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Breaux Bridge Wetland Assimilation Monitoring Report

March-May 2018

To: Ricky Calis, Mayor
City of Breaux Bridge, Louisiana

Mr. Chris Richard
Domingue & Szabo
400 East Kaliste Saloom Rd. Suite 1100
Lafayette, LA 70508

Prepared by: Robert R. Lane, PhD
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John W. Day, PhD
Jason N. Day
Joel M. Mancuso



Joel Mancuso at the Out site on March 27, 2018.

May 29, 2018

Breaux Bridge Wetland Assimilation Monitoring Report

March-May 2018

Site visits

March 6, 2018: Comite Resources field crew Jason Day and Joel Mancuso traveled to the Breaux Bridge assimilation wetland to measure annual tree diameters. All trees in the Out and Mid sites were measured. Water nutrients were taken at all sites including the Pipe, and brought to A&E Environmental in Baton Rouge for analysis (see data below).

March 27, 2018: Comite Resources field crew Jason Day and Joel Mancuso returned to the Breaux Bridge assimilation wetland to carry out monthly monitoring. Dissolved oxygen, conductivity, temperature, salinity and pH were measured at all sites (see data below). They also collected leaf litter and measured water levels at the Treatment, Mid, Out, and Reference sites. There was very little water at any of the sites.

Discrete water quality data from March 27, 2018.

Site	DO (mg/l)	Cond (mS)	Temp. (°C)	Sal (PSU)	pH
Pipe	4.7	454.8	22.6	0.2	6.7
Tmt	4.3	461.9	22.6	0.2	6.7
Mid	3.3	444.4	21.9	0.2	6.9
Out	1.3	207.4	22.4	0.1	6.8
Ref	2.3	430.0	22.6	0.2	6.7



The Treatment site on March 27, 2018, with very little surface water.



Joel Mancuso at the Out site March 27, 2018.

April 27, 2018: Jason Day and Joel Mancuso returned to the Breaux Bridge assimilation wetland. Leaf litter biomass, water levels, dissolved oxygen, conductivity, temperature, salinity and pH were measured at the Pipe, Treatment and Reference sites (data given below). There was little to no water on the Treatment, Mid & Out sites.

Discrete water quality data from April 27, 2018.

Site	DO (mg/l)	Cond (mS)	Temp. (°C)	Sal (PSU)	pH
Pipe	1.2	487.9	21.4	0.3	6.8
Tmt	3.3	458.3	18.8	0.2	6.8
Mid	3.2	398.6	18.5	0.2	7.1
Out	1.2	199.3	16.9	0.1	6.9
Ref	1.2	361.7	17.2	0.2	7.9



The Reference site on April 27, 2018.

May 17, 2018: Comite Resources biologists Jason Day and Joel Mancuso traveled to the Breaux Bridge assimilation wetland to conduct monthly monitoring. Leaf litter biomass and water levels were collected from each site. They measured water levels at the Treatment, Mid, Out, and Reference sites. They also measured dissolved oxygen, conductivity, temperature, salinity and pH at the Treatment, Mid, Out, Pipe and Reference sites (data given below). Water nutrients were taken at all sites including the Pipe, and brought to A&E Environmental in Baton Rouge for analysis. The data from the lab was unavailable at the time of writing this report, and will be submitted in the next monitoring report.

Discrete water quality data from May 17, 2018.

Site	DO (mg/l)	Cond (mS)	Temp. (°C)	Sal (PSU)	pH
Pipe	1.7	560.2	27.4	0.3	6.6
Tmt	1.0	559.9	25.1	0.3	6.6
Mid	0.9	378.6	25.4	0.2	6.9
Out	1.1	225.4	26.1	0.1	7.4
Ref	0.5	350.1	24.0	0.2	6.8



Jason Day taking water samples at the Out site on May 17, 2018.

Annual Report

Comite Staff wrote and submitted the 2017 Annual report to Randy Cormier on May 17, 2018, who then should have be submitted it to LDEQ.

Lab Results from March 6, 2018



Corporate Address: 1717 Seaboard Drive,
Baton Rouge, LA 70810
Louisiana Division: Baton Rouge, LA (225)769-1930
Alabama Division: Mobile, AL (251) 344-9915
Texas Division: Bryan, TX (800) 364-1930

Certificate of Analyses

TNI# 01978

Date Reported: **3/12/2018**

Comite Resources

AET Work Order/Project #: 1803181

Parameter	Analytical Result	Units	Qual	Date/Time Analyzed	Analyst	Method No
Client ID Breaux Bridge Reference		Date: 03/06/2018 2:00 PM		Lab ID:1803181-001		Matrix: Water
Nitrate	0.32	mg/L		03/07/2018 10:27 PM	MDV	300.0
Nitrite	0.12	mg/L		03/07/2018 10:27 PM	MDV	300.0
Orthophosphate	0.18	mg/L		03/07/2018 10:27 PM	MDV	300.0
Ammonia	< 0.02	mg/L		03/12/2018 10:27 AM	EJF	4500NH3G-
TKN	0.51	mg/L		03/12/2018 1:23 PM	EJF	4500NorgC-
Phosphorus, Total	0.63	mg/L		03/09/2018 11:35 AM	TJW	365.3
TSS	12.4	mg/L		03/07/2018 4:30 PM	AEH	2540D-2011
Client ID Breaux Bridge Treatment		Date: 03/06/2018 3:00 PM		Lab ID:1803181-002		Matrix: Water
Nitrate	0.33	mg/L		03/08/2018 12:39 AM	MDV	300.0
Nitrite	0.30	mg/L		03/08/2018 12:39 AM	MDV	300.0
Orthophosphate	1.47	mg/L		03/08/2018 12:39 AM	MDV	300.0
Ammonia	5.86	mg/L		03/12/2018 10:29 AM	EJF	4500NH3G-
TKN	11.4	mg/L		03/12/2018 1:24 PM	EJF	4500NorgC-
Phosphorus, Total	2.29	mg/L		03/09/2018 11:35 AM	TJW	365.3
TSS	22.4	mg/L		03/07/2018 4:30 PM	AEH	2540D-2011
Client ID Breaux Bridge Mid		Date: 03/06/2018 4:30 PM		Lab ID:1803181-003		Matrix: Water
Nitrate	0.26	mg/L		03/08/2018 1:44 AM	MDV	300.0
Nitrite	0.14	mg/L		03/08/2018 1:44 AM	MDV	300.0
Orthophosphate	0.83	mg/L		03/08/2018 1:44 AM	MDV	300.0
Ammonia	3.22	mg/L		03/12/2018 10:30 AM	EJF	4500NH3G-
TKN	6.76	mg/L		03/12/2018 1:25 PM	EJF	4500NorgC-
Phosphorus, Total	1.38	mg/L		03/09/2018 11:35 AM	TJW	365.3
TSS	32.4	mg/L		03/07/2018 4:30 PM	AEH	2540D-2011

Qualifiers:

B Analyte detected in the associated Method Blank	E Value above quantitation range/Estimated Value
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits	U Samples with CalcVal < MDL

Date Reported: 3/12/2018

Comite Resources

AET Work Order/Project #: 1803181

Parameter	Analytical Result	Units	Qual	Date/Time Analyzed	Analyst	Method No
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Client ID	Breaux Bridge Out	Date:	03/06/2018 1:00 PM	Lab ID:	1803181-004	Matrix:	Water
Nitrate	0.11	mg/L		03/08/2018 2:50 AM	MDV	300.0	
Nitrite	< 0.02	mg/L		03/08/2018 2:50 AM	MDV	300.0	
Orthophosphate	0.03	mg/L		03/08/2018 2:50 AM	MDV	300.0	
Ammonia	0.08	mg/L		03/12/2018 10:31 AM	EJF	4500NH3G-	
TKN	0.25	mg/L		03/12/2018 1:28 PM	EJF	4500NorgC-	
Phosphorus, Total	0.47	mg/L		03/09/2018 11:35 AM	TJW	365.3	
TSS	43.6	mg/L		03/07/2018 4:30 PM	AEH	2540D-2011	

Client ID	Breaux Bridge Pipe	Date:	03/06/2018 2:30 PM	Lab ID:	1803181-005	Matrix:	Water
Nitrate	0.33	mg/L		03/08/2018 3:56 AM	MDV	300.0	
Nitrite	0.34	mg/L		03/08/2018 3:56 AM	MDV	300.0	
Orthophosphate	2.03	mg/L		03/08/2018 3:56 AM	MDV	300.0	
Ammonia	7.59	mg/L		03/12/2018 10:32 AM	EJF	4500NH3G-	
TKN	15.2	mg/L		03/12/2018 1:29 PM	EJF	4500NorgC-	
Phosphorus, Total	2.91	mg/L		03/09/2018 11:35 AM	TJW	365.3	
TSS	16.8	mg/L		03/07/2018 4:30 PM	AEH	2540D-2011	

Analytical & Environmental Testing, Inc.

Date: 12-Mar-18

CLIENT: Comite Resources

Work Order: 1803181

Project: Breaux Bridge Analyses

QC SUMMARY REPORT

Analyte	Result	PQL	SPK Val	%REC	Low Limit%	HighLimit%	Ref Val	%RPD	RPDLimit	Qual
Sample ID LCS-R31131	SampType: LCS	Batch ID: R31131	Units: mg/L	Analysis Date: 3/7/2018 4:30:00 PM	RunNo: 31131	SeqNo: 540892				
TSS	254	4.0	250.0	102	86.5	113.5				
Sample ID LCS1-R31131	SampType: LCS1	Batch ID: R31131	Units: mg/L	Analysis Date: 3/7/2018 4:30:00 PM	RunNo: 31131	SeqNo: 540893				
TSS	60.0	4.0	62.5	96.0	86.5	113.5				
Sample ID LCS	SampType: LCS	Batch ID: R31151	Units: mg/L	Analysis Date: 3/12/2018 10:22:21 AM	RunNo: 31151	SeqNo: 541217				
Ammonia	4.85	0.02	5.00	97.0	79.2	120				
Sample ID LCS	SampType: LCS	Batch ID: R31160	Units: mg/L	Analysis Date: 3/12/2018 1:18:31 PM	RunNo: 31160	SeqNo: 541458				
TKN	21.0	0.16	20.00	105	79.8	122				
Sample ID LCS	SampType: LCS	Batch ID: R31112	Units: mg/L	Analysis Date: 3/7/2018 11:06:00 AM	RunNo: 31112	SeqNo: 540639				
Nitrate	4.88	0.02	5.00	97.6	90	110				
Nitrite	5.21	0.02	5.00	104	90	110				
Orthophosphate	4.83	0.02	5.00	96.6	90	110				
Sample ID LCS-R31144	SampType: LCS	Batch ID: R31144	Units: mg/L	Analysis Date: 3/9/2018 11:35:00 AM	RunNo: 31144	SeqNo: 541104				
Phosphorus, Total	0.53	0.01	0.50	106	90	110				