examination of water and waste water Method 2130B as EPA-approved for measuring turbidity.

Accuracy and precision statistics for turbidity are gathered from comparative measurements made using second source calibration verification standards and measurements of field check samples. A Hach model 2100P turbidimeter with independent calibration standards is also used to evaluate precision and accuracy.

This report covers dredging which occurred between 4/9/04 and 4/14/04 with turbidity monitoring taking place each dredging cycle. There were turbidity readings out of compliance at both the resource and edge of mixing zone sites. Construction activities ceased as the dredge had already left for the disposal site. Upon the dredge's return the turbidity had returned to acceptable levels.

Monitoring did not occur due to weather on 4/14/04 dredge cycle numbers 227 and 228. In addition, turbidity data was not collected on 4/12/04 dredge cycle 219 due to equipment problems. The problems were rectified and monitoring commenced with the next dredge cycle.

Demobilization of the Eagle 1 dredge occurred on 4/15/04 and the Maricavor dredge is scheduled to mobilize to Key West in early May 2004.

KWHI OCTM Data Reporting Form																								
Date	Back Ground Station Time	Dredge Cycle #	Back Ground (NTU)	Resource Compliance (NTU)	Resource Time	Resource Compliance Wing RT (NTU)	Resource Compliance Wing LT (NTU)	Background Resource delta (NTU)	Edge Compliance (NTU)	Edge Time	Edge Compliance Wing RT (NTU)	Edge Compliance Wing LT (NTU)	Background Edge delta (NTU)	Location	Depth of Water Body (ft)	Depth of Sample (ft)	Current Direction (deg)	Wind (deg/kts)	Weather Conditions	Total Stage MLLW (ft)	Dredge Shut Down Y/N	Dredge Cycle Start Time	Dredge Cycle Stop Time	Comments
04/09/04	03:23	198	1.4	17.2	03:54	N/A	N/A	15.8	1.8	04:06	N/A	N/A	0.5	SEC9	36.9	15.3	188	203/4.1	Fair	0.87	Y	03:43	04:04	
04/09/04	07:17	199	4.2	6.7	07:17	N/A	N/A	2.5	2.9	08:18	N/A	N/A	-1.3	SEC9	35.9	16.2	198	182/4.1	Fog/fair	0.99	Y	07:45	08:15	2 Cruise ships in area 0717
04/09/04	11:28	200	1.4	6.9	11:42	N/A	N/A	5.5	2.1	12:08	N/A	N/A	0.7	SEC9	37.4	13.2	006	222/1.8	Fog/fair	2.16	Y	11:28	11:55	
04/09/04	15:42	201	3.0	4.7	16:28	N/A	N/A	1.7	3.2	16:42	N/A	N/A	0.1	SEC9	36.6	13.5	182	205/5.1	Fair with haze	0.95	Y	15:34	17:24	
04/09/04	19:31	202	4.0	6.5	20:18	N/A	N/A	2.6	0.9	20:45	N/A	N/A	-3.2	SEC9	35.3	13.5	200	295/5.1	Fair	-0.26	Y	19:34	21:19	
04/09/04	23:58	203	2.7	3.5	00:17	N/A	N/A	0.8	2.0	00:27	N/A	N/A	-6.8	SEC9	28.6	16.9	017	218/6.9	Fair	0.78	Y	23:41	00:54	
04/10/04	04:14	204	1.4	2.9	04:38	N/A	N/A	1.5	3.8	04:47	N/A	N/A	2.4	SEC9	36.2	14.2	175	263/1.0	Fair	0.89	Y	04:21	04:38	
04/10/04	07:30	205	3.0	3.8	08:15	N/A	N/A	0.7	1.8	08:32	N/A	N/A	-1.2	SEC9	36.0	15.0	191	000/0.0	Partly Cloudy	0.84	Y	08:06	08:30	
04/10/04	11:45	206	3.3	6.4	12:09	N/A	N/A	3.1	4.3	12:20	N/A	N/A	1.0	SEC9	36.3	14.6	002	357/4.1	Mostly Cloudy	1.74	Y	11:51	12:10	
04/10/04	14:55	207	2.6	3.5	15:33	N/A	N/A	0.8	6.4	15:48	N/A	N/A	2.4	SEC9	29.0	11.0	212	011/6.0	Fair	1.45	Y	14:54	16:19	
04/10/04	18:34	208	3.2	6.9	19:11	N/A	N/A	0.7	0.4	19:39	N/A	N/A	-2.8	SEC9	35.9	15.3	198	319/1.0	Fair	0.00	Y	18:23	19:20	
04/10/04	22:19	209	2.4	2.9	22:33	N/A	N/A	0.5	1.9	22:42	N/A	N/A	-0.8	SEC9	35.6	14.2	014	129/2.9	Fair	0.09	Y	22:22	23:12	
04/11/04	01:48	210	4.9	4.9	02:04	N/A	N/A	0.9	0.0	02:29	N/A	N/A	-4.9	SEC9	35.6	15.0	358	107/5.1	Fair	0.85	Y	01:55	02:20	
04/11/04	05:17	211	3.9	0.1	05:45	N/A	N/A	-3.9	0.1	06:00	N/A	N/A	-3.9	SEC9	35.4	16.1	178	085/6.9	Few clouds w/ haze	0.84	Y	05:31	05:57	
04/11/04	09:03	212	2.6	3.5	09:29	N/A	N/A	1.0	2.3	09:41	N/A	N/A	-6.3	SEC9	38.7	15.2	195	113/6.0	Fog/fair	0.98	Y	09:15	09:40	
04/11/04	12:58	213	0.0	0.5	13:13	N/A	N/A	0.5	0.2	13:34	N/A	N/A	6.3	SEC9	29.8	17.3	018	131/12.1	Fair	1.92	Y	12:18	13:57	
04/11/04	16:04	214	4.9	3.9	16:43	N/A	N/A	-1.0	0.4	17:00	N/A	N/A	-4.8	SEC9	37.2	15.2	191	109/6.9	Fair	1.72	Y	16:03	17:28	
04/11/04	19:45	215	2.4	10.3	20:35	N/A	N/A	8.9	8.4	20:45	N/A	N/A	6.1	SEC9	36.2	16.2	194	120/13.0	Fair	0.29	Y	19:47	21:19	
04/12/04	01:34	216	3.9	7.7	01:44	N/A	N/A	3.8	1.3	01:48	N/A	N/A	-2.8	SEC9	32.0	18.0	027	077/6.9	Fair	0.63	Y	01:32	01:48	
04/12/04	05:00	217	7.0	6.7	05:16	N/A	N/A	-0.4	7.0	05:24	N/A	N/A	0.9	SEC9	37.0	14.8	008	182/16.1	Fair	1.02	Y	05:04	05:18	
04/12/04	08:00	218	7.2	7.3	08:17	N/A	N/A	0.1	9.8	08:31	N/A	N/A	2.0	SEC9	36.7	15.1	178	013/20.0	Light rain & breezy	0.72	Y	08:00	08:28	
04/12/04	12:30	219						0.0					0.9	SEC9				074/13.0	Few clouds	1.36	Y	12:37	14:08	Missed shift due to equipment problems
04/12/04	16:43	220	3.2	5.3	17:41	N/A	N/A	2.1	3.2	17:56	N/A	N/A	0.9	SEC9	37.9	14.5	204	112/14.0	Few clouds	1.73	Y	16:44	17:53	
04/12/04	20:33	221	2.2	2.4	21:38	N/A	N/A	0.2	3.4	21:52	N/A	N/A	1.2	SEC9	36.2	15.3	183	111/13.0	Mostly Cloudy	0.47	Y	20:17	21:58	
04/13/04	01:18	222	2.2	2.6	01:24	N/A	N/A	0.6	0.7	01:31	N/A	N/A	-1.5	SEC9	35.7	15.6	000	135/17.1	Mostly Cloudy	0.46	Y	00:17	01:40	
04/13/04	06:36	223	7.0	8.9	06:10	N/A	N/A	1.8	7.6	09:26	N/A	N/A	0.8	SEC9	36.7	14.9	174	150/15.0	Mostly Cloudy	0.77	Y	06:55	09:24	Delay between dredge cycles 222 and 223 due to inclement weather
04/13/04	12:22	224	4.5	14.4	12:50	N/A	N/A	9.9	4.6	13:19	N/A	N/A	0.3	SEC9	37.2	14.5	178	210/15.9	Mostly Cloudy	0.91	Y	12:41	13:01	
04/13/04	16:06	225	2.9	9.6	16:43	N/A	N/A	2.8	2.3	16:54	N/A	N/A	-0.8	SEC9	36.4	15.0	014	296/9.9	Overcast	1.36	Y	15:46	17:05	
04/13/04	20:41	226	5.9	6.3	21:16	N/A	N/A	3.4	4.3	21:32	N/A	N/A	-1.7	SEC9	36.2	14.9	196	321/24.1	Overcast	0.44	Y	19:57	22:15	
04/14/04	02:31	227						6.9					0.0					331/24.1	Overcast	-0.09	Y			No cycle/weather
04/14/04	06:25	228						6.9					0.0					324/22.9	Overcast	0.59	Y	06:29	07:17	No cycle/weather
04/14/04	11:33	229	3.6	16.9	11:47	N/A	N/A	13.9	3.6	11:56	N/A	N/A	-0.3	SEC7	36.1	15.3	151	326/15.0	Overcast	-0.67	Y	11:36	11:46	
04/14/04	14:57	230	2.8	6.4	15:57	N/A	N/A	3.7	2.7	16:15	N/A	N/A	0.6	SEC7	37.5	13.5	136	327/20.0	Partly Cloudy	0.86	Y	14:41	16:36	
04/14/04	18:04	231	2.8	43.3	20:07	N/A	N/A	40.7	5.4	20:12	N/A	N/A	2.8	SEC7	37.2	17.3	111	320/21.0	Partly Cloudy	1.03	Y	18:46	19:50	
04/14/04	22:41	232	11.7	64.3	23:43	N/A	N/A	62.5	10.3	23:56	N/A	N/A	-1.4	SEC7	33.6	14.8	166	331/18.1	Partly Cloudy	-0.05	Y	22:45	23:53	

April 9 - April 14
(Rec'd 4/12/04)

KWHB OCTM Data Reporting Form																									
Date	Back Ground Station Time	Daily Data Cycle #	Dredge Coord. (X-ft)	Dredge Coord. (Y-ft)	Back Ground (NTU)	Resorce Station Time	Resorce Wing RT (NTU)	Resorce (NTU)	Resorce Wing LT (NTU)	Bkgmd Resorce delta (NTU)	Edge Station Time	Edge Wing RT (NTU)	Edge (NTU)	Edge Wing LT (NTU)	Bkgmd Edge delta (NTU)	Loc.	Water Depth (ft)	Sample Depth (ft)	Current Dir. (deg)	Wind (deg/fts)	Weather Conditions	Tidal Stage MLLW (ft)	Dredge Shut Down Y/N	Comments	
05/06/04	22:54	101	385,691	71,040	2.4	23:00	2.4	2.8	1.8	0.4	23:11	2.2	1.8	3.3	-0.8	sec7	33.6	16.3	307	081/17.1	Fair	0.86	N		
05/07/04	02:23	201	385,658	71,086	2.5	02:29	33.0	2.7	2.0	0.2	2:42	2.5	2.1	2.5	-0.4	sec7	32.9	16.1	173	085/15.9	Fair	0.49	N		
05/07/04	11:09	202	385,619	71,145	1.8	11:14	2.1	2.0	1.7	0.2	11:20	1.9	1.8	2.1	0.0	sec7	36.0	14.1	300	080/19.0	Fair	1.97	N		
05/07/04	23:33	101	385,614	71,168	3.4	23:40	3.5	5.1	3.9	1.7	23:55	3.1	3.7	3.3	0.3	sec7	30.8	16.0	302	051/18.1	Partly Cloudy	0.58	N		
05/08/04	01:55	201	385,644	71,123	4.3	02:00	3.4	5.2	3.3	0.8	2:25	2.7	4.1	3.4	-0.3	sec7	30.9	16.3	291	053/18.1	Partly Cloudy	0.65	N		
05/08/04	03:52	202	385,626	71,167	2.3	03:52	5.6	3.7	3.2	1.4	4:15	3.6	4.0	4.0	1.7	sec7	34.5	15.6	164	079/20.0	Partly Cloudy	0.54	N		
05/08/04	06:56	203	385,606	71,141	1.5	07:01	3.6	2.3	1.6	0.8	7:24	3.2	2.9	2.7	1.4	sec7	34.6	15.2	154	080/17.1	Fair	0.50	N		
05/08/04	13:45	101	385,567	71,197	2.0	13:54	2.0	2.3	2.6	0.3	14:01	1.8	2.4	2.6	0.5	sec7	33.9	16.0	191	094/15.9	Fair	1.50	N		
05/08/04	15:33	102	385,567	71,197	1.5	15:40	1.5	2.3	1.8	0.8	15:54	1.4	1.9	1.9	0.4	sec7	39.0	18.5	148	092/17.1	Few Clouds	0.65	N	1517 Coast Guard cutter passes dredge	
05/08/04	17:42	103	385,592	71,181	2.7	17:50	4.2	2.4	1.4	-0.3	18:06	6.2	8.3	5.7	5.6	sec7	38.4	15.3	154	085/18.1	Few Clouds	-0.29	Y	1841 Cruise ship departs Dredge shut down due to edge compliance	
05/08/04	20:13	104	385,555	71,243	2.4	20:19	2.1	3.1	4.3	0.4	20:25	1.7	2.7	3.1	0.1	sec7	30.8	15.1	226	087/18.1	Mostly Cloudy	-0.28	N		
05/08/04	22:28	105	385,519	71,294	3.5	22:34	6.9	4.2	3.8	0.8	22:43	4.1	5.5	3.1	1.9	sec7	32.5	16.6	295	082/19.0	Few Clouds	0.27	N		
05/09/04	01:34	201	385,757	71,053	5.4	01:39	5.2	5.4	4.9	0.0	1:57	4.5	3.8	1.7	-1.7	sec7	35.4	15.1	145	094/18.1	Fair	0.81	N		
05/09/04	03:21	202	385,728	71,089	3.4	03:21	4.8	6.0	5.1	0.6	3:34	4.9	5.0	5.3	-0.4	sec7	31.5	14.1	276	111/17.1	Fair	0.81	N		
05/09/04	05:12	203	385,774	71,059	4.0	05:17	4.0	4.7	4.3	1.1	5:25	4.4	6.1	4.3	2.5	sec7	32.0	14.6	184	105/15.9	Fair	0.56	Y	Dredge shut down due to edge compliance	
05/09/04	06:14	203	385,774	71,059	4.2	06:20	2.9	2.9	4.1	-1.3	6:27	3.8	3.3	3.9	-0.9	sec7	32.5	14.5	184	102/15.0	Fair	0.54	N		
05/09/04	07:19	204	385,774	71,051	3.7	07:25	3.8	3.1	2.9	-0.8	7:37	3.9	3.5	4.8	-0.2	sec7	35.0	14.2	156	117/14.0	Few Clouds	0.65	N		
05/09/04	09:10	205	385,724	71,145	3.7	09:15	2.7	1.9	2.8	-1.8	9:22	2.4	2.2	2.4	-1.5	sec7	32.8	14.7	186	100/13.0	Mostly Cloudy	1.16	N		
05/09/04	11:05	206	385,714	71,122	2.0	11:10	3.6	4.4	3.5	2.4	11:20	2.5	2.5	3.0	0.5	sec7	32.4	15.7	307	103/15.0	Fair	1.75	N	1030 Dredge moved to allow cruise ship to pass	
05/09/04	13:50	101	385,774	71,045	2.0	13:56	2.5	1.5	1.9	-0.5	14:10	2.0	1.5	1.2	-0.8	sec7	32.2	16.1	302	086/19.1	Fair	1.92	N		
05/09/04	16:16	102	385,757	71,060	1.7	16:22	2.3	6.5	2.3	4.8	16:30	1.8	1.9	2.9	0.2	sec7	33.4	15.9	182	087/19.1	Few Clouds	0.91	N		
05/09/04	18:49	103	385,736	71,112	2.5	18:55	2.7	3.1	2.2	0.6	19:04	8.3	4.9	6.9	2.3	sec7	32.9	17.7	170	096/18.1	Fair	-0.07	Y		
05/09/04	21:09	104	385,726	71,121	3.9	21:13	3.4	3.2	3.1	-0.7	21:20	1.9	3.6	3.7	-0.2	sec7	30.0	15.9	277	092/20.0	Few Clouds	-0.14	N	2111 Dredge Moved due to ship in channel	
05/10/04	01:26	201	385,636	71,233	8.7	01:31	6.6	8.3	6.5	-0.4	1:40	5.5	8.5	7.4	-0.2	sec7	32.5	13.9	300	096/13.0	Fair	0.71	N		
05/10/04	03:05	202	385,652	71,209	6.3	03:11	6.0	7.5	5.9	1.2	3:25	5.7	7.9	3.3	1.6	sec7	35.5	15.6	312	111/13.0	Fair	0.86	N		
05/10/04	05:02	203	385,607	71,266	6.4	05:08	7.7	12.6	6.5	6.2	5:15	4.4	4.3	5.0	-2.1	sec7	32.5	14.4	195	119/9.9	Few Clouds	0.68	N		
05/10/04	07:00	204	385,576	71,343	3.4	07:05	4.6	8.7	4.2	5.3	7:22	8.8	8.7	5.6	5.3	sec7	35.8	14.8	158	118/13.0	Fair	0.51	Y		
05/10/04	07:53	204	385,576	71,343	4.4	07:58	5.9	6.5	5.8	2.1	8:16	5.2	3.4	7.3	-1.0	sec7	36.5	13.4	132	116/13.0	Few Clouds	0.55	N		
05/10/04	09:21	205	385,496	72,149	3.8	09:26	3.3	3.8	3.4	0.0	9:38	5.1	4.0	5.3	0.4	sec7	37.7	14.5	137	112/14.0	Few Clouds	0.87	N		
05/10/04	11:02	206	385,520	71,423	3.2	11:08	3.5	3.4	3.7	0.2	11:16	2.8	3.0	2.1	-0.2	sec7	36.0	15.3	169	103/15.0	Fair	1.27	N		
05/10/04	13:37	101	385,484	71,445	2.2	13:43	5.2	3.4	1.8	1.2	13:54	2.0	1.2	1.1	-1.0	sec7	35.2	16.2	303	106/15.9	Fair	1.78	N		
05/10/04	15:29	102	385,516	71,494	1.9	15:34	1.8	1.9	2.6	0.0	15:43	2.1	0.7	0.8	-1.2	sec7	31.2	14.2	295	096/14.0	Fair	1.64	N		
05/10/04	18:38	103	385,516	71,494	1.4	18:44	1.6	1.7	1.5	0.3	18:57	0.7	0.7	1.3	-0.7	sec7	36.1	15.6	148	084/13.0	Mostly Cloudy	0.54	N		
05/10/04	20:54	104	385,516	71,494	3.7	21:01	3.8	5.0	2.9	1.4	21:14	2.3	3.0	3.6	-0.7	sec7	37.8	16.8	153	098/14.0	Fair	0.00	N		
05/10/04	23:02	105	385,460	71,495	3.0	23:08	2.3	13.2	2.5	10.3	23:14	1.8	1.0	1.0	-1.9	sec7	29.8	15.3	274	097/17.1	Fair	0.30	N		
05/11/04	01:28	201	385,327	71,683	1.8	01:32	2.1	1.8	1.4	0.0	1:41	3.3	1.9	2.7	0.4	sec7	35.0	12.0	344	110/15.0	Few Clouds	0.78	N		
05/11/04	03:17	202	385,840	71,071	2.5	03:26	1.6	2.1	3.5	-0.3	3:34	1.6	1.9	3.2	-0.8	sec7	34.3	14.2	357	116/14.0	Few Clouds	0.96	N		
05/11/04	05:10	203	385,478	72,418	5.8	05:17	1.2	5.4	3.4	-0.2	5:24	0.7	1.8	3.4	-3.9	sec7	36.9	16.0	358	112/15.0	Few Clouds	1.02	N	0521 dredge moved to allow cruise ship to pass	
05/11/04	07:51	204	385,777	71,140	1.8	07:56	2.1	3.7	5.8	2.1	8:04	2.9	2.4	4.7	0.8	sec7	32.4	16.4	175	106/17.1	Few Clouds	0.61	N	0635-0648 2 cruise ships passing through site	
05/11/04	08:46	205	385,777	71,068	2.3	08:51	1.7	2.4	2.2	0.1	9:04	2.5	3.3	4.2	1.0	sec7	35.3	14.6	154	116/17.1	Mostly Cloudy	0.60	N		
05/11/04	10:31	206	385,830	71,073	2.6	10:35	2.4	3.3	2.6	0.6	10:47	4.7	2.6	4.0	-0.1	sec7	35.9	14.1	149	109/17.1	Fair	0.74	N		
05/11/04	17:21	101	385,737	71,195	2.5	17:26	2.5	5.4	4.8	2.9	17:35	3.3	4.7	2.5	2.2	sec7	34.1	17.1	299	103/19.0	Fair	1.30	Y		
05/11/04	19:46	102	385,709	71,212	2.0	19:51	2.8	3.4	3.0	1.5	20:03	3.9	4.6	3.4	2.7	sec7	33.4	17.3	170	102/21.0	Fair	0.56	Y		
05/12/04									0.0						0.0									Dredge in dock for repairs, No monitoring performed	

May 16 - May 12
 (K'd 5/21/04)