

December 28, 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**RE: Winter Hydroelectric Project
FERC Project Number P-2064
Flambeau Hydro LLC
Final Report 2015 Water Quality Monitoring Data**

Dear Ms. Bose:

On behalf of Flambeau Hydro LLC, "Flambeau" (Licensee), Renewable World Energies, LLC (RWE) is submitting a copy of the *Final Report 2015 Water Quality Monitoring Data* for the Winter Hydroelectric Project. The Federal Energy Regulatory Commission "FERC" issued a License to Flambeau on August 12, 2005. A revised Water Quality Certification was issued August 19, 2008. This report is submitted as a requirement of that License pursuant to License Article 401 Condition N, Appendix A. 2015 was the ninth year monitoring was conducted since the license was issued, but is the 4th year of submittal by RWE on the behalf of the Licensee.

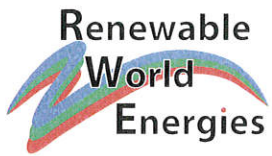
Monitoring was conducted on April 13, July 6, and August 3, 2015. No issues were encountered during the 2015 monitoring season. All data has been entered into the SWIMS Data Base. The draft report was sent to the agencies by letter dated October 1, 2015 for review and comment. No comments have been received as of the date of this letter. The next scheduled monitoring event will be conducted in 2016.

If you have any questions concerning this submittal, please contact Mr. Gary Rast at the Renewable World Energies, LLC offices @ 855-994-9376 Ext 105. He can also be reached by e-mail at grast@rwehydro.com.

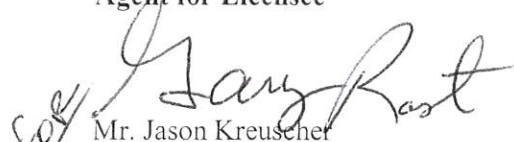
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Norway, MI 49870
Fax: 906-563-9344



Sincerely,
Renewable World Energies, LLC
Agent for Licensee


Mr. Jason Kreuzsener
Vice President, Operations

Attachment: Final Report 2015 Water Quality Monitoring Data – December 28, 2015

Cc: Mr. Paul Strong, USFS
Mr. Dale Higgins, USFS
Ms. Sue Reinecke, USFS
Ms. Cheryl Laatsch, WDNR
Mr. Nick Utrup, USFWS
RWE, Corporate

Final Report

2015 Water Quality Monitoring Data

for the

Winter Hydroelectric Project

FERC Project #2064

Flambeau Hydro, LLC

East Fork of the Chippewa River, Sawyer County, Wisconsin

Respectfully Submitted by:

Renewable World Energies, LLC

100 State Street – P.O. Box 264

Neshkoro, Wisconsin 54960

Final – December 28, 2015

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Summary

2015 marked the ninth year of water quality sampling under the FERC License issued August 12, 2005 Per Article 401, Water Quality Certification Condition N, Appendix A for the Winter Hydroelectric Project – FERC Project # 2064 – Flambeau Hydro, LLC”.

In general, the weather (temperature and rainfall) during the 2015 monitoring season appeared slightly warmer in April, May, June, July, & August, with lower than normal precipitation in the months of April, June, July, and higher than normal precipitation in May and August. **(Refer to 2015 Monthly Temp and Precipitation Table page 6)** No one test result stands out as out of the ordinary. Sampling and testing of the samples was coordinated with the sampling done at the Flambeau Projects (Upper, Lower, Pixley, Crowley). These projects are located on the North Fork of the Flambeau River, Price County, Wisconsin. Protocol, procedures, and sampling design followed that of the Flambeau Projects.

The definition for Ice-Out occurred on the East Fork of the Chippewa sometime during the week beginning March 22, 2015. The Ice-Out sampling event occurred on April 13, 2015. River flow, based on Winter Hydroelectric Project records was approximately 613 cubic feet per second during this time. Sampling occurred between 1:00 p.m. and 1:21 p.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to Northern Lake Service, Inc. in Crandon, WI on April 14, 2015. Northern Lake Service, Inc. issued a laboratory report on April 29, 2015. No unusual levels of Chlorophyll a, True Color, or Total Phosphorus were noted in the laboratory reports.

The July sampling event occurred on July 6, 2015. River flow, based on Winter Hydroelectric Project records was approximately 256 cubic feet per second. Sampling occurred between 2:00 p.m. and 2:18 p.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to Northern Lake Service, Inc. in Crandon, WI on July 7, 2015. Northern Lake Service, Inc. issued a laboratory report on July 31, 2015. No unusual levels of Chlorophyll a, True Color, or Total Phosphorus were noted in the laboratory reports.

The August sampling event occurred on August 3, 2015. River flow, based on Winter Hydroelectric Project records, was approximately 60 cubic feet per second. Sampling occurred between 12:30 p.m. and 12:55 p.m. Samples were taken without incident. No unusual D.O. or Temperature readings were observed. Samples for laboratory analysis were delivered to Northern Lake Service, Inc. in Crandon, WI on August 4, 2015. Northern Lake Service, Inc issued a laboratory report on August 11, 2015. No unusual levels of Chlorophyll a, True Color, or Total Phosphorus were noted in the laboratory reports.

A summary of a comparison between the 2011 thru 2015 **(Refer to 2015 Winter Project Sampling Comparison Table 2011-2015 page 7)** sampling results are as follows:

1. Water Clarity – Decreased I Out, Ave July, & S Decreased Aug
2. Chlorophyll a – Increased I Out, Aug, & S Decreased July
3. Color – Decreased I Out, July, & Increased Aug

4. Total Phosphorus – Decreased I Out, July, & Aug
5. Overall D.O. – Ave/S Decreased I Out, Increased July, & Decreased Aug
6. Water Temperatures – Ave/S Increased I Out, & S Decreased July, Aug

Correspondence from the agencies during 2010 indicated they would prefer that notifications of incidents be by e-mail only and that telephone contacts are not needed. All other correspondence can be found on page 12, **Appendix D**. The next Water Quality Monitoring at the Winter Hydroelectric Project is scheduled for 2016 beginning with the Ice-Out sampling event.

2015 Tabular Data

Ice-Out (April 13), July 6, August 3

Winter Hydroelectric Project - FERC Project # 2064 2015 Water Quality Sampling Data

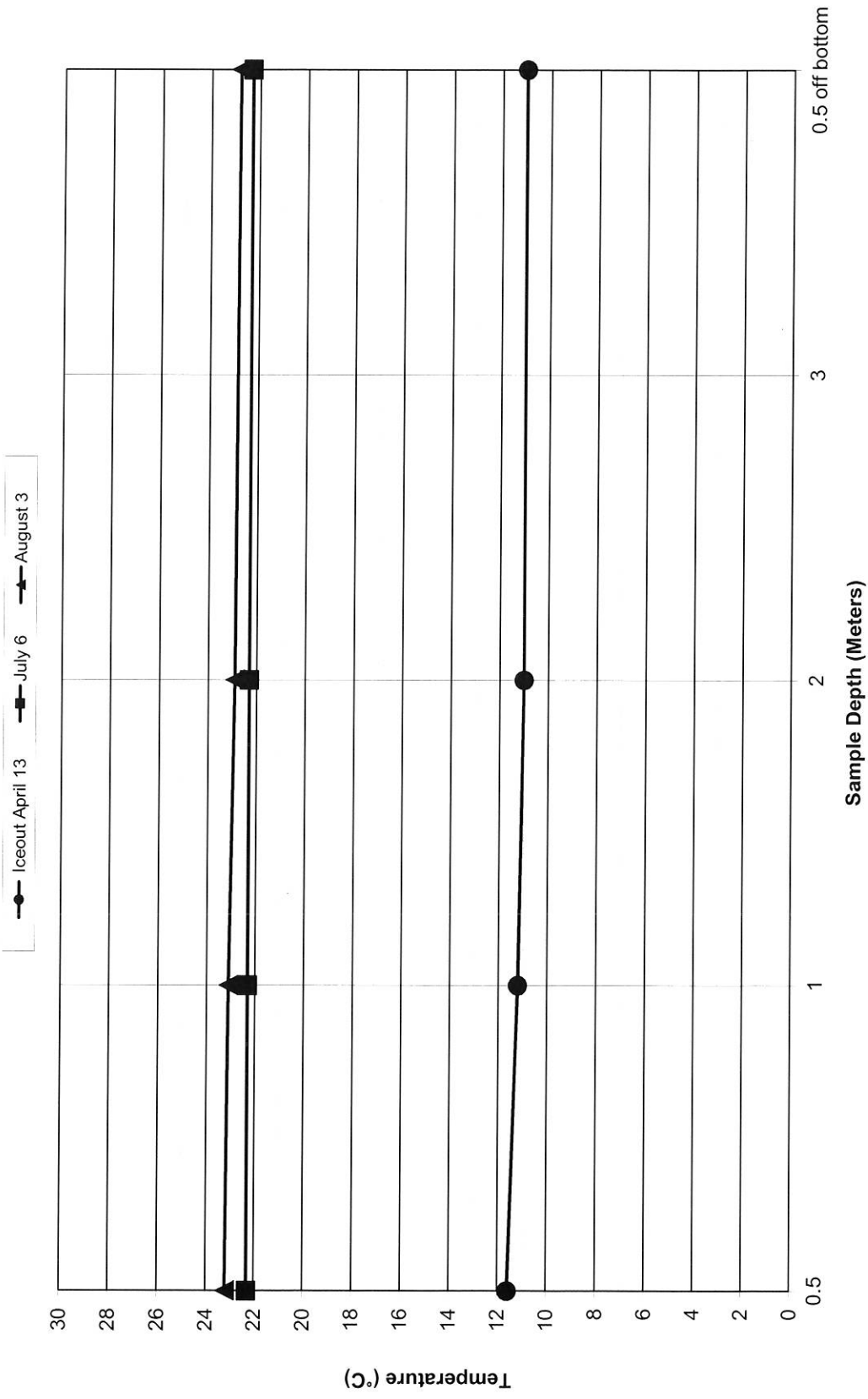
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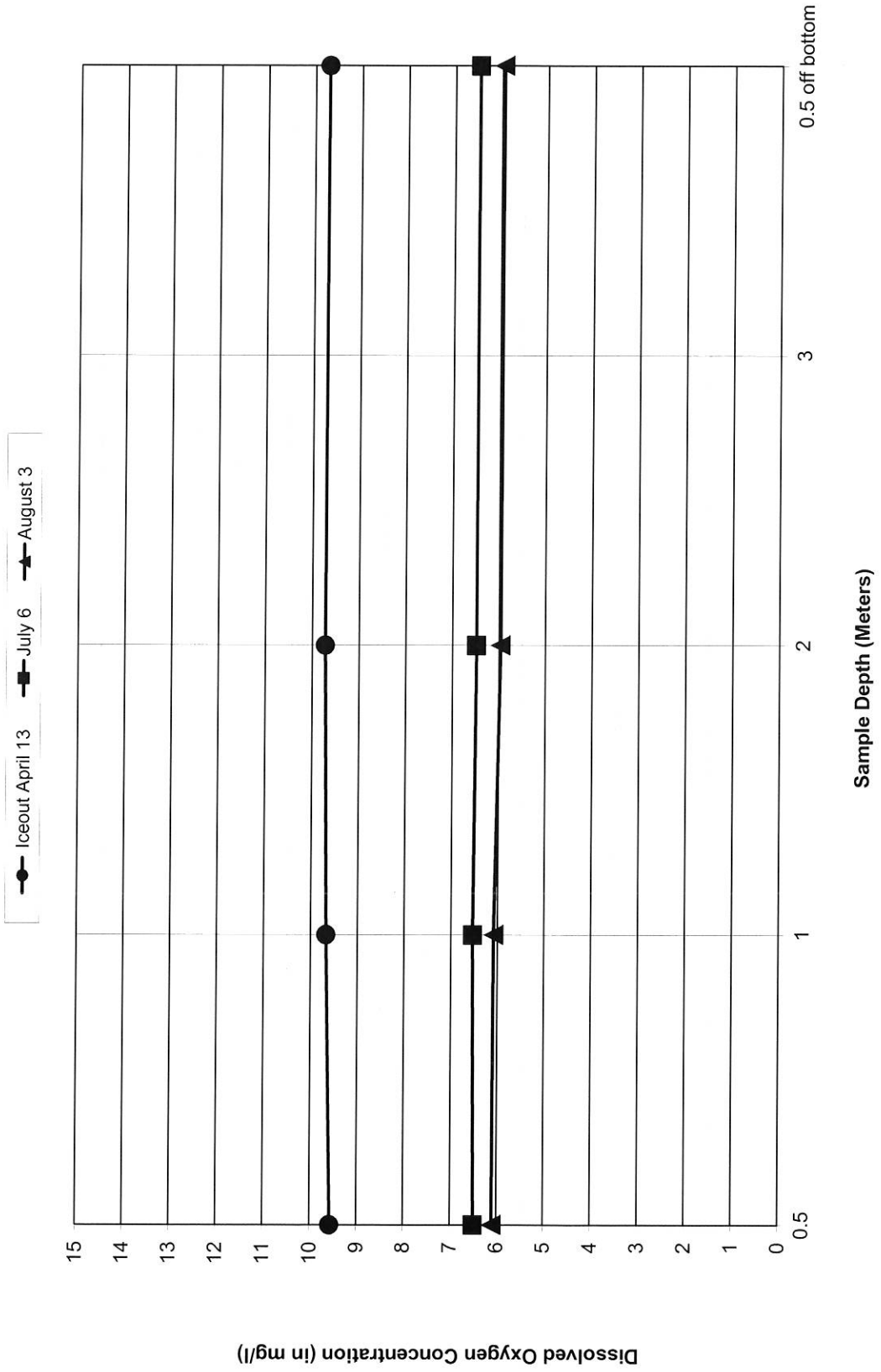
2015 Graphed Data

Temperature and Dissolved Oxygen

Winter Impoundment - FERC # 2064 2015 Temperature Samples



Winter Impoundment - FERC # 2064 2015 Dissolved Oxygen Samples



Monthly
Temperature and Precipitation
Table

2015 Water Year Monthly Temperature and Precipitation for Winter, Wisconsin

Month	Highest Temp.	Lowest Temp.	Average Temp.	Departure From Normal	Heating Degree Days	Normal Degree Days	Total Precip.	Total Snowfall	Normal Precip.	% of Normal Precipitation
October-14	69.0	23.0	44.8	1.6	622	678	1.80	0.10	2.85	63%
November-14	51.0	-9.0	21.8	-7.0	1289	1080	0.98	16.40	2.09	47%
December-14	43.0	-10.0	21.5	6.7	1341	1556	1.26	8.60	1.21	104%
January-15	12.7	-18.0	40.0	2.5	1616	1699	0.46	6.60	0.96	48%
February-15	27.0	-19.0	5.2	-9.9	1667	1399	0.38	8.20	0.81	47%
March-15	64.0	-14.0	30.6	4.7	1059	1210	0.79	8.10	1.49	53%
April-15	76.0	22.0	42.2	2.6	675	762	1.03	1.20	2.43	42%
May-15	83.0	32.0	51.7	0.3	409	426	3.73	T	3.23	115%
June-15	84.0	36.0	61.4	1.3	121	179	3.64	T	4.23	86%
July-15	89.0	48.0	69.2	3.4	15	63	3.01	0.00	3.85	78%
August-15	93.0	42.0	65.3	1.0	81	86	4.09	0.00	3.70	111%
September-15	85.0	34.0	61.5	5.9	149	298	6.81	0.00	4.11	166%

Source: NOAA/Duluth,
MN

**2015
Winter
Sampling Comparison Table
2011—2015**

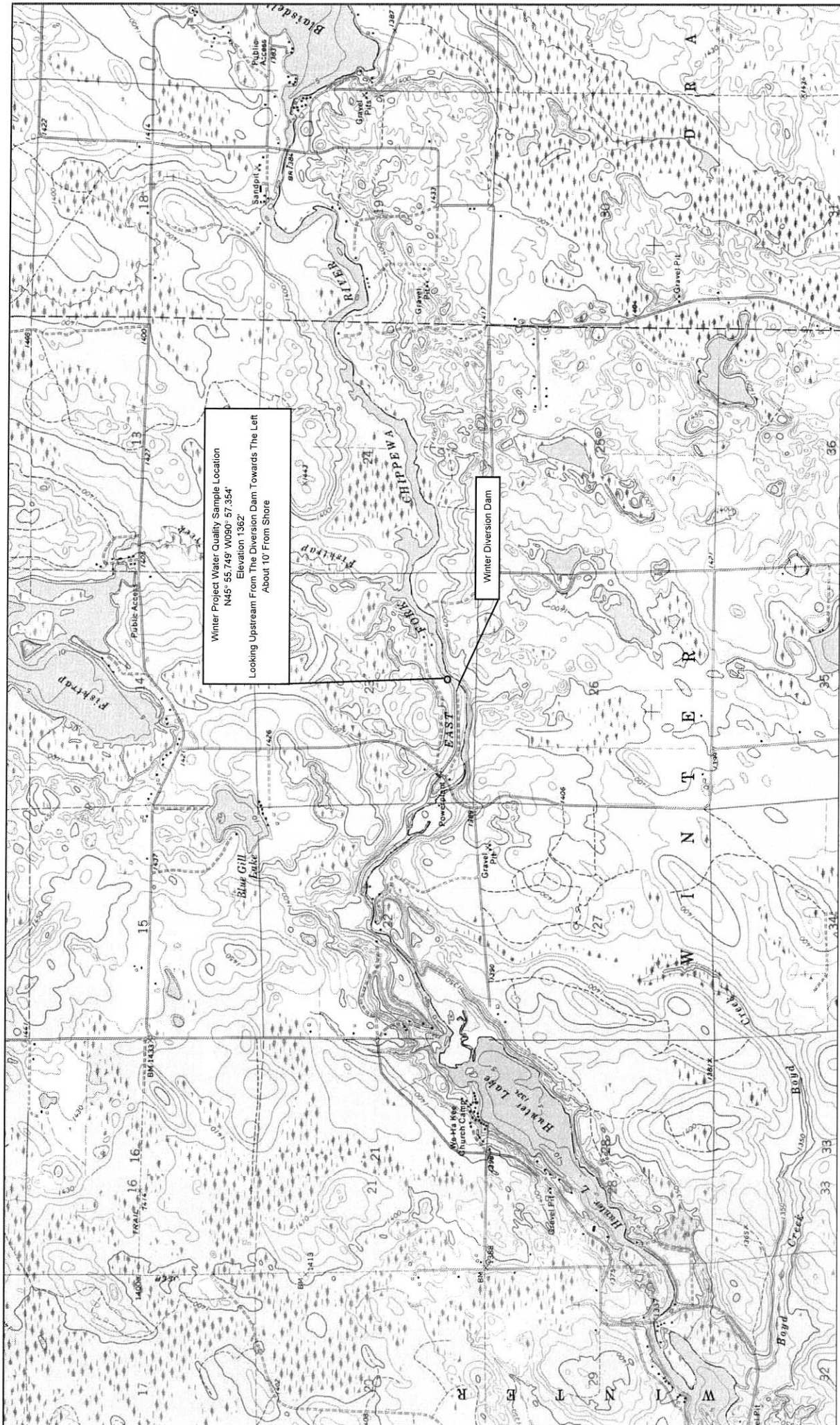
Winter

Project Sampling Comparison Table

2011 Thru Current Year

Year	Month	Secchi Depth (m)	Chlorophyll a ug/l	Color (True) C.P.U. Units	Total Phosphorus Below Surface mg/l	Low D.O. mg/l	High D.O. mg/l	Low Water Temp. °C	High Water Temp. °C
2011	April	1.00	0.00	150.00	0.028	11.85	12.10	8.10	8.60
2012	April	0.50	2.30	250.00	0.048	10.55	10.73	9.90	10.60
2013	May	1.20	1.90	250.00	0.036	9.34	9.61	6.90	7.80
2014	June	1.50	2.30	300.00	0.055	6.98	7.07	19.90	20.10
2015	April	0.80	3.70	180.00	0.036	9.57	9.72	10.00	11.60
Minimum	April/June	0.50	0.00	150.00	0.028	6.98	7.07	6.90	7.80
Maximum	April/June	1.50	3.70	300.00	0.055	11.85	12.10	19.90	20.10
Average	April/June	1.00	2.04	226.00	0.041	9.66	9.85	10.96	11.74
2011	July	0.80	4.30	250.00	0.055	5.84	6.44	26.10	27.70
2012	July	0.60	1.80	400.00	0.082	4.67	4.75	25.50	25.90
2013	July	0.80	1.90	400.00	0.064	5.05	5.21	25.20	26.10
2014	July	0.60	1.50	250.00	0.050	6.31	6.44	19.00	19.40
2015	July	0.70	1.80	25.00	0.044	6.47	6.53	22.30	22.30
Minimum	July	0.60	1.50	25.00	0.044	4.67	4.75	19.00	19.40
Maximum	July	0.80	4.30	400.00	0.082	6.47	6.53	26.10	27.70
Average	July	0.70	2.26	265.00	0.059	5.67	5.87	23.62	24.28
2011	August	0.70	3.70	250.00	0.055	7.25	7.27	24.70	25.10
2012	August	1.10	3.00	200.00	0.047	7.27	7.55	23.40	25.10
2013	August	0.90	2.00	200.00	0.120	5.49	6.10	20.00	20.10
2014	August	0.90	1.80	150.00	0.040	6.54	6.68	23.70	23.80
2015	August	0.70	3.30	300.00	0.051	5.95	6.10	22.80	23.20
Minimum	August	0.70	1.80	150.00	0.040	5.49	6.10	20.00	20.10
Maximum	August	1.10	3.70	300.00	0.120	7.27	7.55	24.70	25.10
Average	August	0.86	2.76	220.00	0.063	6.50	6.74	22.92	23.46

**Winter Impoundment
Sampling Location
Map**



Winter Project Water Quality Sample Location
 N45° 55.749' W050° 57.354'
 Elevation 1362'
 Looking Upstream From The Diversion Dam Towards The Left
 About 10' From Shore

Winter Diversion Dam



Appendix A

April 13, 2015 Sampling Documents (Ice-Out)

IMPOUNDMENT SAMPLING LOG

2015 Water Quality Study - Winter Hydroelectric Project - FERC #2064

TWL - 1346.50

Date: 4/13/15

Pre-Sampling Data: HWL-1370.53

CFS-613

Time: 1:00 Barometer: 29.92 Air Temp: 13.8 °C Wind Speed: W17MPH G 28MPH

Sky Conditions: MOSTLY CLOUDY

Precipitation within Last 24 Hours: YES .2"

D.O. Meter Calibration: Instrument Model Used: Hach HQ40d

Were The Batterys Changed? Yes No If Yes, When Changed: 4/13/15

Battery Status: 100% Charge

Calibration Time: 3/11/2015 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 3.0 Meter

Secchi Disk Depth: (E0.1 Meter) .8 Meter Time: 1.05

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.#: <u>0413151A</u>		
Time	Quantity (ml)	Filtered
<u>1:07</u>	<u>1000</u>	<u>NO</u>

True Color (1 Meter Below Surface)

Lab Sample I.D.#: <u>0413151B</u>	
Time	Quantity (ml)
<u>1:09</u>	<u>250</u>

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	<u>1:15</u>	<u>9.57</u>	<u>11.6</u>
1 Meter	<u>1:17</u>	<u>9.67</u>	<u>11.2</u>
2 Meter	<u>1:19</u>	<u>9.72</u>	<u>11.0</u>
3 Meter			
4 Meter			
5 Meter			
6 Meter			
7 Meter			
8 Meter			
.5 Mtr Above Bottom	<u>1:21</u>	<u>9.7</u>	<u>11.0</u>

Phosphorus

Lab Sample I.D.#: <u>0413151C</u>	
(1 Meter Below Surface)	
Time	Preserved?
<u>1:12</u>	<u>H₂SO₄</u>

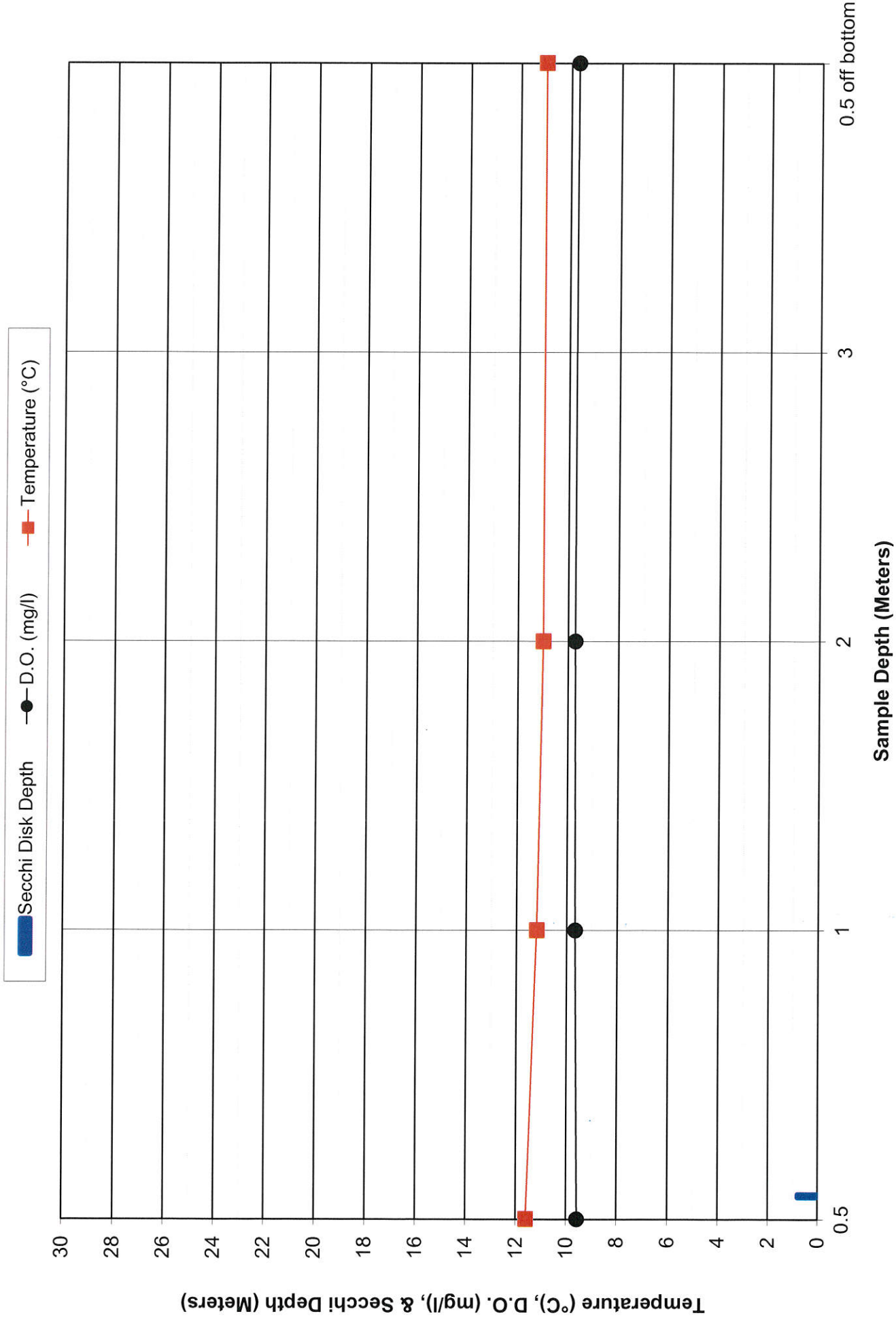
Lab Sample I.D.#: _____	
(1 Meter Above Bottom)	
Time	Preserved?
_____	_____

Sample Location: N45° 55.749' W90° 57.354'

Comments: _____

Performed By: GARY RAST & JIM TESCH

Winter Impoundment - FERC # 2064 April 13, 2015 Iceout Sampling Event



ANALYTICAL REPORT

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. W100034
 Printed: 04/29/15 Code: NNNN-S Page 1 of 1

Client: Renewable World Energies
Attn: Gary Rast
 100 State Street
 P.O. Box 264
 Neshkoro, WI 54960

NLS Project: 238496
NLS Customer: 102823
 Phone: 855 994 9376

Project: Winter

041315 A NLS ID: 853475

COC: 167657:1 Matrix: SW
 Collected: 04/13/15 13:07 Received: 04/14/15

Parameter

Chlorophyll, all species
 Lab filtration for Chlorophyll

Result
 see attached
 yes

Units
 see attached

Analyzed
 04/28/15
 04/14/15

Method
 10200-H
 NA

Lab
 721026460
 721026460

041315 B NLS ID: 853565

COC: 167657:2 Matrix: SW
 Collected: 04/13/15 13:09 Received: 04/14/15

Parameter

Color, APHA (true)
 Lab filtration

Result
 180
 yes

Units
 C.P.U.

Analyzed
 04/14/15
 04/14/15

Method
 SM 2120-B 20ed
 NA

Lab
 721026460
 721026460

041315 C NLS ID: 853566

COC: 167657:3 Matrix: SW
 Collected: 04/13/15 13:12 Received: 04/14/15

Parameter

Phosphorus, tot. as P

Result
 0.036

Units
 mg/L

Analyzed
 04/16/15

Method
 SM 4500P-E 20ed

Lab
 721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD)
 DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
 MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:



Authorized by:
 R. T. Krueger
 President

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 238496
Winter

Sample	Description	CC a	Pheo a	IC a	IC b	TC c
853475	041315 A	3.2	0.59	3.7	0.19	0.5

CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm² for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

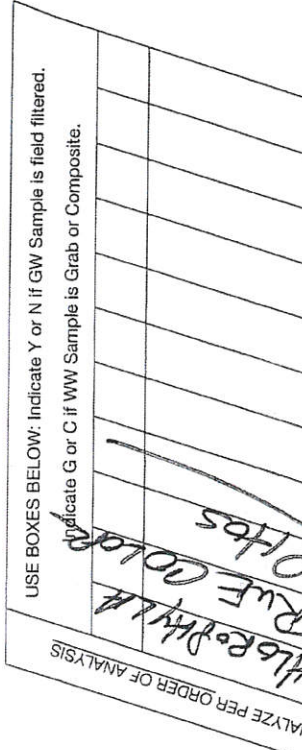
SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services
 400 North Lake Avenue • Crandon, WI 54520-1298
 Tel: (715) 478-2777 • Fax: (715) 478-3060

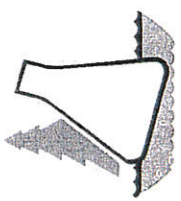
Wisconsin Lab Cert. No. 721026460
 WI DATCP 105-000330

CLIENT: **REMEMBER WORLD ENERGIES LLC**
 ADDRESS: **1005 ST PO BOX 264**
 CITY: **NESHKORO WI** STATE: **WI** ZIP: **54960**
 PROJECT DESCRIPTION / NO: **WINTER** QUOTATION NO.
 DNR FID #: _____ DNR LICENSE # _____
 CONTACT: **GARY RAST** PHONE: **855-994-9326**
 PURCHASE ORDER NO.: **VERBAL** FAX: **920-563-9344**



- MATRIX:
 SW = surface water
 WW = waste water
 GW = groundwater
 DW = drinking water
 TIS = tissue
 AIR = air
 SOIL = soil
 SED = sediment
 PROD = product
 SL = sludge
 OTHER

ITEM NO.	NLS TAG	SAMPLE ID	COLLECTION		MATRIX (See above)	COLLECTION REMARKS (i.e. DNR Well ID #)
			DATE	TIME		
1.	041315A	041315A	4/13/15	1:07	DRINKING WATER	
2.	041315B	041315B	4/13/15	1:09	"	
3.	041315C	041315C	4/13/15	1:12	"	
4.						
5.						
6.						
7.						
8.						
9.						
10.						



NO. 167657

COLLECTED BY (signature): *[Signature]* DATE/TIME: 4/13/15 1:07-1:12
 RELINQUISHED BY (signature): *[Signature]* DATE/TIME: 4/13/15 3:00
 METHOD OF TRANSPORT: UPS
 RECEIVED AT NLS BY (signature): *[Signature]* DATE/TIME: 4/14/15 10
 CONDITION: *[Handwritten]*
 REMARKS & OTHER INFORMATION: *[Handwritten]*
 WDNR FACILITY NUMBER: _____ E-MAIL ADDRESS: _____

REPORT TO: RWE 100 STATE ST PO BOX 264 NESHKORO WI 54960
 INVOICE TO: RWE 1001 STEPHENSON STREET NORWAY MI 49870

IMPORTANT!
 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, NOT PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICE TO, AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

Appendix B

July 6, 2015 Sampling Documents

IMPOUNDMENT SAMPLING LOG

2015 Water Quality Study - Winter Hydroelectric Project - FERC #2064

CFS = 256 HWL = 1370.65 Date: 7/6/15

Pre-Sampling Data: TWL = 1345.60

Time: 2:00 Barometer: 29.91 Air Temp: 15 °C Wind Speed: N13MPH @ 22MPH

Sky Conditions: LIGHT RAIN, FOG, MIST, OVERCAST

Precipitation within Last 24 Hours: YES

D.O. Meter Calibration: Instrument Model Used: Hach HQ40d

Were The Batterys Changed? Yes No If Yes, When Changed: _____

Battery Status: 70% Charge

Calibration Time: 3/11/2015 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 3.2 Meter

Secchi Disk Depth: (E0.1 Meter) 0.7 Meter Time: 2:10

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.#: 150706-1A		
Time	Quantity (ml)	Filtered
2:00	1000	NO

True Color (1 Meter Below Surface)

Lab Sample I.D.#: 150706-1A	
Time	Quantity (ml)
2:02	250

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	2:15	6.50	22.3
1 Meter	2:16	6.53	22.3
2 Meter	2:17	6.48	22.3
3 Meter			
4 Meter			
5 Meter			
6 Meter			
7 Meter			
8 Meter			
.5 Mtr Above Bottom	2:18	6.47	22.3

Phosphorus

Lab Sample I.D.#: 150706-1C	
(1 Meter Below Surface)	
Time	Preserved?
2:05	142504

Lab Sample I.D.#: _____	
(1 Meter Above Bottom)	
Time	Preserved?
_____	_____

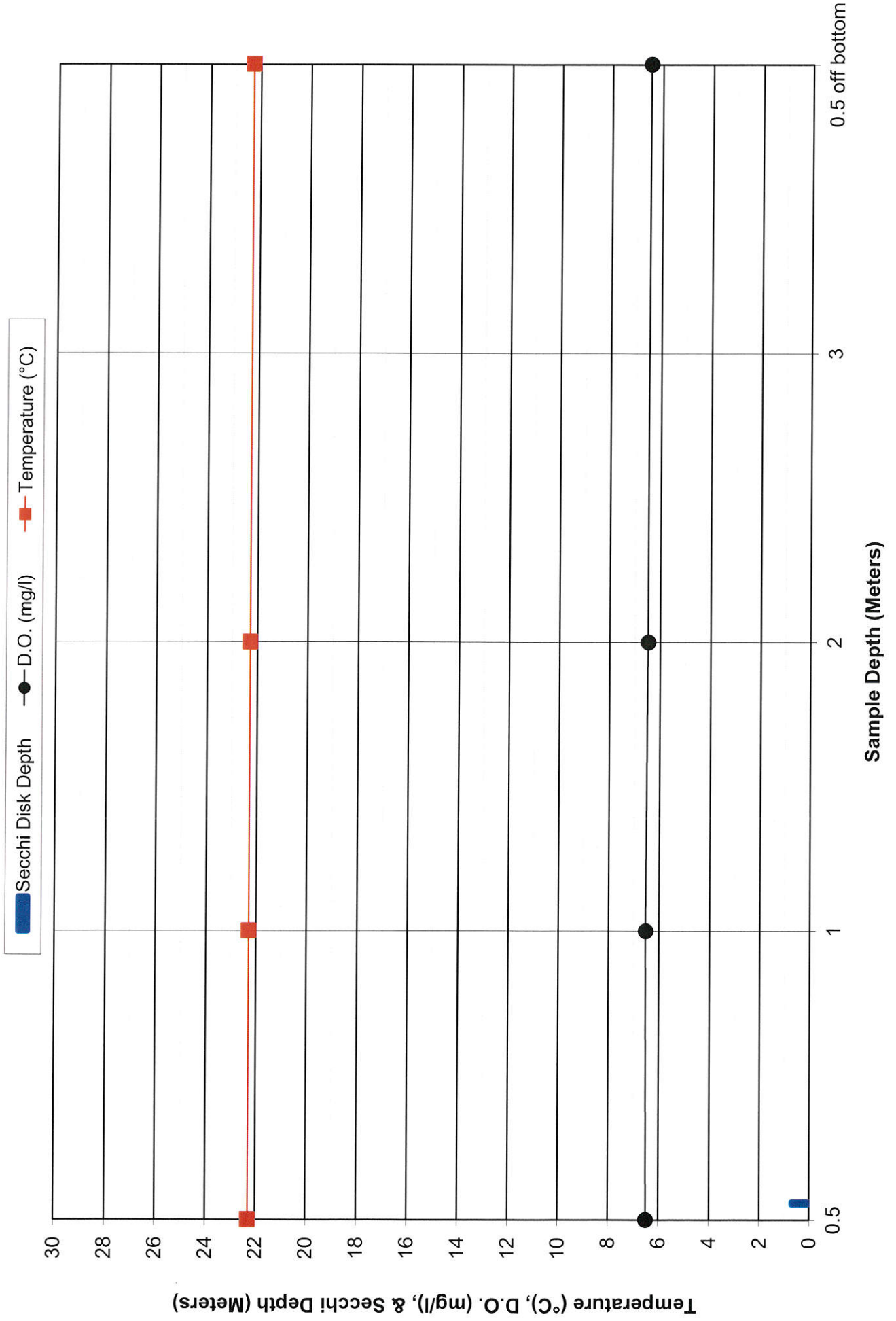
Sample Location: N45° 55.749' W90° 57.354'

Comments: _____

Performed By: GARY RAST & JIM TESCH

Winter Impoundment - FERC # 2064

July 6, 2015 Sampling Event



ANALYTICAL REPORT

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. WI00034

Printed: 07/31/15 Code: NNNN-S Page 1 of 1
 NLS Project: 243245
 NLS Customer: 102823
 Phone: 855 994 9376

Client: Renewable World Energies
 Attn: Gary Rast
 100 State Street
 P.O. Box 264
 Neshkoro, WI 54960

Project: Winter

150706-1A NLS ID: 869043

COC: 179121:1 Matrix: SW
 Collected: 07/06/15 14:00 Received: 07/07/15

Parameter

Chlorophyll, all species
 Lab filtration for Chlorophyll

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
see attached					07/29/15	10200-H	721026460
yes					07/07/15	NA	721026460

150706-1B NLS ID: 869044

COC: 179121:2 Matrix: SW
 Collected: 07/06/15 14:02 Received: 07/07/15

Parameter

Color, APHA (true)
 Lab filtration

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
250	C.P.U.	5	25*		07/07/15	SM 2120-B 20ed	721026460
yes					07/07/15	NA	721026460

150706-1C NLS ID: 869045

COC: 179121:3 Matrix: SW
 Collected: 07/06/15 14:05 Received: 07/07/15

Parameter

Phosphorus, tot. as P

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
0.044	mg/L	1	0.0070*		07/23/15	4500-P E-1999	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

LOD = Limit of Detection
 DWB = Dry Weight Basis
 MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

ND = Not Detected (< LOD)
 %DWB = (mg/kg DWB) / 10000

1000 ug/L = 1 mg/L

Reviewed by: 

Authorized by:
 R. T. Krueger
 President

Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 243245
Winter

Sample	Description	CC a	Pheo a	TC a	TC b	TC c
869043	150706-1A	0.99	1.2	1.8	0.0051	0.019

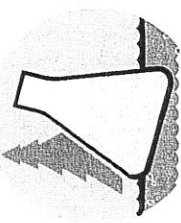
CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm² for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD **NORTHERN LAKE SERVICE, INC.**

Wisconsin Lab Cert. No. 721026460
WI DATCP 105-000330

Analytical Laboratory and Environmental Services
400 North Lake Avenue • Crandon, WI 54520-1298
Tel: (715) 478-2777 • Fax: (715) 478-3060



No. 179121

CLIENT: **RWE**
 ADDRESS: **100 S STATE STREET PO BOX 2264**
 CITY: **NESHKONONGO WI** STATE: **WI** ZIP: **54960**
 PROJECT DESCRIPTION: **WINTER** QUOTATION NO.
 DNR FID # _____ DNR LICENSE # _____
 CONTACT: **CHRYSTAL** PHONE: **855-994-9376**
 PURCHASE ORDER NO: _____ FAX: _____
 VERBAL

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS

MATRIX:	SW = surface water	WW = waste water	GW = groundwater	DW = drinking water	TIS = tissue	AIR = air	SOIL = soil	SED = sediment	PROD = product	SL = sludge	OTHER
Alloep Plan											
True Gold											
Phos											

ITEM NO.	NLS LAB NO.	SAMPLE ID	COLLECTION DATE	TIME	MATRIX (See above)
1.	869043	50706-1A	7/6/15	2:02	RIVER
2.	044	50706-1B	7/6/15	2:02	WATER
3.	045	50706-1C	7/6/15	2:05	"
4.					
5.					
6.					
7.					
8.					
9.					
10.					

COLLECTED BY (signature): **CHRYSTAL** DATE/TIME: **7/6/15 2:00-2:05**
 RELINQUISHED BY (signature): _____ DATE/TIME: _____
 DISPATCHED BY (signature): _____ DATE/TIME: **7/6/15 3:15 PM**
 RECEIVED BY (signature): _____ DATE/TIME: _____
 METHOD OF TRANSPORT: **UPS**
 RECEIVED AT NLS BY (signature): _____ DATE/TIME: **7-7-15 10:15 AM**
 REMARKS & OTHER INFORMATION: **CONDN**
 COOLER # _____
 PRESERVATIVE: N = nitric acid OH = sodium hydroxide
 NP = no preservative Z = zinc acetate HA = hydrochloric & ascorbic acid
 S = sulfuric acid M = methanol H = hydrochloric acid

REPORT TO: **SAME AS ABOVE**
 INVOICE TO: **RWE**
1901 STEPHENSON ST
NORWAY, WI 54987

IMPORTANT:
 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

Appendix C

August 3, 2015 Sampling Documents

IMPOUNDMENT SAMPLING LOG

2015 Water Quality Study - Winter Hydroelectric Project - FERC #2064

HWL - 1370.29

Date: 8/3/15

Pre-Sampling Data:

TWL - 1374.60

60 CFS

Time: 12:30 Barometer: 29.86 Air Temp: 20.55 °C Wind Speed: NW 10 MPH

Sky Conditions: OVERCAST + PERIODS OF SUNSHINE

Precipitation within Last 24 Hours: YES

D.O. Meter Calibration:

Instrument Model Used:

Hach HQ40d

Were The Batterys Changed? Yes No If Yes, When Changed: _____

Battery Status: 60% Charge

Calibration Time: 3/11/2015 Method: Factory

Sampling Depth Profile: Measured Depth to Bottom of the Impoundment: 3.0 Meter

Secchi Disk Depth: (E0.1 Meter) .7 Meter Time: 12:35

Chlorophyll a (1 Meter Below Surface)

Lab Sample I.D.#: <u>0803151A</u>		
Time	Quantity (ml)	Filtered
<u>12:45</u>	<u>1000</u>	<u>NO</u>

True Color (1 Meter Below Surface)

Lab Sample I.D.#: <u>080315-1B</u>	
Time	Quantity (ml)
<u>12:47</u>	<u>250</u>

D.O. Sample Data

Depth	Time	D.O. (mg/l)	°C
.5 Mtr Below Surface	<u>12:51</u>	<u>6.10</u>	<u>23.2</u>
1 Meter	<u>12:52</u>	<u>6.08</u>	<u>23.1</u>
2 Meter	<u>12:53</u>	<u>5.96</u>	<u>22.9</u>
3 Meter	 	 	
4 Meter	 	 	
5 Meter	 	 	
6 Meter	 	 	
7 Meter	 	 	
8 Meter	 	 	
.5 Mtr Above Bottom	<u>12:55</u>	<u>5.95</u>	<u>22.8</u>

Phosphorus

Lab Sample I.D.#: <u>080315-1C</u>	
(1 Meter Below Surface)	
Time	Preserved?
<u>12:50</u>	<u>H2SO4</u>

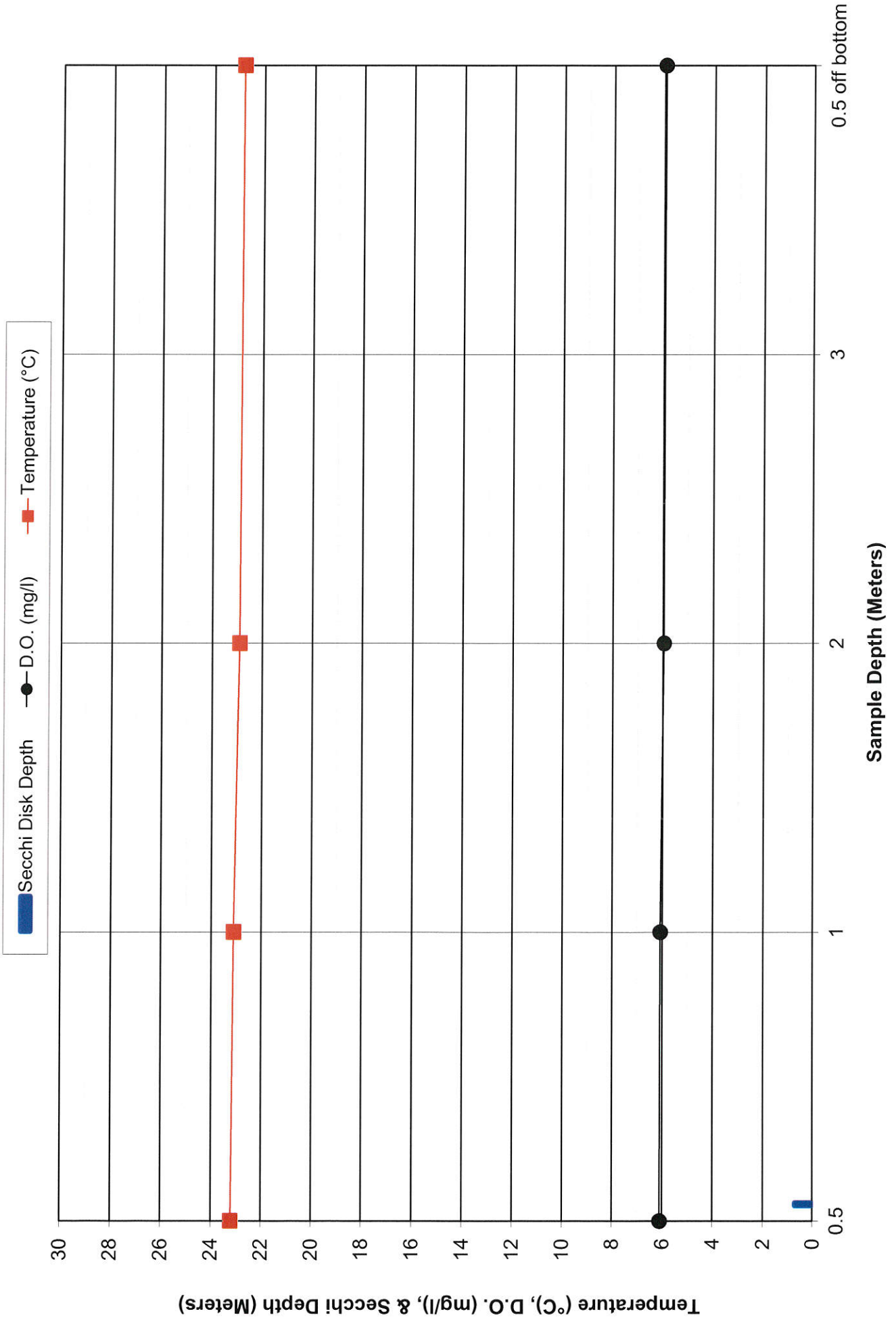
Lab Sample I.D.#: _____	
(1 Meter Above Bottom)	
Time	Preserved?
 	

Sample Location: N45° 55.749' W90° 57.354'

Comments: _____

Performed By: GARY RAST + JIN TESCH

Winter Impoundment - FERC # 2064 August 3, 2015 Sampling Event



ANALYTICAL REPORT

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. WI00034

Printed: 08/11/15 Code: NNNN-S Page 1 of 1
 NLS Project: 244995
 NLS Customer: 102823
 Phone: 855 994 9376

Client: Renewable World Energies
Attn: Gary Rast
 100 State Street
 P.O. Box 264
 Neshkoro, WI 54960

Project: Winter

080315-1A NLS ID: 874514

COC: 185787:1 Matrix: SW
 Collected: 08/03/15 12:45 Received: 08/04/15

Parameter

Chlorophyll, all species
 Lab filtration for Chlorophyll

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
see attached yes					08/07/15 08/04/15	10200-H NA	721026460 721026460

080315-1B NLS ID: 874515

COC: 185787:2 Matrix: SW
 Collected: 08/03/15 12:47 Received: 08/04/15

Parameter

Color, APHA (true)
 Lab filtration

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
300 yes	C.P.U.	5	25*		08/04/15 08/04/15	SM 2120-B 20ed NA	721026460 721026460

080315-1C NLS ID: 874516

COC: 185787:3 Matrix: SW
 Collected: 08/03/15 12:50 Received: 08/04/15

Parameter

Phosphorus, tot. as P

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
0.051	mg/L	1	0.0070*		08/06/15	4500-P E-1999	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

LOD = Limit of Detection LOQ = Limit of Quantitation ND = Not Detected (< LOD)
 DWB = Dry Weight Basis NA = Not Applicable %DWB = (mg/kg DWB) / 10000
 MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

1000 ug/L = 1 mg/L

Reviewed by:

Authorized by:
 R. T. Krueger
 President



Northern Lake Service, Inc.
Chlorophyll Results

Customer: Renewable World Energies
Project: 244995
Winter

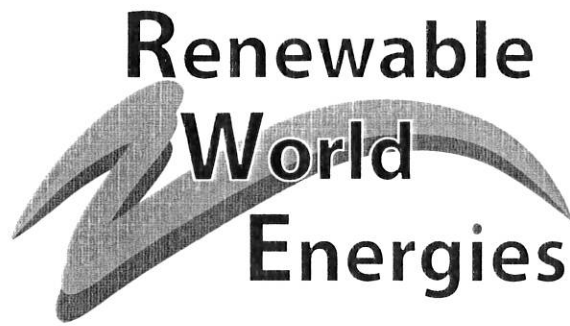
Sample	Description	CC a	Pheo a	TC a	TC b	TC c
874514	080315-1A	2.7	0.88	3.3	0.26	0.3

CC a = Corrected Chlorophyll a
Pheo a = Pheophytin a
TC a = Trichromatic Chlorophyll a
TC b = Trichromatic Chlorophyll b
TC c = Trichromatic Chlorophyll c
Units = ug/L for Water, ug/cm² for periphyton samplers

*: The complex calculations used to differentiate the various chlorophyll species magnify error at low concentrations and sometimes produce negative values, which are reported as 0.0 on this report.

Appendix D

Agency Correspondence



October 1, 2015

Mr. Nick Utrup
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
2661 Scott Tower Drive
New Franken, WI 54229

Ms. Cheryl Laatsch
Statewide FERC Coordinator
Wisconsin Dept. of Natural Resources
N7725 HWY 28
Horicon, WI 53032

Mr. Paul Strong, Forest Supervisor
USDA Forest Service Chequamegon, Nicolet NF
Forest Headquarters Offices
500 Hanson Lake R
Rhineland, WI 54501

**Re: Winter Hydroelectric Project
FERC Project Number P-2064
Flambeau Hydro LLC
Draft Report 2015 Water Quality Monitoring Data**

Dear Agency:

Purpose

On behalf of Flambeau Hydro LLC "Flambeau" (Licensee), Renewable World Energies, LLC is submitting a copy of the Draft Report 2015 Water Quality Monitoring Data for the Winter Hydroelectric Project for review and comment. Nothing out of the ordinary was experienced during the 2015 monitoring season except as noted in the report.

Background

The Federal Energy Regulatory Commission "FERC" issued a License to Flambeau on August 12, 2005. Portions of the original Certification were contested by the Licensee. The Wisconsin Department of Natural Resources (WDNR) submitted a revised Water Quality Certification, Dated at Park Falls, WI: August 19, 2008 that replaced the original certification of June 21, 2005. Only conditions E, F, and J were modified and a footnote was added to condition D according to the Final Settlement Agreement. The submitted report is a requirement of the License pursuant to Article 401 Condition N, Appendix A. 2015 marked the ninth year of water quality sampling under the FERC License issued August 12, 2005.

Corporate Office
P.O. Box 264
100 S. State Street
Neshkoro, WI 54960
Fax: 920-293-4100

Phone: 855-99HYDRO
(855-994-9376)
www.renewableworldenergies.com

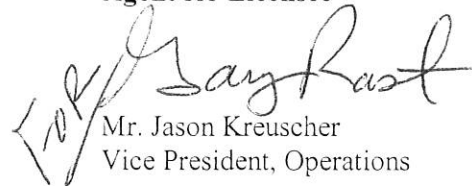
Administrative Office
1001 Stephenson Street
Norway, MI 49870
Fax: 906-563-9344



Conclusion

The Federal Energy Regulatory Commission's regulations allow for a 30 day formal review and comment period. Thank you in advance for providing your responses in a timely manner so we can include your comments and recommendations, as appropriate, into our report. If you have any questions concerning the report, please contact Mr. Gary Rast at the Renewable World Energies, LLC offices @ 855-994-9376 ext. 105, or by email at: grast@rwehydro.com.

Sincerely,
Renewable World Energies, LLC
Agent for Licensee

A handwritten signature in black ink, appearing to read "Mr. Jason Kreuzscher". The signature is written in a cursive style with a large initial "J".

Mr. Jason Kreuzscher
Vice President, Operations

Attachment: Draft Report 2015 Water Quality Monitoring Data – October 1, 2015

Cc: RWE, Corporate
Mr. Dale Higgins, FS
Ms. Sue Reinecke, FS