

McGlynn Laboratories, Inc. Report of Analytical Results

For: Bayou Point, Lynn Haven, FL

c/o Ms. Bethany Womack Garlick Environmental Associates, Inc. 1517 Frankford Avenue Panama City, FL 32405

From: McGlynn Laboratories Inc

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Sean E. My

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Sampled by: McGlynn Laboratories Inc

Report Date: revised Tuesday, June 27, 2006

Results contained within this report meet all NELAP requirements for parameters for which NELAP accreditation is required or available. Any deviations from NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval from McGlynn Laboratories Inc or Garlic-Pandullo LLC.

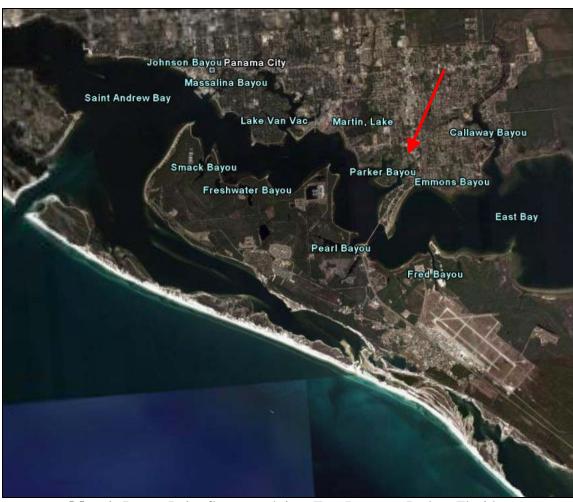
Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676 FDEP CompQAPP, #970131

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Map 1: Bayou Point flows south into East Bay near Parker, Florida.

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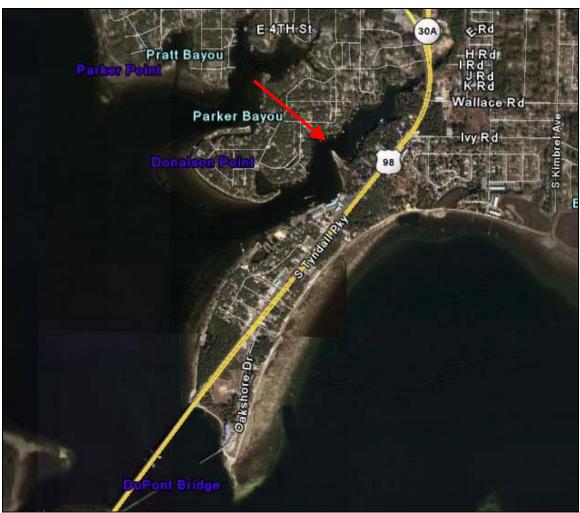
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Map 2: Bayou Point, Parker, Florida.

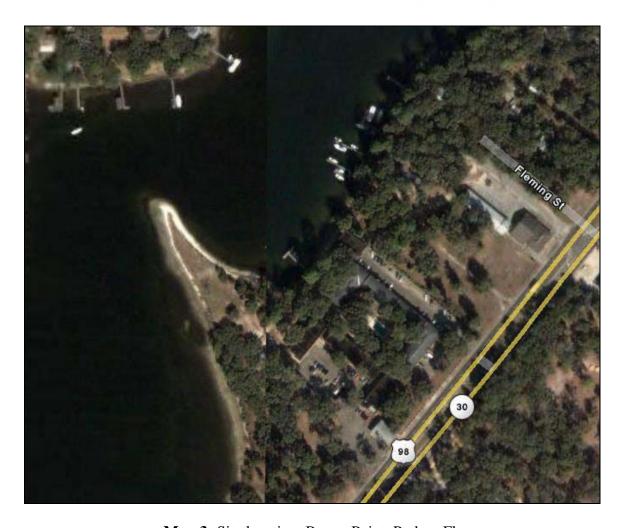
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Map 3: Site location, Bayou Point, Parker, Fl.

Lab Director:_

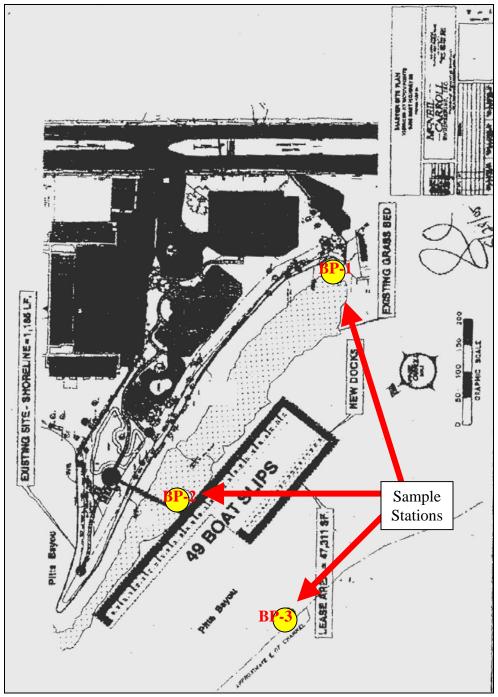
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Map 4: Locations of sample Stations, BP-1, BP-2 and BP-3.

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Figure 1: Bayou Point, view northwest from shore

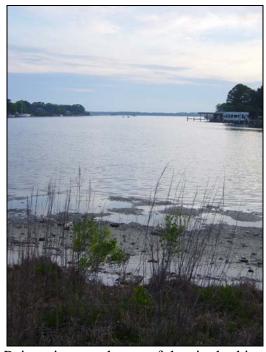


Figure 2: Bayou Point, view southwest of the site looking toward East Bay.

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Figure 3: Bayou Point, view northeast, towards the head of the bayou.



Figure 4: Bayou Point, view south showing nearby boat yards and the site of the proposed dock.

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Diel Oxygen

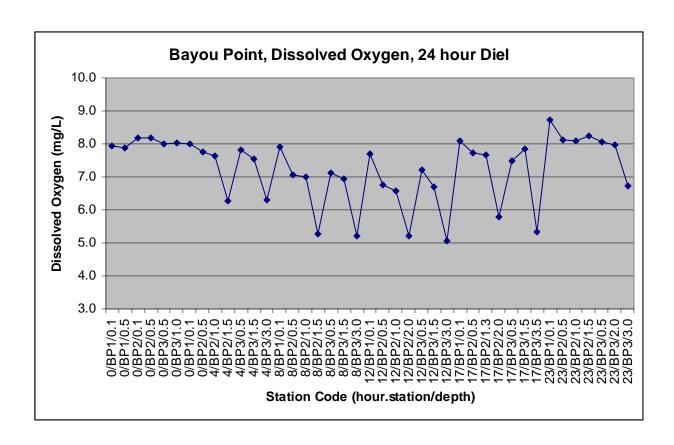


Figure 5: Summary Graph of the seven discrete samplings at all three stations, surface, mid-water and bottom for dissolved oxygen. Stations were sampled at approximate 4 hour intervals for 24 hours. The sample location, arranged chronologically is displayed on the y-axis. The stations code is as follows hour of sampling (0 - 24), station name and depth in meters. The dissolved oxygen is displayed on the y-axis in mg/L.

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III waters (predominantly marine), dissolved oxygen concentrations must not average below 5.0 mg/L in a 24 hour period and shall never be less than 4.0 mg/L. *These analytical results meet these requirements*.

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Chart 1: Physical Chemical Data, including specific conductivity, for hours 0, 4 and 8.

Hour	Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
0	Reading 1	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
	BP-1	03/29/06	18:48	0.5	19.22	8.40	41704	26.79	7.93	101.60	0.10
					19.22	8.41	41704	26.78	7.88	101.60	0.50
	BP-2	03/29/06	18:48	0.8	18.66	8.41	40847	26.17	8.17	103.90	0.10
					18.65	8.42	40879	26.17	8.18	104.10	0.50
	BP-3	03/29/06	18:48	1.3	18.70	8.42	41783	26.84	8.00	102.20	0.50
					18.72	8.43	41767	26.85	8.03	102.40	1.00
Hour	Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
4	Reading 2	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
	nn i	00/00/04	22.42			0.05	44.00	27.12	0.04		0.10
	BP-1	03/29/06	23:12	0.4	19.11	8.35	41179	25.13	8.01	103.47	0.10
	BP-2	03/29/06	23:12	1.9	19.43	8.30	40516	24.66	7.75	100.57	0.50
	DP-Z	03/29/06	25:12	1.9	19.43	8.31	41397	25.28	7.75	99.45	1.00
					18.97	8.30	48512	30.26	6.27	84.04	1.50
					10.77	0.50	40312	30.20	0.27	04.04	1.50
	BP-3	03/29/06	23:12	3.3	19.96	8.30	40534	24.67	7.81	101.24	0.50
					19.27	8.31	41961	25.67	7.55	98.33	1.50
					18.90	8.32	48651	30.36	6.31	84.48	3.00
			•	•	•	•					•
Hour	Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
8	Reading 3	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
	BP-1	03/30/06	3:21	0.4	19.01	8.27	41361	25.25	7.91	102.35	0.10
	BP-2	03/30/06	3:21	2.0	18.97	8.27	40912	24.94	7.05	92.75	0.50
					19.11	8.27	41632	25.44	7.01	92.30	1.00
					19.32	8.27	48314	30.12	5.27	72.87	1.50
	BP-3	03/30/06	3:21	3.5	19.71	8.31	40539	24.68	7.11	93.42	0.50
					19.21	8.30	41636	25.45	6.94	91.52	1.50
					18.91	8.30	48212	30.05	5.21	72.20	3.00

Date: 3/29/06

Water Depth: FB-1, 0.5 meters; FB-2, 1.0 meters, FB-3, 1.5 meters

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Wind Direction: north, 5 - 10 knots Sea State: calm, this is a sheltered area

Cloud Coverage: 5%

Lab Director:_

Report Date: <u>06/27/06</u> FDoH #E81676

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Chart 1, continued: Physical Chemical Data, including specific conductivity, for hours 12, 17 and 23.

Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
Reading 4	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
BP-1	03/30/06	7:11	0.4	18.79	8.30	41219	25.15	7.71	100.12	0.1
BP-2	03/30/06	7:11	2.2	18.91	8.30	40619	24.73	6.75	89.40	0.50
				19.21	8.30	40751	24.83	6.57	87.39	1.20
				18.80	8.32	48612	30.33	5.21	72.20	2.00
BP-3	03/30/06	7:11	3.4	19.87	8.30	40719	24.80	7.21	94.54	0.50
				19.11	8.27	41912	25.64	6.71	88.95	1.50
				18.81	8.31	48911	30.54	5.07	70.63	3.00

Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
Reading 5	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
BP-1	03/30/06	12:25	0.4	20.31	8.36	41006	26.25	8.08	105.70	0.10
BP-2	03/30/06	12:25	2.4	20.19	8.34	41166	26.42	7.74	101.70	0.50
				19.08	8.35	42077	27.01	7.68	99.70	1.30
				18.67	8.20	48563	31.76	5.79	76.10	2.00
BP-3	03/30/06	12:25	3.7	19.22	8.31	40704	26.09	7.50	97.10	0.50
				18.71	8.34	41328	26.50	7.86	101.40	1.50
				18.60	8.24	48035	32.04	5.33	71.00	3.50

Station	Date	Time	Station Depth	Temp	pН	SpCond	Salin	DO	DO	Reading Depth
Reading 6	MMDDYY	HHMMSS	meters	degC	units	uS/cm	ppt	mg/l	%Sat	meters
BP-1	03/30/06	16:25	0.4	23.13	8.41	38350	24.55	8.74	118.7	0.10
BP-2	03/30/06	16:25	1.6	19.69	8.30	40704	26.07	8.13	102.9	0.50
				19.66	8.30	40696	26.07	8.10	102.9	1.00
				19.17	8.30	42612	27.48	8.25	104.0	1.50
BP-3	03/30/06	16:25	3.3	20.04	8.27	40835	26.17	8.06	103.2	0.50
				19.42	8.27	41736	26.66	7.96	101.0	2.00
				18.82	8.23	48688	31.90	6.72	87.0	3.00

Date: 3/30/06

Water Depth: FB-1, 0.5 meters; FB-2, 1.0 meters, FB-3, 1.5 meters

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Wind Direction: north, 5 - 10 knots Sea State: calm, this is a sheltered area

Cloud Coverage: 5%

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry

Arsenic (EPA 200.7)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP-1 Arsenic (EPA 200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.020	< 0.020	< 0.020
MDL	0.02	0.04	0.04
PQL	0.08	0.016	0.016
Method Blank	< 0.020	< 0.040	< 0.040
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-2 Arsenic (EPA 200.7)	Replicate 1 1 ft above bottom mg/L	Replicate 2 1 ft above bottom mg/L	Replicate 3 1 ft above bottom mg/L
Sample Results	<0.020	< 0.020	< 0.020
MDL	0.02	0.04	0.04
PQL	0.08	0.016	0.016
Method Blank	< 0.020	< 0.040	< 0.040
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-3 Arsenic (EPA 200.7)	Replicate 1 1 ft above bottom mg/L	Replicate 2 1 ft above bottom mg/L	Replicate 3 1 ft above bottom mg/L
Sample Results	<0.020	<0.020	<0.020
MDL	0.02	0.04	0.04
PQL	0.08	0.016	0.016
Method Blank	< 0.020	< 0.040	< 0.040
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Analysis run at Summit Environmental Technologies Inc, DoH# E87688

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Method 200.7, MDL (0.250-0.500), PQL (0.500-1.000)

Table 1500-4, SLERP Procedures Manual (2/26/04)

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), Arsenic concentrations must be below 0.050 mg/L. *These analytical results meet these requirements*.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry

Cadmium (200.7)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP-1	Replicate 1	Replicate 2	Replicate 3
Cadmium (200.7)	1 ft above bottom	1 ft above bottom	1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.005	< 0.005	< 0.005
MDL	0.005	0.005	0.005
PQL	0.02	0.02	0.02
Method Blank	< 0.005	< 0.005	< 0.005
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-2 Cadmium (200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.005	< 0.005	<0.005
MDL	0.005	0.005	0.005
PQL	0.02	0.02	0.02
Method Blank	< 0.005	< 0.005	< 0.005
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-3 Cadmium (200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.005	< 0.005	< 0.005
MDL	0.005	0.005	0.005
PQL	0.02	0.02	0.02
Method Blank	< 0.005	< 0.005	< 0.005
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Analysis run at Summit Environmental Technologies Inc, DoH# E87688

Sean E. My

Method 200.7, MDL (0.015-0.030, PQL (0.050-0.100)

Table 1500-4, SLERP Procedures Manual (2/26/04)

* According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), Cadmium concentrations must be below 0.0093 mg/L. *These analytical results meet these requirements*.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry

Chromium (EPA 200.7)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP-1 Chromium (EPA 200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.020	< 0.020	< 0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-2 Chromium (EPA 200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.020	< 0.020	<0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-3 Chromium (EPA 200.7)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	<0.020	<0.020	<0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Analysis run at Summit Environmental Technologies Inc, DoH# E87688

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Method 200.7, MDL (0.050-0.100), PQL (0.150-0.300)

Table 1500-4, SLERP Procedures Manual (2/26/04)

* According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), Chromium concentrations must be below 0.050 mg/L. *These analytical results meet these requirements*.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water
Quality
Chemistry
Copper (200.7), MIBK ext.

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP-1 Copper (200.7), MIBK ext.	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
•	mg/L	mg/L	mg/L
Sample Results	< 0.020	< 0.020	<0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-2 Copper (200.7), MIBK ext.	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.020	< 0.020	<0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Sample Id. BP-3 Copper (200.7), MIBK ext.	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.020	<0.020	<0.020
MDL	0.02	0.02	0.02
PQL	0.08	0.08	0.08
Method Blank	< 0.020	< 0.020	< 0.020
Sample Date	03/06/06	03/06/06	03/06/06
Analysis Date	03/13/06	03/13/06	03/13/06

Analysis run at Summit Environmental Technologies Inc, DoH# E87688

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Method 200.7, MDL (0.030-0.060), PQL (0.125-0.250)

Table 1500-4, SLERP Procedures Manual (2/26/04)

* According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), Copper concentrations must be below 0.0037 mg/L. These samples were MIBK extracted and fortified at 2.5 times the laboratory PQL. Copper concentrations were found to be below 0.0037 mg/L. These analytical results meet the regulatory requirements.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry Zinc (EPA 289.1)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIFB0306



Sample Id. BP-1 Zinc (EPA 289.1)	Replicate 1 1 ft above bottom mg/L	Replicate 2 1 ft above bottom mg/L	Replicate 3 1 ft above bottom mg/L
Sample Results	0.02	0.023	< 0.01
MDL	0.01	0.01	0.01
PQL	0.040	0.040	0.040
Method Blank	< 0.01	< 0.01	< 0.01
Accuracy ((%Rec)	104.2%	104.2%	104.2%
Precision (%RFD)	9.6%	9.6%	9.6%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	04/04/06	04/04/06	04/04/06
Analysis Date	04/04/06	04/04/06	04/04/06

Sample Id. BP-2	Replicate 1	Replicate 2	Replicate 3
Zinc (EPA 289.1)	1 ft above bottom	1 ft above bottom	1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	0.011	0.016	< 0.01
MDL	0.01	0.01	0.01
PQL	0.040	0.040	0.040
Method Blank	< 0.01	< 0.01	< 0.01
Accuracy ((%Rec)	104.2%	104.2%	104.2%
Precision (%RFD)	9.6%	9.6%	9.6%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	04/04/06	04/04/06	04/04/06
Analysis Date	04/04/06	04/04/06	04/04/06

Sample Id. BP-3 Zinc (EPA 289.1)	Replicate 1 1 ft above bottom	Replicate 2 1 ft above bottom	Replicate 3 1 ft above bottom
	mg/L	mg/L	mg/L
Sample Results	< 0.01	< 0.01	< 0.01
MDL	0.01	0.01	0.01
PQL	0.040	0.040	0.040
Method Blank	< 0.01	< 0.01	< 0.01
Accuracy ((%Rec)	104.2%	104.2%	104.2%
Precision (%RFD)	9.6%	9.6%	9.6%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	04/04/06	04/04/06	04/04/06
Analysis Date	04/04/06	04/04/06	04/04/06

Analysis run at MLI, DoH# E81676

Method 289.1, MDL (0.025), PQL (0.075)

Table 1500-4, SLERP Procedures Manual (2/26/04)

Sean E. My

* According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), zinc concentrations must be below 0.086 mg/L, annual average. Zinc concentrations must be below 0.086 mg/L. These analytical results meet these requirements.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry

Project ID: Bayou Point, Parker, FL

Oil and Grease (EPA 1664) Data Set ID: RAIBP0306



Sample Id. BP-1 Oil and Grease (EPA 1664)	Replicate 1 1 ft surface	Replicate 1 1 ft surface	Replicate 1 1 ft surface
Sample Results	mg/L < 5.0	mg/L < 5.0	mg/L < 5.0
Sample Results	<5.0	₹5.0	<5.0
MDL	1.25	1.25	1.25
PQL	5.0	5.0	5.0
Method Blank	<1.25	<1.25	<1.25
Accuracy ((%Rec)	82%	82%	82%
Precision (%RFD)	12.0%	12.0%	12.0%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	03/14/06	03/14/06	03/14/06
Analysis Date	03/14/06	03/14/06	03/14/06

Sample Id. BP-2	Replicate 1	Replicate 1	Replicate 1
Oil and Grease (EPA 1664)	1 ft surface	1 ft surface	1 ft surface
	mg/L	mg/L	mg/L
Sample Results	<5.0	<5.0	<5.0
MDL	1.25	1.25	1.25
PQL	5.0	5.0	5.0
Method Blank	<1.25	<1.25	<1.25
Accuracy ((%Rec)	82%	82%	82%
Precision (%RFD)	12.0%	12.0%	12.0%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	03/14/06	03/14/06	03/14/06
Analysis Date	03/14/06	03/14/06	03/14/06

Sample Id. BP-3 Oil and Grease (EPA 1664)	Replicate 1 1 ft surface	Replicate 1 1 ft surface	Replicate 1 1 ft surface
,	mg/L	mg/L	mg/L
Sample Results	<5.0	<5.0	<5.0
MDL	1.25	1.25	1.25
PQL	5.0	5.0	5.0
Method Blank	<1.25	<1.25	<1.25
Accuracy ((%Rec)	82%	82%	82%
Precision (%RFD)	12.0%	12.0%	12.0%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	03/14/06	03/14/06	03/14/06
Analysis Date	03/14/06	03/14/06	03/14/06

Analysis run by USBiosystems, DoH# E86240 Method 1664, any method suitable with a PQL<5

Table 1500-4, SLERP Procedures Manual (2/26/04)

Dean E. My

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III waters (predominantly marine), dissolved or emulsified oils and greases shall not exceed 5.0 mg/L. These analytical results meet these requirements.

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water Quality Chemistry

PAH (EPA 8270)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP1	Replicate 1	Replicate 2	Replicate 2
PAH (EPA 8270)	1 ft below water surface	1 ft below water surface	1 ft below water surface
Sample Results (mg/L)	ug/L	ug/L	ug/L
Acenaphthene	BDL	BDL	BDL
Acenaphthylene	BDL	BDL	BDL
Anthracene	BDL	BDL	BDL
Benzo(a)anthracene	BDL	BDL	BDL
Benzo(a)pyrene	BDL	BDL	BDL
Benzo(b)fluoranthene	BDL	BDL	BDL
Benzo(g,h,i)perylene	BDL	BDL	BDL
Benzo(k)fluoranthene	BDL	BDL	BDL
Chrysene	BDL	BDL	BDL
Dibenzo(a,h)anthracene	BDL	BDL	BDL
Fluoranthene	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL
Indeno (1,2,3-c,d) pyrene	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL
Phenanthrene	BDL	BDL	BDL
Pyrene	BDL	BDL	BDL
MDL	0.03	0.03	0.03
PQL	0.12	0.12	0.12
Method Blank	BDL	BDL	BDL
Accuracy (%Rec)	83%	84%	86%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	03/11/06	03/11/06	03/11/06
Analysis Date	03/17/06	03/17/06	03/17/06

Analysis run at US Biosystems, DoH# E86240 Method 8270, SLERP Procedures Manual

Sean E. My

BDL = Result below detection limit

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), total PAH concentrations must be below 0.031 mg/L, annual average. *These analytical results meet these requirements*.

Lab Director:

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Water
Quality
Chemistry

PAH (EPA 8270)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP2	Replicate 1	Replicate 2	Replicate 2
PAH (EPA 8270)	1 ft below water surface	1 ft below water surface	1 ft below water surface
Sample Results (mg/L)	ug/L	ug/L	ug/L
Acenaphthene	BDL	BDL	BDL
Acenaphthylene	BDL	BDL	BDL
Anthracene	BDL	BDL	BDL
Benzo(a)anthracene	BDL	BDL	BDL
Benzo(a)pyrene	BDL	BDL	BDL
Benzo(b)fluoranthene	BDL	BDL	BDL
Benzo(g,h,i)perylene	BDL	BDL	BDL
Benzo(k)fluoranthene	BDL	BDL	BDL
Chrysene	BDL	BDL	BDL
Dibenzo(a,h)anthracene	BDL	BDL	BDL
Fluoranthene	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL
Indeno (1,2,3-c,d) pyrene	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL
Phenanthrene	BDL	BDL	BDL
Pyrene	BDL	BDL	BDL
MDL	0.03	0.03	0.03
PQL	0.12	0.12	0.12
Method Blank	BDL	BDL	BDL
Accuracy (%Rec)	77%	81%	75%
Sample Date	03/06/06	03/06/06	03/06/06
Prep Date	03/11/06	03/11/06	03/11/06
Analysis Date	03/17/06	03/17/06	03/17/06

Analysis run at US Biosystems, DoH# E86240 Method 8270, SLERP Procedures Manual

BDL = Result below detection limit

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), total PAH concentrations must be below 0.031 mg/L, annual average. *These analytical results meet these requirements*.

Sean E. My

Lab Director:

Report Date: <u>06/27/06</u> FDoH #E81676

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Water
Quality
Chemistry

PAH (EPA 8270)

Project ID: Bayou Point, Parker, FL

Data Set ID: RAIBP0306



Sample Id. BP3	Replicate 1	Replicate 2	Replicate 2		
PAH (EPA 8270)	1 ft below water surface	1 ft below water surface	1 ft below water surface		
Sample Results (mg/L)	ug/L	ug/L	ug/L		
Acenaphthene	BDL	BDL	BDL		
Acenaphthylene	BDL	BDL	BDL		
Anthracene	BDL	BDL	BDL		
Benzo(a)anthracene	BDL	BDL	BDL		
Benzo(a)pyrene	BDL	BDL	BDL		
Benzo(b)fluoranthene	BDL	BDL	BDL		
Benzo(g,h,i)perylene	BDL	BDL	BDL		
Benzo(k)fluoranthene	BDL	BDL	BDL		
Chrysene	BDL	BDL	BDL		
Dibenzo(a,h)anthracene	BDL	BDL	BDL		
Fluoranthene	BDL	BDL	BDL		
Fluorene	BDL	BDL	BDL		
Indeno (1,2,3-c,d) pyrene	BDL	BDL	BDL		
Naphthalene	BDL	BDL	BDL		
Phenanthrene	BDL	BDL	BDL		
Pyrene	BDL	BDL	BDL		
MDL	0.03	0.03	0.03		
PQL	0.12	0.12	0.12		
Method Blank	BDL	BDL	BDL		
Accuracy (%Rec)	78%	70%	72%		
Sample Date	03/06/06	03/06/06	03/06/06		
Prep Date	03/11/06	03/11/06	03/11/06		
Analysis Date	03/17/06	03/17/06	03/17/06		

Analysis run at US Biosystems, DoH# E86240 Method 8270, SLERP Procedures Manual BDL = Result below detection limit

Seen E. My

*According to 62-302.530, Criteria for Surface Water Quality Classifications, for Class III and Class II waters (predominantly marine), total PAH concentrations must be below 0.031 mg/L, annual average. *These analytical results meet these requirements*.

Lab Director:

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	•				1	1604	,	, Tallah						
J		Task: RAI I	Bacterial Tes	ting							•			
		Data Set Id.	.: RAI-Bayou											T Coli
		SET: 1 Field Identif	ication Inforn	Page:1			Time of	Date of	Initial of	Time of	Date	Initial of	Confirm	EPA MI
		rea identii			Depth (Sample	Sample	Sample	Sample	Sample	Sample	Test	mdl=1
	Lab ID#	Station	Collec Date	tion Time		received at Laboratory	Preparation (HH:MM)	Preparation (MMDDYY)	Analyst (initial)	Analysis (HH:MM)	Analysis (MMDDYY)	Analyst (initial)	(+,-)	pql=4 Cts/100ml
1	B1569	BP #1	02/03/06	10:42	S	02/03/06	13:55	02/03/06	SR	19:00	02/04/06	SM	+	437
2	B1574	BP #2	02/04/06	15:31	S	02/04/06	18:47	02/04/06	SM	17:15	02/05/06	SM	+	14
3	B1601	BP #3	02/10/06	11:24	S	02/10/06	14:30	02/10/06	JS	18:20	02/11/06	SM	+	13
4	B1606	BP #4	02/11/06	17:33	S	02/11/06	20:15	02/11/06	RM	22:00	02/12/06	SM	+	507
5	B1625	BP #5	02/17/06	12:03	S	02/17/06	13:50	02/17/06	SR	20:00	02/18/06	SM	+	747
6	B1631	BP #6	02/19/06	12:03	S	02/19/06	14:35	02/19/06	SM	16:40	02/20/06	JS	+	117
7	B1636	BP #7	02/21/06	14:52	S	02/21/06	23:30	02/21/06	SM	23:04	02/22/06	SM	+	573
8	B1643	BP #8	02/23/06	17:56	S	02/23/06	22:13	02/23/06	SM	23:00	02/24/06	SM	+	133
9	B1659	BP #9	03/03/06	11:39	S	03/03/06	16:00	03/03/06	JS	20:30	03/04/06	SM	+	280
10	B1663	BP #10	03/04/06	13:26	S	03/04/06	18:15	03/04/06	RM	21:00	03/05/06	SM	+	67

*Total Coliforms, 62-302.530 (7). Counts shall not exceed a monthly average of 1000, nor exceed 1000 in 20% of the samples, nor exceed 2,400 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 10 samples taken over a 30 day period.

These results meet these criteria satisfactorily.

Lab Director:_

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Ī	ecal C	Task: RAI	Bacterial Tes	sting							l			
1			: RAI-Bayou	Point										F Coli EPA
		Field Identif	ication Inforn		Depth (Time of Sample	Date of Sample	Initial of Sample	Time of Sample	Date Sample	Initial of Sample	Confirm Test	FC mdl=1
_	Lab ID #	Station	Collec Date	tion Time		received at Laboratory	Preparation (HH:MM)	Preparation (MMDDYY)	Analyst (initial)	Analysis (HH:MM)	Analysis (MMDDYY)	Analyst (initial)	(+,-)	pql=4 Cts/100m
1	B1569	BP #1	02/03/06	10:42	S	02/03/06	13:55	02/03/06	SR	19:00	02/04/06	SM	+	77
2	B1574	BP #2	02/04/06	15:31	S	02/04/06	18:47	02/04/06	SM	17:15	02/05/06	SM	+	4
3	B1601	BP #3	02/10/06	11:24	S	02/10/06	14:30	02/10/06	JS	18:20	02/11/06	SM	+	7
4	B1606	BP #4	02/11/06	17:33	S	02/11/06	20:15	02/11/06	RM	22:00	02/12/06	SM	+	27
5	B1625	BP #5	02/17/06	12:03	S	02/17/06	13:50	02/17/06	SR	20:00	02/18/06	SM	+	353
6	B1631	BP #6	02/19/06	12:03	S	02/19/06	14:35	02/19/06	SM	16:40	02/20/06	JS	+	0
7	B1636	BP #7	02/21/06	14:52	S	02/21/06	23:30	02/21/06	SM	23:04	02/22/06	SM	+	253
8	B1643	BP #8	02/23/06	17:56	S	02/23/06	22:13	02/23/06	SM	23:00	02/24/06	SM	+	10
9	B1659	BP #9	03/03/06	11:39	S	03/03/06	16:00	03/03/06	JS	20:30	03/04/06	SM	+	3
10	R1663	BP #10	03/04/06	13:26	S	03/04/06	18-15	03/04/06	RM	21:00	03/05/06	SM	_	7

*Fecal Coliforms, 62-302.530 (6) Counts shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 10 samples taken over a 30 day period.

These results meet these criteria satisfactorily.

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Sampling Plan

Equipment

Paperwork: Data Sheets/COC/Maps Markers: Black Sharpie and Uniball

Bottles: 250ml HDPE; 1 Liter Amber Glass Bottle with a Teflon liner, HDPE centrifuge tubes; 100ml whirlpaks

• All bottles are liquinox washed, acid washed, analyte free water rinsed 3x

• Whirlpaks must always be new with unbroken seals (sterile)

Field Filtration: 50ml HDPE syringe; 0.45u Advantec field filters

Bottom Sampler: Wildco 1130-045 3802 (clear HDPE body with rubber closures)

Secchi

Ice chest (Gott) and Ice

Sample labels

Boat/Motor/Life Jackets/Oars/Anchor

MLI Monterro

Hydrolab Recorder (23260) and Surveyor IV (S0785) with stirrer

- Check the battery: IBV must be greater than 7.0, if not, charge it.
- Initial Calibration: calibrate according to manufacturers instructions
- pH: 2 point calibration pH 4 and 7
- Conductivity: 2 point calibration, 50 and 250 uS

Sean E. My

- Temperature: check temperature at two different temperatures against an NBS traceable thermometer every 6 months
- Dissolved Oxygen: calibrate in 100% humidity chamber and change membrane monthly
- The hydrolab has acceptance criteria built into its software, if any calibrations fail, bring this to the attention of the QA officer before going in the field.

At the Station, Diel Sampling

Physical/Chemical Measurements: (Dissolved oxygen, every 4 hours for 24 hours)

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- Measure: surface, mid-depth and bottom water at each station with the Hydrolab Multiprobe for: conductivity, salinity, temperature, pH, dissolved oxygen and % dissolved oxygen saturation both on the data sheet and digitally. Surface is defined as 1 ft below surface. Mid-depth is the middle of the water column. Bottom is 1 ft above the sediments.
- Record: time, depth, wind direction; wind speed; sea state; % cloud cover

Diel Sampling Summary Chart

Parameter (sampled in triplicate)	Depth			
Diel Samples taken at 4 hour intervals	1 ft below surface, mid and 1 ft above			
through a 24 hour period	bottom			

At the Station, Microbiological Sampling

Surface Water Samples (microbiology):

Bacteria: (1 sample per day for 10 days, at least 24 hours apart, during a 30 day period)

- 1x 100ml whirlpak for bacteria: lower sealed whirlpak to 0.5 meters, break seal at 0.5meters and allow it to fill with whole water, on boat seal whirlpak (label station, depth code, date, whole water for micro)
- Samples will be transported to the laboratory in Tallahassee on ice within the holding time of 6 hours.

At the Station, Water Quality Sampling

SurfaceWater Samples (organics): sample 0.5 meters below the water surface (grab sample).

- 3x 1 liter amber glass bottle with a Teflon liner: fill jug with whole water (label station, depth code, date, whole water Oil and Grease Analysis).
- 3x 1 liter amber glass bottle with a Teflon liner: fill jug with whole water (label station, depth code, date, whole water PAH).

Bottom Water Samples (metals): sample 0.5 meters above bottom sediments.

- 3x 250ml HDPE pre-preserved with 2 ml of nitric acid for <u>metals</u>: fill bottles with whole water.
- Check sample preservation to pH <2 with narrow range pH paper

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• Bottom sampler (Wildco 1130-045 3802, clear HDPE body with rubber closures) 0.5 meters above the sediment water interface; check sample by looking for

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sediment in the sampler to make sure bottom was not disturbed, discard and resample if sediment is observed in the sampler.

• Clean bottom sampler between stations with liquinox/acid wash/3x dI rinse.

Preserve samples within 15 minutes of sample collection Fill out COC Return directly to the lab after sampling

Field Sampling Summary Chart

Parameter	Depth	Container	Preservation
Total Arsenic	1 ft above bottom sediments	9 x 250 ml HDPE	Nitric Acid, pH < 2
Cadmium	1 ft above bottom sediments	9 x 250 ml HDPE	Nitric Acid, pH < 2
Chromium	1 ft above bottom sediments	9 x 250 ml HDPE	Nitric Acid, pH < 2
Copper, MIBK Extraction	1 ft above bottom sediments	9 x 250 ml HDPE	Nitric Acid, pH < 2
Zinc	1 ft above bottom sediments	9 x 250 ml HDPE	Nitric Acid, pH < 2
PAH	1 ft below surface of water	9 x 1L amber glass	Ice, 4 degrees C
Oil an Grease	1 ft below surface of water	9 x 1L amber glass	Ice, 4 degrees C

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