CDM
12501 World Plaza Lane, Building 51
Fort Myers, Florida 33907-3991
tel: 239 938-9600
fax: 239 275-6755

July 28, 2011

David Rhodes, P.G.
Underground Injection Control Program
Florida Department of Environmental Protection
South District Office
2295 Victoria Street Suite 364
Fort Myers, FL 33901-3881

Subject: Applications for Class I Injection Well Operation Permit
Cape Coral Everest Application No. 254592-002-UO/1I
Cape Coral Southwest WRF Application No. 254598-002-UO/1I
Cape Coral North Reverse Osmosis WTP Application No. 257996-003-UO/1I

Dear Mr. Rhodes:

The purpose of this letter is to provide a response to the Florida Department of Environmental Protection (FDEP) Request for Information (RFI) dated June 30, 2011 for the above referenced projects. For ease of review, each of the questions in the RFI is provided below in italics followed by our response.

Cape Coral Everest

1. *The letter providing an update for P&A costs for Cape Coral Everest was reviewed. In the letter it refers to a 2009 Certification of Financial Responsibility for $504,980. Department files do not have anything from 2009 on financial responsibility. The construction permit was issued 2006 and the financial demonstration was made in 2005. Further, the 2005 figure was $347,627, which is less than the current, (2011), estimate of $401,851. A new demonstration will be necessary, so in summation, the submitted letter provides the plan and costs meaning that all the agency will need is a new signed and notarized Certification form for $401,851.*

   The Certification of Financial Responsibility forms are currently prepared and awaiting signature from appropriate signatory. The City anticipates submitting the signed and notarized forms to Joe Haberfeld, FDEP Tallahassee, under separate cover by August 5, 2011. Attached is the survey of the injection and monitor wells and documentation that it was recorded with Lee County.

Cape Coral Southwest WRF

1. *The radius affected by injection needs to be re-calculated to take into account the volume of wastewater injected since operational testing began. If the radius increases beyond 1.5 miles, an expanded area of review study must be performed.*

The volume of injected wastewater since the inception of operational testing was accounted by adding the two years of operational testing to the calculation below. A 1.5 mile radius Area of Review does not change from the original application. The following assumptions were used for the revised volumetric calculations.

- **IW-1 has a maximum permitted injection rate of 9.6 MGD. The volume of RO concentrate and reclaimed water blend (injectate) generated from the Cape Coral Southwest WTP and WRF for 10 years into the future is based on the conservative maximum flow rate of 10 feet per second in the injection well.**
- **The injection zone has a vertical extent of 200 feet.**
- **The porosity of the injection zone is 20%.**

Volume of Injectate = (9,600,000 gallons x 365 days x 12 years) = 42,048,000,000 gallons

Using the equation:

$$Volume = radius^2 * \pi * \text{porosity } (\varphi) * 7.48\ gal/ft^3$$

and solving for the radius gives the following:

$$\text{radius} = \sqrt{\frac{42{,}048{,}000{,}000\ gallons}{\pi * \text{vertical thickness (200 feet)} * \text{porosity (0.20)} * 7.48\ gal/ft^3}}$$

radius = 6,688 feet or ~1.27 miles

Based on the above volumetric calculations and that there are no known or suspect faults within the area of review, the bubble of injected fluid is anticipated to have a radius of 6,688 feet (1.27 miles) from the injection wells after operation of the system with the above assumptions. A conservative 1.5-mile radius area of review was performed in support of this permit application to encompass the anticipated aerial extent of the bubble of injected fluid.

A tabulation of data of all the wells within the area of review was provided in Table F-1. Databases from Lee County, South Florida Water Management

District (SFWMD), Florida Department of Environmental Protection (FDEP) including Oil & Gas, and United States Geological Survey (USGS) were used to identify the wells within the Area of Review. No wells other than IW-1 and DZMW-1 penetrate the injection zone, confining zone, or monitoring zone of the system.

2. *Table C-1 lists monthly volume in gallons, but the numbers do not appear to be monthly injection totals. This table should be updated to reflect correct volumes and units.*

   Enclosed is revised Table C-1 that reflects the correct volumes and units.

3. *In Appendix I, it appears that monthly monitor well samples are presented. The tables and graphs of monitor well results need to be updated to show weekly sample results at the times they are required by the permit.*

   Enclosed are revised Tables I-1 and I-2 and revised Figures I-1, I-2, I-4, I-5, I-6, I-7, I-9, and I-10 depicting weekly sample results as required by the permit.

4. *Specific injectivity results must be submitted on a table or graph.*

   Enclosed is Table C-4 and Figure C-5 which depicts the specific injectivity for IW-1 during the testing phase.

5. *The survey of the injection and monitor wells in Appendix J does not contain documentation that it was recorded at the county courthouse. This is required under item 1.(f), page 6 of the application form.*

   Enclosed is the survey which was recorded with Lee County.

6. *The plugging and abandonment plan and cost estimates (Appendix K) are satisfactory. The new cost to plug and abandon the injection and monitor wells is $315,012 compared with the 2005 estimate of $271,803. A new Certificate of Financial Responsibility form, signed by the mayor, city manager, or chair of the city commission and notarized, should be submitted to Joseph Haberfeld, Florida Department of Environmental Protection, 2600 Blair Stone Road, MS 3530, Tallahassee, Florida 32399-2400.*

   The Certification of Financial Responsibility forms are currently prepared and awaiting signature from the appropriate signatory. The City anticipates submitting the signed and notarized forms to Joe Haberfeld, FDEP Tallahassee, under separate cover by August 5, 2011.

7. *Figure 2 should be revised and re-submitted to show the location of the dual zone monitor well.*

Enclosed is revised Figure 2 depicting the injection well system including the location of the dual zone monitor well.

Cape Coral North Reverse Osmosis

1. *The radius affected by injection needs to be re-calculated to take into account the volume of wastewater injected since operational testing began. If the radius increases beyond 1.5 miles, an expanded area of review study must be performed.*

The volume of injected wastewater since the inception of operational testing was accounted by adding the two years of operational testing to the calculation below. A 1.5 mile radius Area of Review does not change from the original application. The following assumptions were used for the volumetric calculations.

IW-1 has a maximum permitted injection rate of 7.41 MGD. The volume of RO concentrate generated from the NROWTP for two years during operational testing and 10 years into the future are based on the conservative maximum flow rate of 10 feet per second in the injection well.

The injection zone has a vertical extent of 200 feet.

The porosity of the injection zone is 20%.

Volume of Injectate = (7,410,000 gallons x 365 days x 12 years) = 32,455,800,000 gallons

Using the equation:

$Volume = radius^2 * \pi *$ porosity $(\varphi) * 7.48\ gal/ft^3$

and solving for the radius gives the following:

$$\text{radius} = \sqrt{\frac{32{,}455{,}800{,}000\ gallons}{\pi * \text{vertical thickness (200 feet)} * \text{porosity (0.20)} * 7.48\ gal/ft^3}}$$

radius = 5,876 feet or 1.11 miles

Based on the above volumetric calculations and that there are no known or suspect faults within the area of review, the bubble of injected fluid is anticipated to have a radius of 5,876 feet (1.11 miles) from the injection wells after operation of the system with the above assumptions. A conservative 1.5-mile radius area of review was performed in support of this permit application to encompass the anticipated aerial extent of the bubble of injected fluid.

A tabulation of data of all the wells within the area of review was provided in Table F-1. Databases from Lee County, South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP) including Oil & Gas, and United States Geological Survey (USGS) were used to identify the wells within the Area of Review. No wells other than IW-1 and DZMW-1 penetrate the injection zone, confining zone, or monitoring zone of the system.

2. *Table C-1 should be updated to show the monthly volume of WTP concentrate and WRF effluent injected. If WRF effluent was injected, the results of testing for the three required effluent parameters (ammonia, total Kjeldahl nitrogen, and nitrate plus nitrite) should be presented.*

   The WRF has not been constructed to date. Therefore, no WRF effluent has been disposed of via injection well.

3. *In Appendix I, it appears that monthly monitor wells samples are presented. The tables and graphs monitor well results need to be updated to show weekly sample results at the times they were required by the permit.*

   Enclosed are revised tables I-1 and I-2 and revised figures I-1, I-2, I-4, I-5, I-6, I-7, I-9, and I-10 depicting weekly sample results as required by the permit.

4. *Specific injectivity results must be submitted on a table or graph.*

   Enclosed is Table C-4 and Figure C-5 which depicts the specific injectivity for IW-1 during the testing phase.

5. *The survey of the injection and monitor wells in Appendix J does not contain documentation that it was recorded at the County courthouse. This is required under item 1. (f), page 6 of the application form.*

   Enclosed are copies of the original surveys recorded with Lee County.

6. *The plugging and abandonment plan and cost estimates (Appendix K) are satisfactory. A new Certificate of Financial Responsibility form is not required since the last estimate in 2006 used $409,055, and the revised estimate is less ($292,621).*

   Comment noted. No response required.

7. *If this well is to be permitted for WRF effluent injection in addition to RO concentrate, a recent (Within 12 months) comprehensive sample for primary and secondary drinking water standards for the effluent must be submitted.*

The WRF facility has not been constructed to date. A recent (within 12 months) comprehensive analyses for primary and secondary drinking water standards for the WRF effluent will be submitted immediately upon receipt after production of WRF effluent begins.

The upper monitor well has increased markedly in salinity since the start of injection, with total dissolved solids increasing from 3000 to 35,000 mg/L (Figure I-7). This is accompanied by a corresponding decrease in monitor well pressure (Figure I-6). The applicant must address the possible causes for this trend, comparing current water quality with background water quality.

The monitoring data for the upper zone was verified by the City of Cape Coral staff. The data for the upper zone does indicate a marked increase in salinity since monitoring began. However, the lower zone and injectate water quality data indicate no change since injection began. Data actually show that the increase in salinity, TDS, and specific conductivity began prior to injection in September 2009.

The upper zone water quality appears to be converging with the lower zone water quality with a decrease in the upper zone pressure as well. This may be due to a cross connection between the lower and upper zones.

Further investigation into the construction details as well as preparation of a plan to investigate the cause is underway. The plan will include pump tests on each zone, flow logs, and other tests to determine the possible cause(s) of the salinity trend. The plan will be submitted to FDEP for review and comments within 30 days.

Please do not hesitate to contact me should you have any questions concerning information provided in this RFI response.

Sincerely,

Paul Pinault

Paul Pinault, P.E.
Associate
Camp Dresser & McKee, Inc.

Enclosures

cc. James Alexander, FDEP- Tallahassee
Joe Haberfeld, FDEP Tallahassee
Nancy Marsh, USEPA
Steve Anderson, SFWMD

Ron Reese, USGS
Bill Peak, City of Cape Coral
Jeff Walter, City of Cape Coral
Robert Woods, City of Cape Coral

Cape Coral Everest WRF

Application No 254592-002-UO/1I

THIS INSTRUMENT PREPARED BY:
CDM
12501 World Plaza Lane #51
Fort Myers, FL 33907

On behalf of the City of Cape Coral Utilities (Everest WRF)

INSTR # 2011000166570, Pages 2
Doc Type AFF, Recorded 07/25/2011 at 04:20 PM,
Charlie Green, Lee County Clerk of Circuit Court
Rec. Fee $18.50
Deputy Clerk JMILLER
#2

Strap No. : 32-44-24-C1-01196.0010
Notice of Deep Injection Well IW-1 within 32-44-24

State of Florida
County of Lee

My name is Walter Wells and I work for CDM as a project manager. My client is the City of Cape Coral Utilities.

This Notice as to the location of the Deep Injection Well is intended to fulfill the requirements of Rule 62-528.455 (l)(c)(6), Florida Administrative Code as stated in the Florida Department of Protection Permit No. 254592-001-UC.

To the best of my knowledge, the subject Deep Injection well is located as set forth in the attached Exhibit A.

SIGNED, SEALEED AND DELIVERED IN THE PRESENCE OF TWO WITNESSES:

1st Witness Signature

Kelly R. Probst
Printed Name of 1st Witness

2nd Witness Signature

BRAD D COOK
Printed Name of 1st Witness

Signature
Title: Project Manager

Walter D. Wells
Printed Name

STATE OF FLORIDA
COUNTY OF LEE

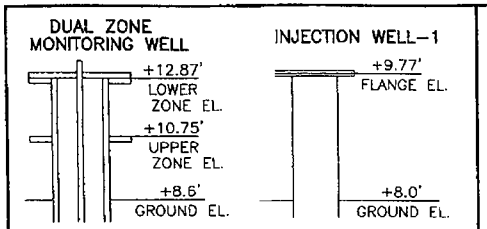
The foregoing instrument was acknowledged before me on this 25th day of July, 2011, by Walter Wells. He/~~she~~ is personally known to me~~, or who has produced~~ _____ as identification.
(type of identification)

Signature of Notary Public

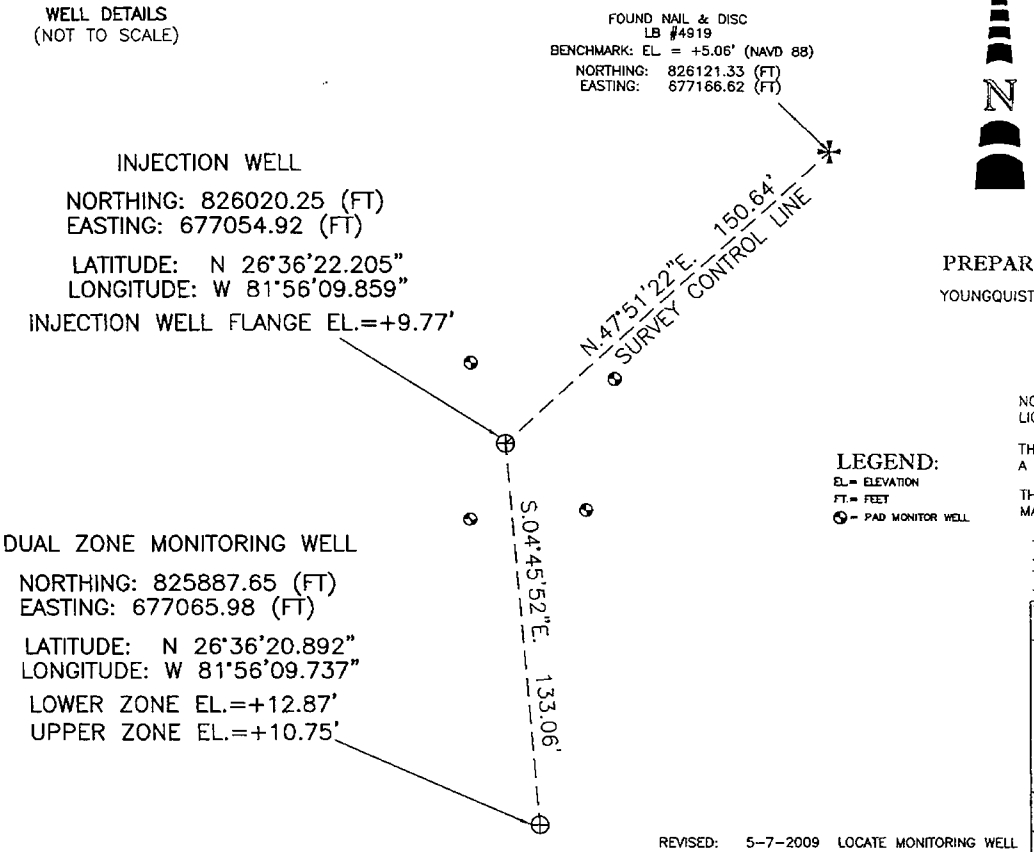
LINDA S. KRACZON
Notary Public - State of Florida
My Comm. Expires Mar 28, 2015
Commission # EE 78882
Bonded Through National Notary Assn.

SPECIFIC PURPOSE SURVEY

LYING IN
SECTION 32, TOWNSHIP 44 SOUTH, RANGE 24 EAST
CITY OF CAPE CORAL, LEE COUNTY, FLORIDA



WELL DETAILS
(NOT TO SCALE)



N

NOTES:

THIS PLAT PREPARED AS A SPECIFIC PURPOSE SURVEY FOR THE PURPOSE OF LOCATING THE WELLS IN EVEREST WATER RECLAMATION FACILITIES EXPANSION.

BEARINGS AND COORDINATES SHOWN HEREON ARE STATE PLANE FOR THE FLORIDA WEST ZONE NAD 83/2007 ADJUSTMENT AND BASED ON A CONTROL POINT PROVIDED BY MWH BEING A FOUND NAIL & DISC LB #4919.

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND REFERENCED TO A CONTROL POINT PROVIDED BY MWH BEING A FOUND NAIL & DISC LB #4919.

ABOVEGROUND & UNDERGROUND IMPROVEMENTS, UTILITIES AND/OR FOUNDATIONS WERE NOT LOCATED UNLESS OTHERWISE NOTED.

DATE OF LAST FIELD WORK: 5-7-2009

PREPARED FOR:

YOUNGQUIST BROTHERS, INC.

BY: _____
DENIS J. BRODNELL, JR.
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. LS# 5430

DATE SIGNED: 5/8/09

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

THIS SPECIFIC PURPOSE SURVEY IS ONLY FOR THE LANDS AS DESCRIBED. IT IS NOT A CERTIFICATE OF TITLE, ZONING, EASEMENTS OR FREEDOM OF ENCUMBRANCES.

THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF AN ABSTRACT OF TITLE AND ALL MATTERS OF TITLE SHOULD BE REFERRED TO AN ATTORNEY AT LAW.

LEGEND:
EL.= ELEVATION
FT.= FEET
⊗ = PAD MONITOR WELL

REVISED: 5-7-2009 LOCATE MONITORING WELL
REVISED: 5-4-2009 LOCATE INJECTION WELL

EVEREST WATER RECLAMATION FACILITIES

TITLE: SPECIFIC PURPOSE SURVEY

METRON SURVEYING & MAPPING, LLC
LAND SURVEYORS-PLANNERS
LB# 7071

10970 S. CLEVELAND AVENUE, SUITE #605
FORT MYERS, FLORIDA 33907
PHONE: (239) 275-8575
FAX: (239) 275-8457
www.metronfl.com

FILE NAME:	FIELD BOOK/PAGE:	PROJECT NO.:	SHEET:
10745SR.DWG	452/59	10745	1 OF 1

SURVEY DATE:	DRAWN BY:	SCALE:	CHECKED BY:	(S-T-R)
1-25-2008	MAC	1"= 50'	DJO	32-44-24

Cape Coral Southwest WRF

Application No. 254598-002-UO/1I

Table C-1 - Injection Well IW-1 Monthly Operating Data

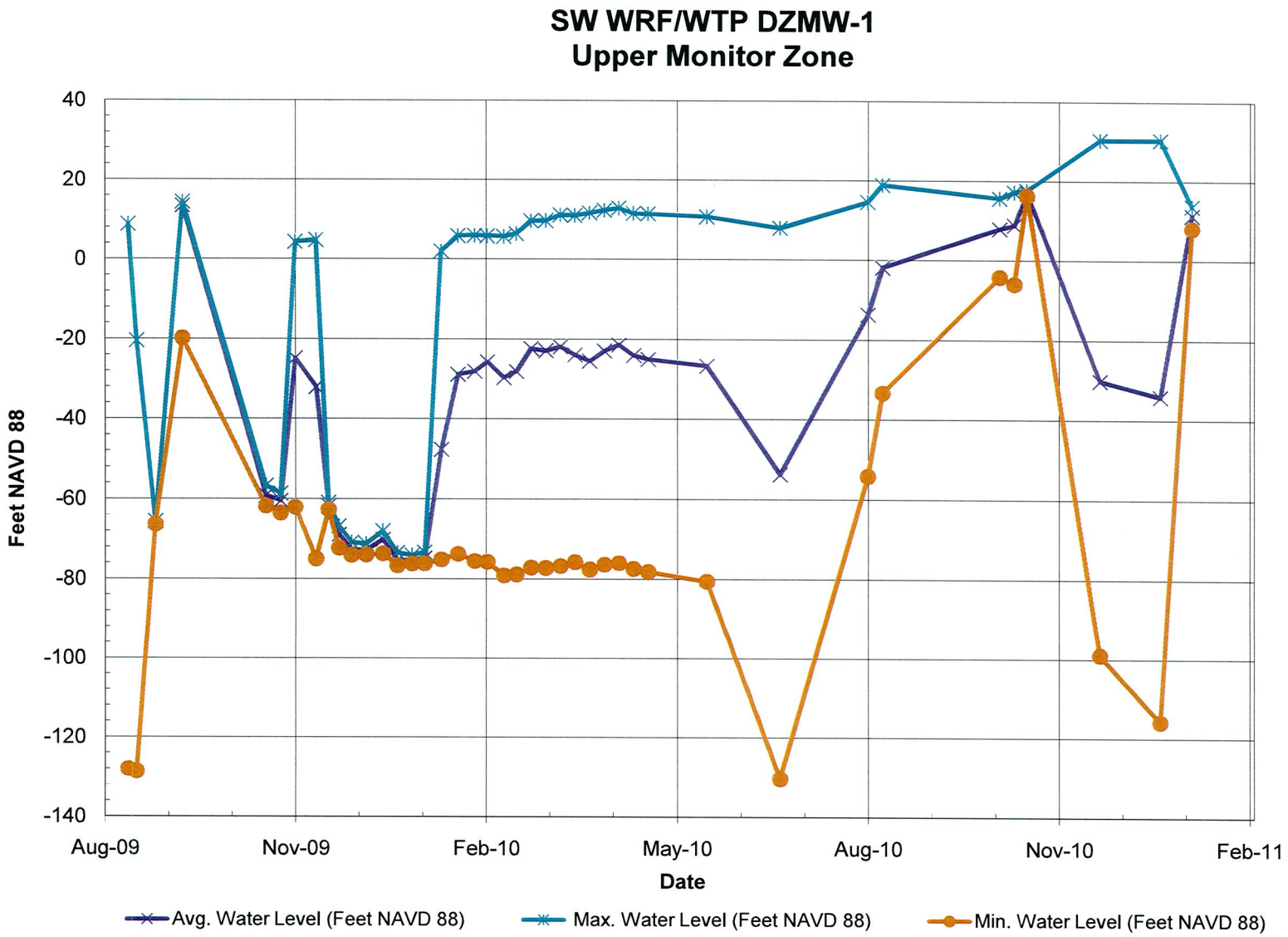
Date	Maximum Monthly Flow Rate (gpm)	Minimum Monthly Flow Rate (gpm)	Average Monthly Flow Rate (gpm)	Maximum Monthly Injection Pressure (psi)	Minimum Monthly Injection Pressure (psi)	Average Monthly Injection Pressure (psi)	Total Volume WRF Effluent Injected (Million Gallons)	Total Volume WTP Concentrate Injected (Million Gallons)
9/1/2009	4306	0	2122	30	28	28	0.090	0.000
10/1/2009	3570	0	115	33	27	28	0.100	0.000
11/1/2009	4792	0	6	38	0	20	0.230	0.000
12/1/2009	1982	0	1	29	8	17	0.073	0.000
1/1/2010	3525	0	7	27	0	16	0.319	0.000
2/1/2010	2200	0	6	28	12	18	0.238	0.000
3/1/2010	3556	0	7	28	15	18	0.306	0.000
4/1/2010	4417	0	6	29	15	19	0.233	0.000
5/1/2010	2969	0	3	33	16	24	0.148	0.000
6/1/2010	2973	0	53	31	0	8	2.485	0.000
7/1/2010	3105	0	50	38	0	19	2.342	0.000
8/1/2010	2442	0	3	30	16	20	0.165	0.000
9/1/2010	6295	0	57	46	0	26	2.486	0.000
10/1/2010	5447	0	56	41	27	29	2.457	0.000
11/1/2010	5324	0	126	41	24	28	5.620	0.000
12/1/2010	6674	0	110	37	16	27	4.825	0.000
1/1/2011	5657	0	145	37	27	28	3.608	6.688

Revised Table I-1 - SW WRF/WTP DZMW-1 Upper Zone Data

Date	Avg. Water Level (Feet NAVD 88)	Max. Water Level (Feet NAVD 88)	Min. Water Level (Feet NAVD 88)	Ammonia (mg/L)	Bicarbonate (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Field Temperature (deg C)	Iron (mg/L)	Magnesium (mg/L)	pH (s.u.)	Potassium (mg/L)	Sodium (mg/L)	Specific Conductance (umhos/cm)	Sulfate (mg/L as SO4)	TKN (mg/L as N)	TDS (mg/L)
5-Sep-09		8.9	-127.9	0.890	145.0	370	5900	28.2	3.00	450	7.50	100	400	16600	2690	1.56	12100
9-Sep-09		-20.4	-128.5	0.870			6720	28.8			7.37			17200	1390	1.50	12200
18-Sep-09		-65.6	-66.3	0.950			8170	28.8			7.29			17500	874	1.75	13000
1-Oct-09	13.594	14.486	-19.697														
10-Nov-09	-59.1	-56.6	-61.7	1.040	140.0	332	7120	28.2	2.69	457	7.44	109	3390	17500	273	1.60	12800
17-Nov-09	-60.4	-58.5	-63.4	0.876			6600	27.6			7.62			19700	351	1.10	12608
24-Nov-09	-24.7	4.4	-61.9	0.881			6820	28.1			7.57			19600	353	0.92	11900
4-Dec-09	-32.0	4.9	-74.9	0.874	139.4	382	7430	26.6	8.50	484	6.80	91	91.1	20000	343	0.89	12100
10-Dec-09	-61.6	-60.8	-62.6	0.760			7480	27.6			7.10			20100	351	0.94	11700
15-Dec-09	-68.8	-66.7	-72.2	0.812			7660	25.3			7.57			20100	347	0.84	12400
21-Dec-09	-72.6	-70.8	-74.0	0.764			7520	25.3			7.57			20300	354	0.80	11800
28-Dec-09	-72.7	-71.2	-73.9	0.856			7450	25.9			7.58			20400	356	0.86	11800
5-Jan-10	-70.0	-67.9	-73.7	0.795	131.3	307	7680	23.5	10.30	457	7.63	102	3870	20500	380	0.91	12000
12-Jan-10	-75.2	-73.4	-76.6	1.874			7180	23.4			7.59			20700	356	0.72	11800
19-Jan-10	-75.2	-74.0	-76.2	0.902			7430	26.1			7.64			20200	360	1.00	11700
25-Jan-10	-74.7	-73.2	-76.1	0.861			7230	27.9			6.90			20700	370	0.98	11800
2-Feb-10	-47.5	2.1	-75.1	0.928	129.0	379	7460	27.1	12.30	496	7.61	100	3840	20700	366	0.95	12000
10-Feb-10	-28.8	6.0	-73.7	0.892			7450	26.3			7.20			20500	391	0.98	1200
18-Feb-10	-28.0	6.1	-75.5	0.844			7420	26.7			7.58			20800	395	0.85	11600
24-Feb-10	-25.6	6.0	-75.7	0.921			7450	27.5			7.61			21200	371	0.95	12300
4-Mar-10	-29.6	5.8	-79.1	0.902			7470	26.5			7.62			20900	362	1.00	12700
10-Mar-10	-28.0	6.5	-78.8	0.880	133.5	331	7340	28.7	7.94	559	7.60	113	4250	21100	363	1.20	12500
17-Mar-10	-22.3	9.8	-77.1	0.851			7590	29.0			7.61			20800	372	1.10	12200
24-Mar-10	-22.8	9.9	-77.2	0.881			7660	26.4			7.52			20900	359	0.91	12200
31-Mar-10	-21.8	11.3	-76.7	0.883			7470	27.0			7.54			21000	389	1.20	12500
7-Apr-10	-23.8	11.2	-75.7	1.060	140.7	381	7440	27.2	14.45	544	7.57	102	4000	20800	384	1.30	12200
14-Apr-10	-25.4	11.8	-77.5	1.020			7790	27.2			7.59			20700	376	0.89	12700
21-Apr-10	-22.8	12.5	-76.3	0.975			7720	27.4			7.57			21500	380	1.00	12500
28-Apr-10	-21.3	13.0	-75.9	0.828			7440	27.2			7.58			21400	363	0.83	12800
5-May-10	-23.9	11.7	-77.3	0.950			7870	27.9			7.57			21200	368	1.10	12300
12-May-10	-24.9	11.6	-78.1	0.947	132.1	379	7410	27.3	14.20	536	7.59	116	4070	20900	383	1.10	12000
9-Jun-10	-26.5	10.9	-80.5	0.965	153.1	389	7560	26.1	5.81	527	7.44	99	3920	20700	371	1.10	12400
14-Jul-10	-53.6	8.1	-130.2	0.927	166.3	356	7770	27.7	8.36	537	7.71	99	3910	21300	360	1.10	12600
25-Aug-10	-13.5	14.8	-54.0	0.929	143.3	391	7880	26.5	10.81	513	7.56	111	416	20700	360	1.00	12600
1-Sep-10	-1.7	19.1	-33.2	0.869	126.6	383	7510	24.5	16.06	566	7.42	105	4100	20800	368	0.98	12400
27-Oct-10	8.1	15.8	-4.0	0.878	102.8	382	7940	25.5	56.60	557	7.39	108	4190	21300	392	1.10	12500
3-Nov-10	9.0	17.4	-5.8		97.3	265		26.0	16.70	460		99	3920				
9-Nov-10	17.2	17.8	16.4	0.820			7750	24.5			6.90			22100	439	0.73	15100
14-Dec-10	-30.1	30.6	-99.0	0.760	151.0	318	6630	26.0	6.08	461	7.40	120	3980	22500	ND	0.53	14100
12-Jan-11	-34.0	30.6	-115.7	0.820	147.0	335	7680	25.8	3.30	510	7.40	116	3790	22100	363	0.77	14600
27-Jan-11	11.6	13.9	8.3	0.810			8100	26.6			7.30			22200	363	0.77	14900

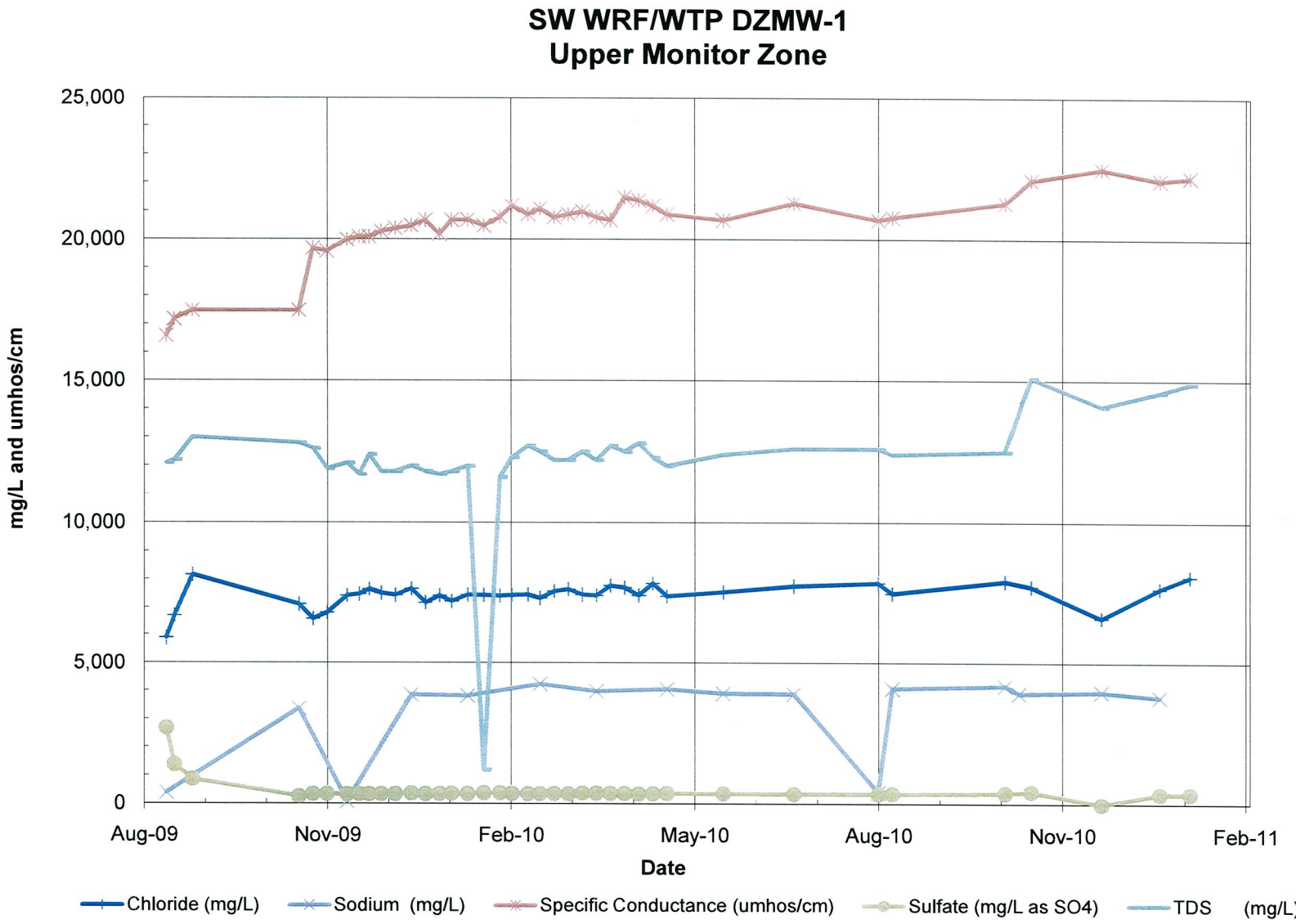
Revised Table I-2 - SW WRF/WTP DZMW-1 Lower Zone Data

Date	Avg. Water Level (Feet NAVD 88)	Max. Water Level (Feet NAVD 88)	Min. Water Level (Feet NAVD 88)	Amonia (mg/L)	Bicarbonate (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Field Temperature (deg C)	Iron (mg/L)	Magnesium (mg/L)	pH (s.u.)	Potassium (mg/L)	Sodium (mg/L)	Specific Conductance (umhos/cm)	Sulfate (mg/L as SO4)	TKN (mg/L as N)	TDS (mg/L)	Gross Alpha	Radium 226	Radium 228
3-Sep-09		11.8	-54.5	0.340	150.0	580	17900	36.8	0.430	1000	7.04	410	13000	43700	3790	1.49	28300	7.5	2.7	0.3
8-Sep-09		11.9	-55.1	0.390			18000	30.6			7.09			43400	3000	1.45	32200			
15-Sep-09		12.2	-43.5	0.500			17600	31.5			7.11			43000	2700	1.58	34200			
1-Oct-09	11.234	11.757	-20.703																	
10-Nov-09	-2.6	11.2	-41.7	0.520	150.0	586	18100	30.5	0.013	1070	7.20	564	11000	42000	2690	2.14	34700	9.7	0.1	0.6
17-Nov-09	1.3	10.9	-44.7	0.383			17900	29.9			7.40			46500	2500	0.54	29760			
24-Nov-09	1.3	10.6	-56.5	0.399			17300	30.1			7.41			46100	2240	0.41	31200			
1-Dec-09	0.1	11.1	-50.4	0.369			18500	29.9			7.12			45500	2260	0.86	31200	8.6	2.9	0.5
8-Dec-09	3.0	11.5	-48.1	0.383			18700	29.6			6.38			45800	2220	0.65	31300			
15-Dec-09	-2.0	11.6	-52.4	0.357			18300	31.5			7.44			47200	2180	0.52	30700			
21-Dec-09	-2.0	11.2	-58.5	0.347			17800	26.4			7.34			47300	2420	0.79	29100			
28-Dec-09	-2.2	11.6	-49.8	0.390			18400	28.6			7.49			47600	2420	0.87	31100			
5-Jan-10	0.6	11.5	-43.1	0.383	149.6	717	18800	23.0	0.136	1090	7.40	405	11100	47500	2540	0.72	31800	6.4	5.0	1.3
12-Jan-10	-0.4	16.8	-46.5	0.847			18100	24.4			7.43			47900	2140	0.78	30600			
19-Jan-10	3.1	15.6	-45.3	0.378			17600	28.3			7.39			46600	2180	0.68	29900			
25-Jan-10	-3.8	10.8	-46.8	0.368			18500	27.9			6.80			47200	2580	0.79	31700			
2-Feb-10	-1.3	11.1	-46.8	0.395	148.0	755	18500	28.6	0.135	1200	7.38	405	11500	47700	2210	0.60	31200	9.6	4.3	0.8
10-Feb-10	0.9	11.6	-43.5	0.381			18400	27.0			7.00			47000	2600	0.72	31900			
18-Feb-10	1.0	12.3	-46.6	0.384			18500	27.7			7.43			47300	2370	0.75	31800			
24-Feb-10	2.3	11.7	-46.5	0.390			17600	29.0			7.44			47500	2320	0.96	30500			
4-Mar-10	2.6	13.6	-47.4	0.411	146.4	665	18400	27.8	0.151	1240	7.38	407	11600	47600	2650	0.83	33400	12.0	3.8	0.6
10-Mar-10	1.9	11.1	-47.3	0.373			18100	30.2			7.45			47800	2600	0.88	32900			
17-Mar-10	2.9	12.8	-46.8	0.379			18700	29.1			7.43			47500	2330	1.00	34900			
24-Mar-10	2.2	11.8	-47.0	0.388			19000	29.4			7.37			47700	2260	0.74	31800			
31-Mar-10	2.7	11.9	-46.8	0.402			17500	29.9			7.38			47700	2100	0.65	32500			
7-Apr-10	3.1	12.3	-47.2	0.488	148.8	693	17400	29.2	0.156	1140	7.52	408	10800	47600	2020	0.70	32800	16.0	3.9	0.6
14-Apr-10	3.0	13.7	-47.7	0.473			18600	29.5			7.42			47300	2240	0.60	34600			
21-Apr-10	3.3	12.3	-46.9	0.435			16900	29.7			7.45			48300	2290	0.65	34800			
28-Apr-10	3.8	14.0	-51.7	0.367			16800	29.3			7.42			47300	2000	0.78	34500			
5-May-10	3.2	11.8	-49.8	0.423			18700	29.7			7.45			47400	2080	0.71	35200			
12-May-10	2.4	13.0	-50.9	0.433	145.6	777	18700	29.4	0.171	1080	7.46	447	11500	47100	2130	0.55	35200	22.0	4.6	0.6
9-Jun-10	2.4	11.4	-50.3	0.405	145.8	633	16400	29.5	0.152	1070	7.71	480	10800	46900	2620	0.91	34200	8.8	4.1	0.5
14-Jul-10	-4.4	11.6	-89.4	0.466	156.3	722	18700	29.9	0.196	1300	7.47	417	10700	48000	2250	1.2	33000	8.0	4.4	0.6
11-Aug-10	2.0	12.1	-61.1	0.359			16600	29.5	0.168	1340	7.38	367	10600	46800	2340	0.96	33900	15.0	4.1	0.6
1-Sep-10	5.8	16.4	-31.7	0.397	141.6	727	18900	30.0	0.210	1130	7.32	410	10100	47100	2270	1.1	35800	8.4	3.9	0.5
18-Oct-10	2.4	11.2	-53.7	0.356	140.8	675	16800	27.8	0.247	1100	7.38	380	9520	47200	2120	0.57	32800	8.7	3.6	0.6
3-Nov-10	-3.9	10.8	-90.4		211.0	640		28.0	3.340	1040		324							3.5	
9-Nov-10	30.7	30.7	30.7	0.360			21500	29.6			7.00			48100	2130	0.28	39000			
14-Dec-10	30.7	30.7	30.7	0.360	145.0	600	17100	27.0	ND	1060	7.00	400	11000	50100	1690	ND	31800	7.5	3.2	1.2
12-Jan-11	30.7	30.7	30.7	0.380	144.00	632	22900	27.1	ND	1,130	7.20	415	10,000	48900	2050	0.46	35700	7.8	4.9	11.6
27-Jan-11	30.7	30.7	30.7	0.340			19400	29.1			7.20			48200	2010	0.58	31200			



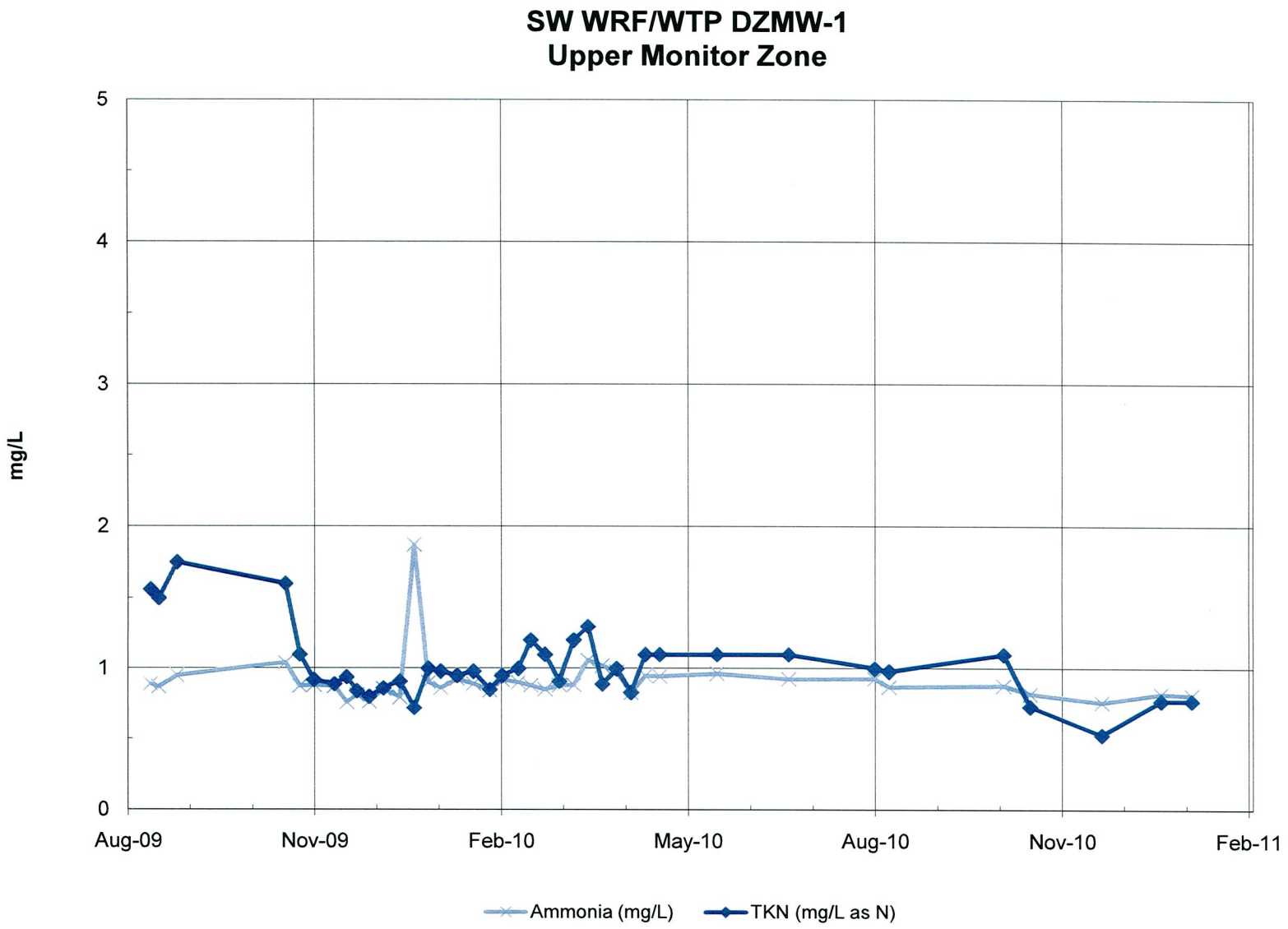
Revised Figure I-1
Upper Monitor Zone
Water Level Data

CDM



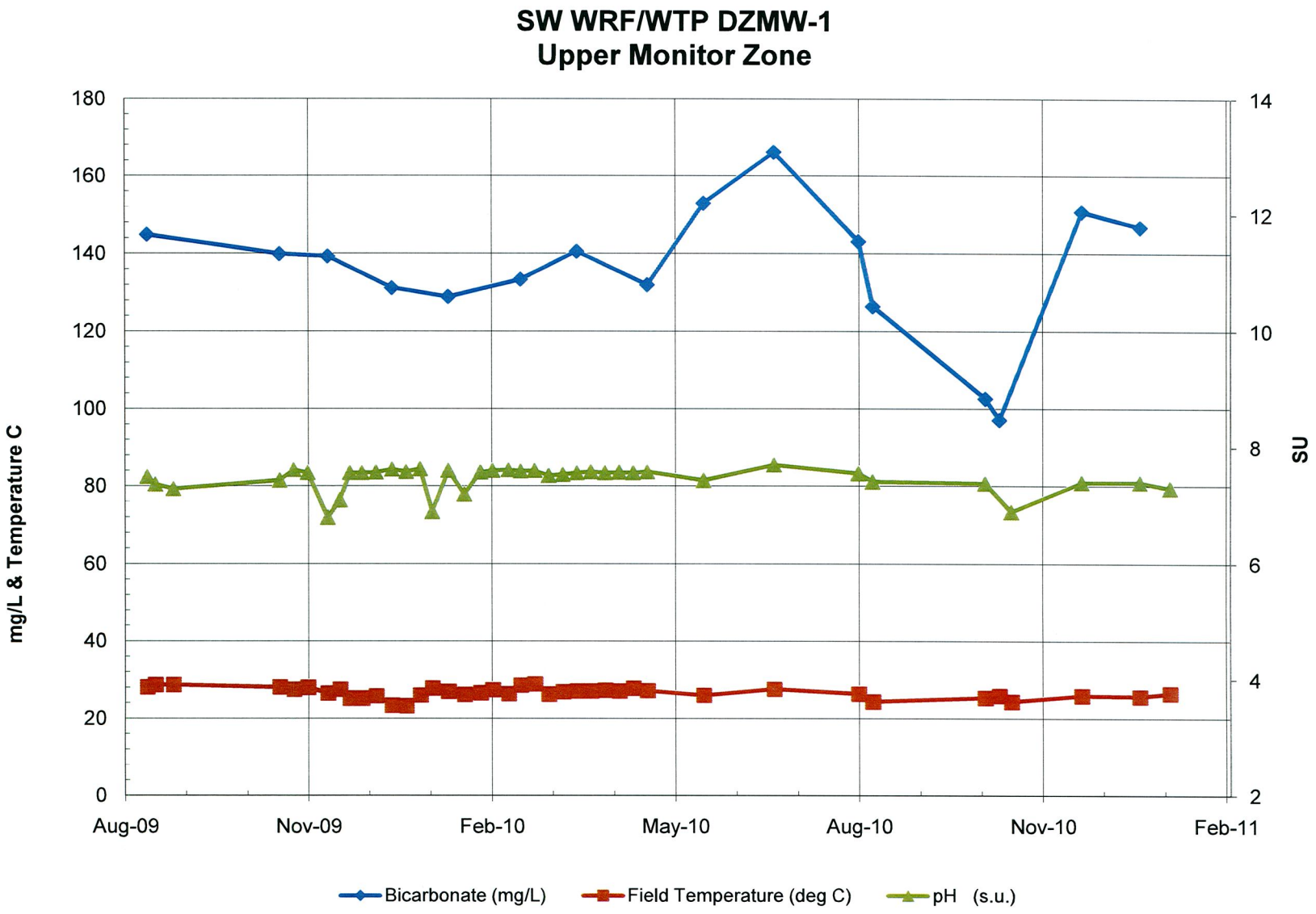
Revised Figure I-2
Upper Monitor Zone
Salinity Data

CDM



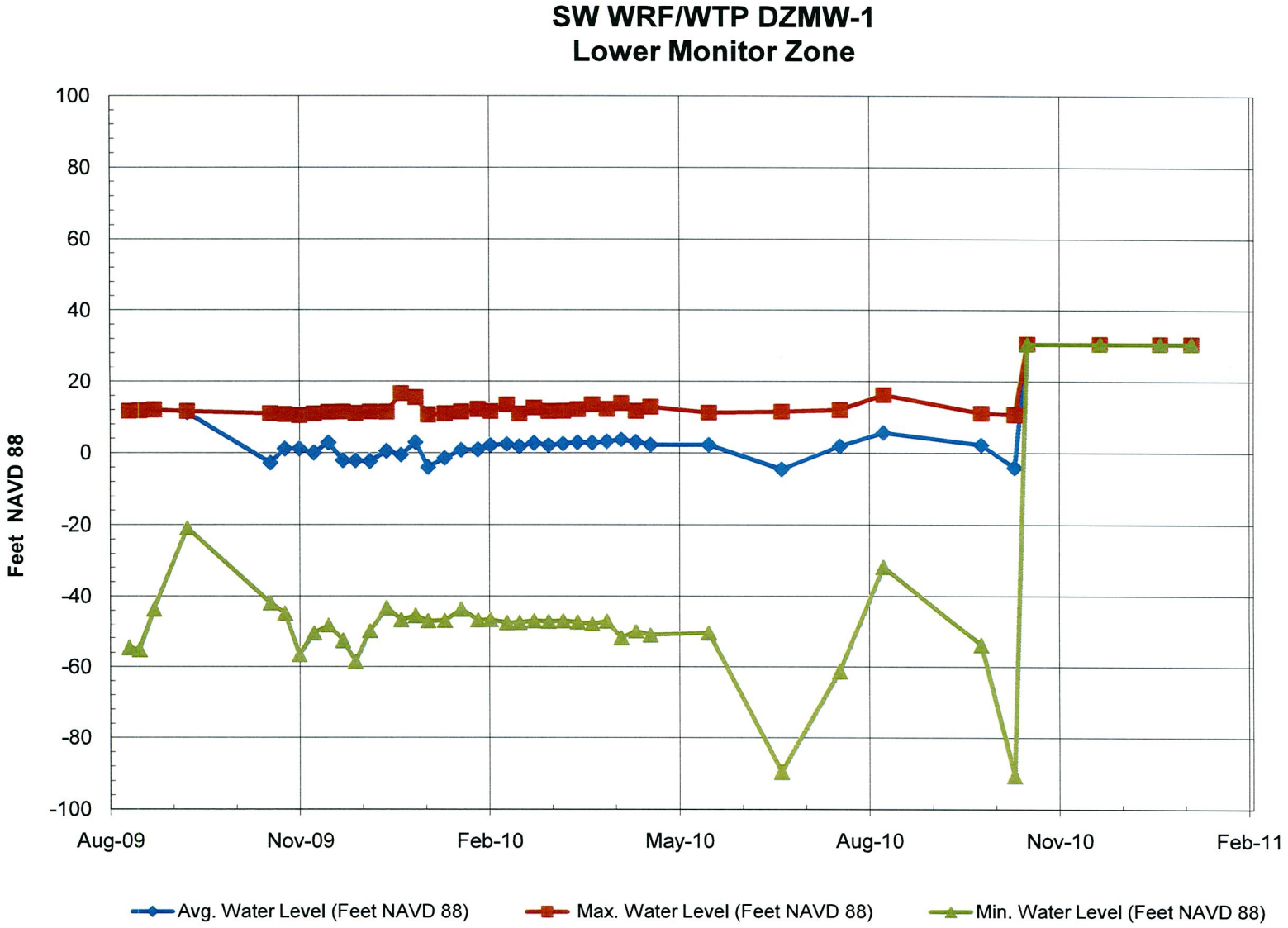
Revised Figure I-4
Upper Monitor Zone
Nutrient Data

CDM



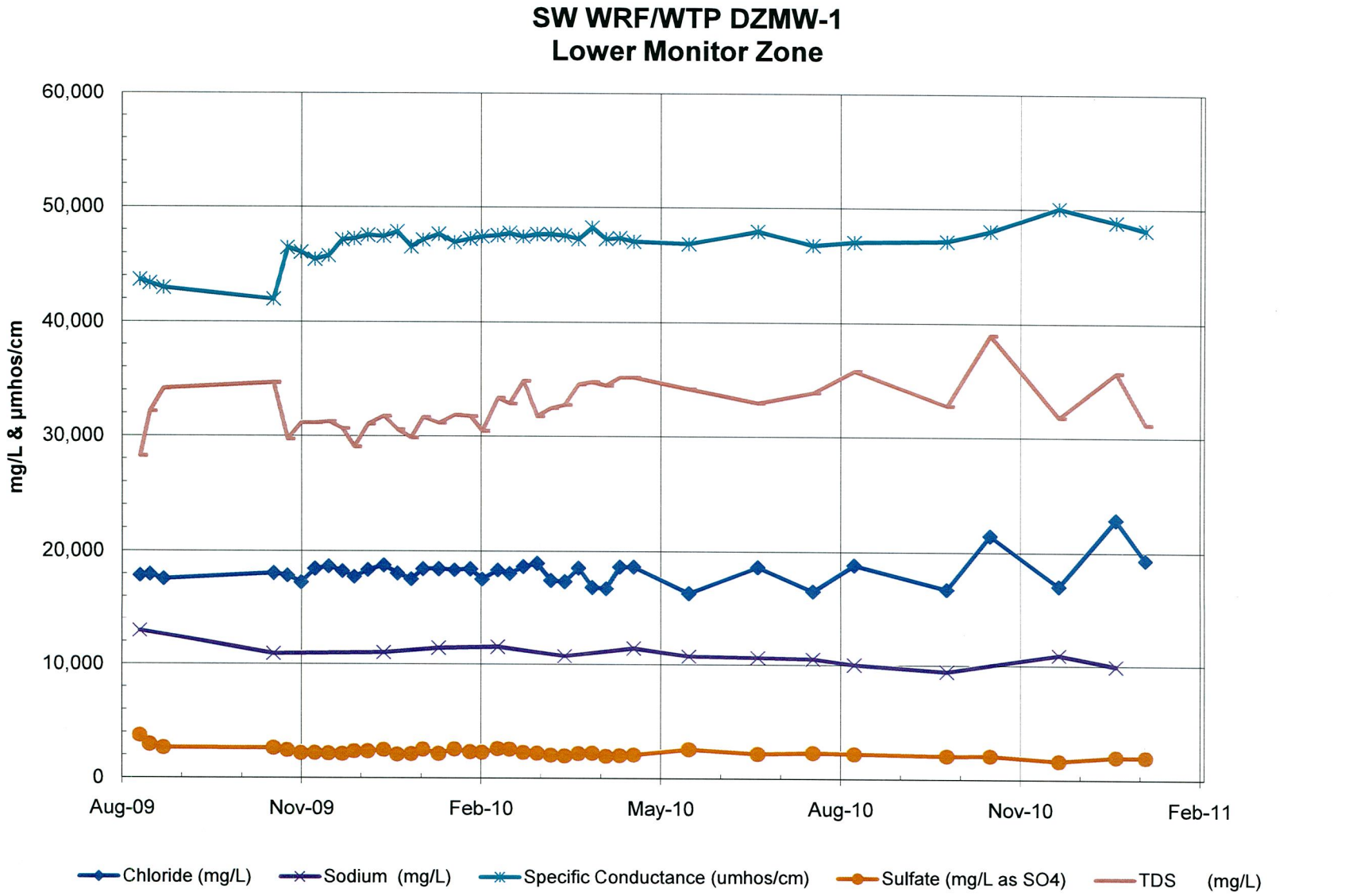
CDM

Revised Figure I-5
Upper Monitor Zone
Other Parameter Data



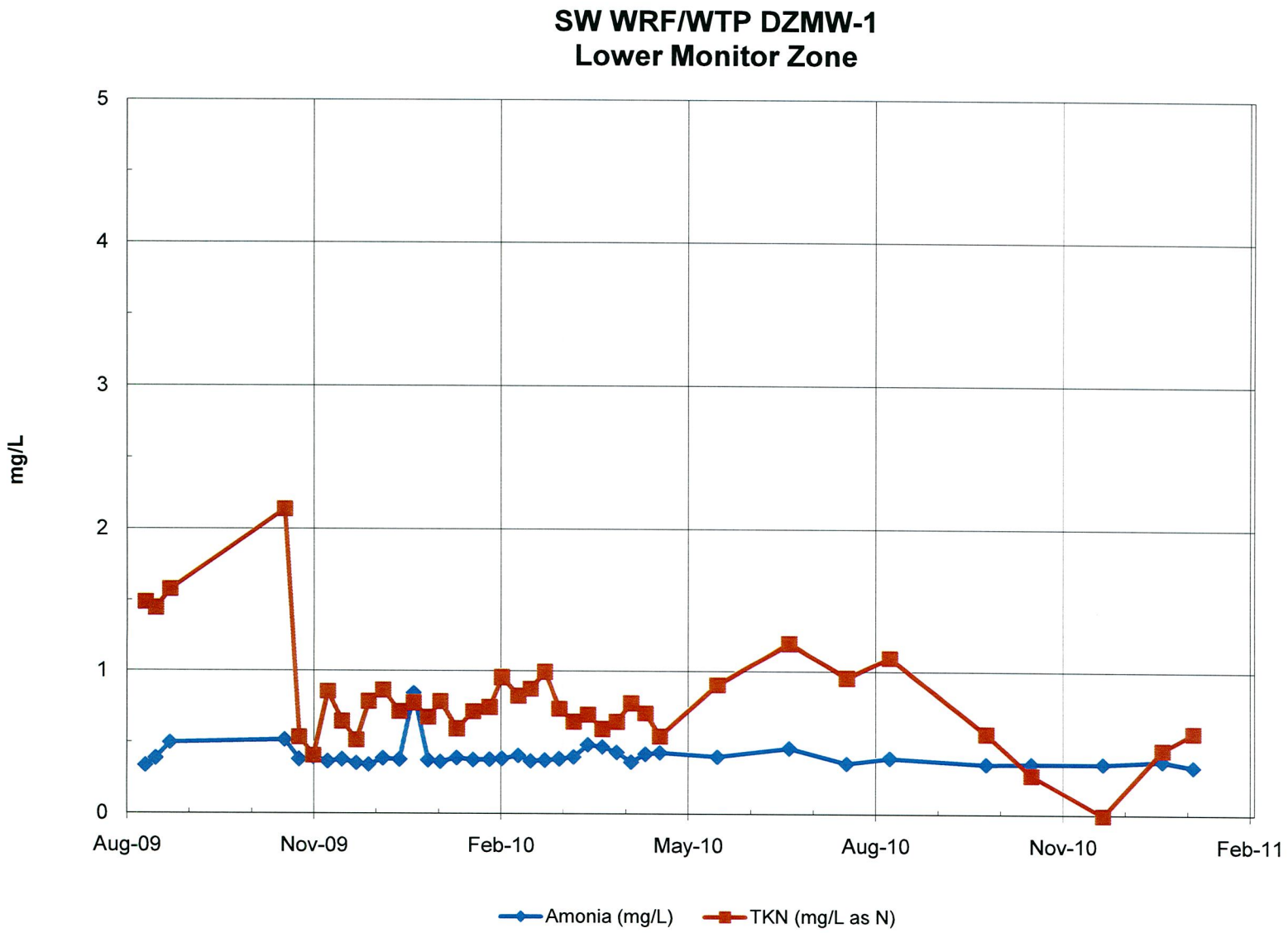
Revised Figure I-6
Lower Monitor Zone
Water Level Data

CDM



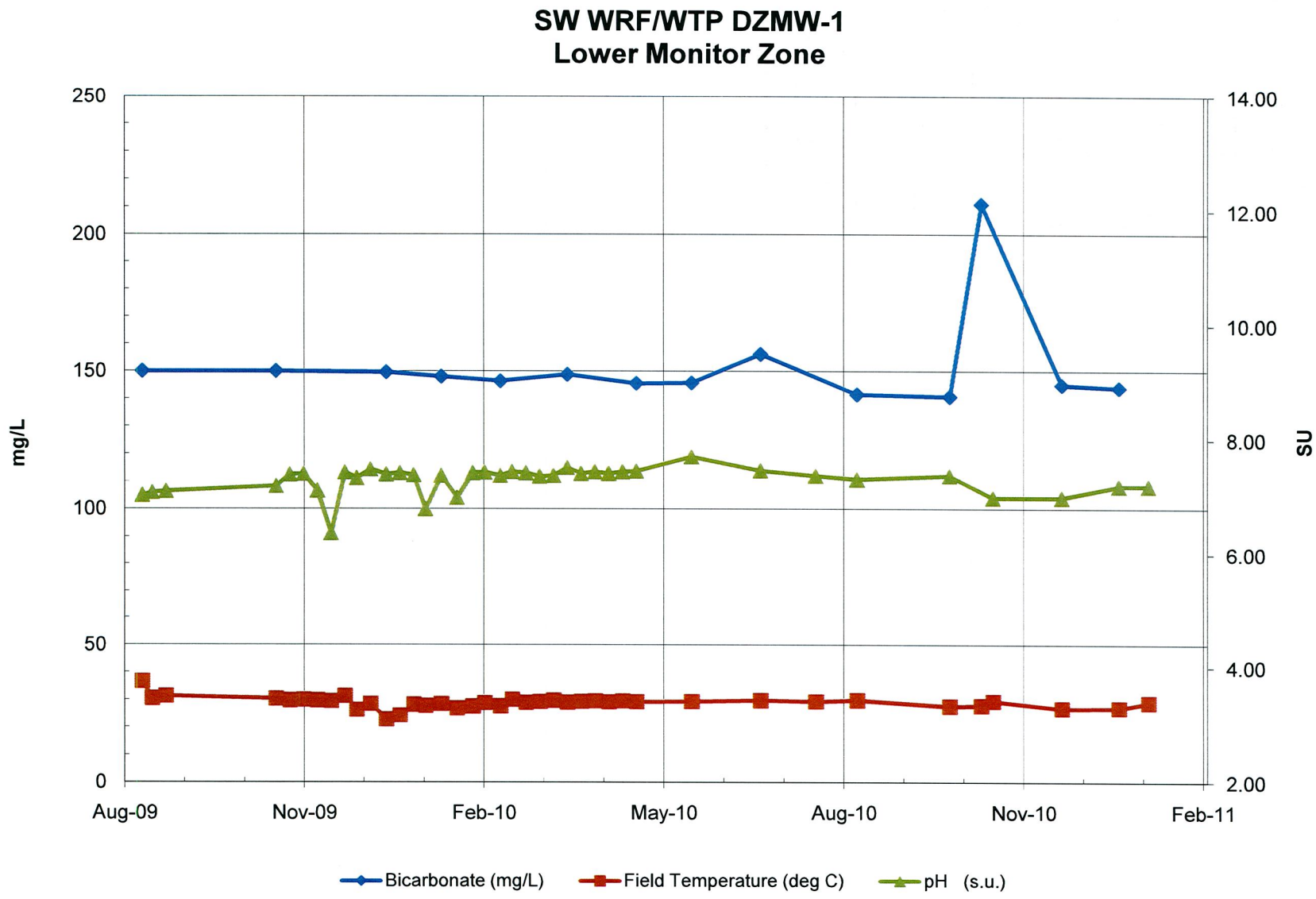
Revised Figure I-7
Lower Monitor Zone
Salinity Data

CDM



CDM

Revised Figure I-9
Lower Monitor Zone
Nutrient Data



CDM

Revised Figure I-10
Lower Monitor Zone
Other Parameter Data

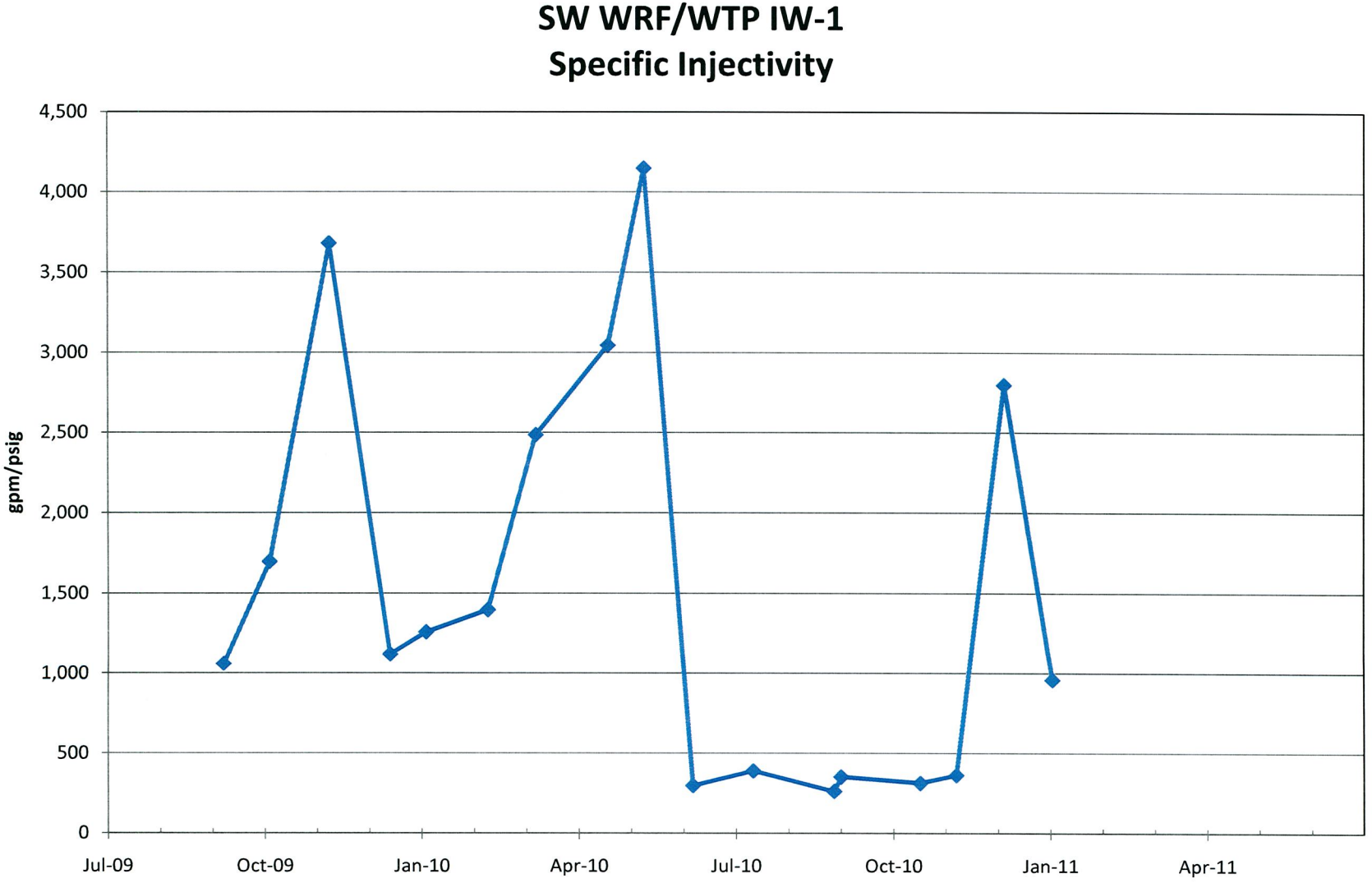


Figure C-5
Injection Well IW-1
Specific Injectivity Data

CDM

THIS INSTRUMENT PREPARED BY:
CDM
12501 World Plaza Lane #51
Fort Myers, FL 33907

On behalf of the City of Cape Coral Utilities (Southwest WRF/WTP)

Strap No. : 04-45-23-C1-00001.0000
Notice of Deep Injection Well IW-1 within 04-45-23

INSTR # 2011000166569, Pages 2
Doc Type AFF, Recorded 07/25/2011 at 04:20 PM,
Charlie Green, Lee County Clerk of Circuit Court
Rec. Fee $18.50
Deputy Clerk JMILLER
#1

State of Florida
County of Lee

My name is Walter Wells and I work for CDM as a project manager. My client is the City of Cape Coral Utilities.

This Notice as to the location of the Deep Injection Well is intended to fulfill the requirements of Rule 62-528.455 (l)(c)(6), Florida Administrative Code as stated in the Florida Department of Protection Permit No. 254598-001-UC.

To the best of my knowledge, the subject Deep Injection well is located as set forth in the attached Exhibit A.

SIGNED, SEALEED AND DELIVERED IN THE PRESENCE OF TWO WITNESSES:

1st Witness Signature

Kelly R. Probst
Printed Name of 1st Witness

2nd Witness Signature

BRAD D COOK
Printed Name of 1st Witness

Signature
Title: Project Manager

Walter D. Wells
Printed Name

STATE OF FLORIDA
COUNTY OF LEE

The foregoing instrument was acknowledged before me on this 25th day of July, 2011, by Walter Wells. He/~~she~~ is personally known to me~~, or who has produced _____ as identification.~~
(type of identification)

LINDA S. KRACZON
Notary Public - State of Florida
My Comm. Expires Mar 28, 2015
Commission # EE 78882
Bonded Through National Notary Assn.

Signature of Notary Public

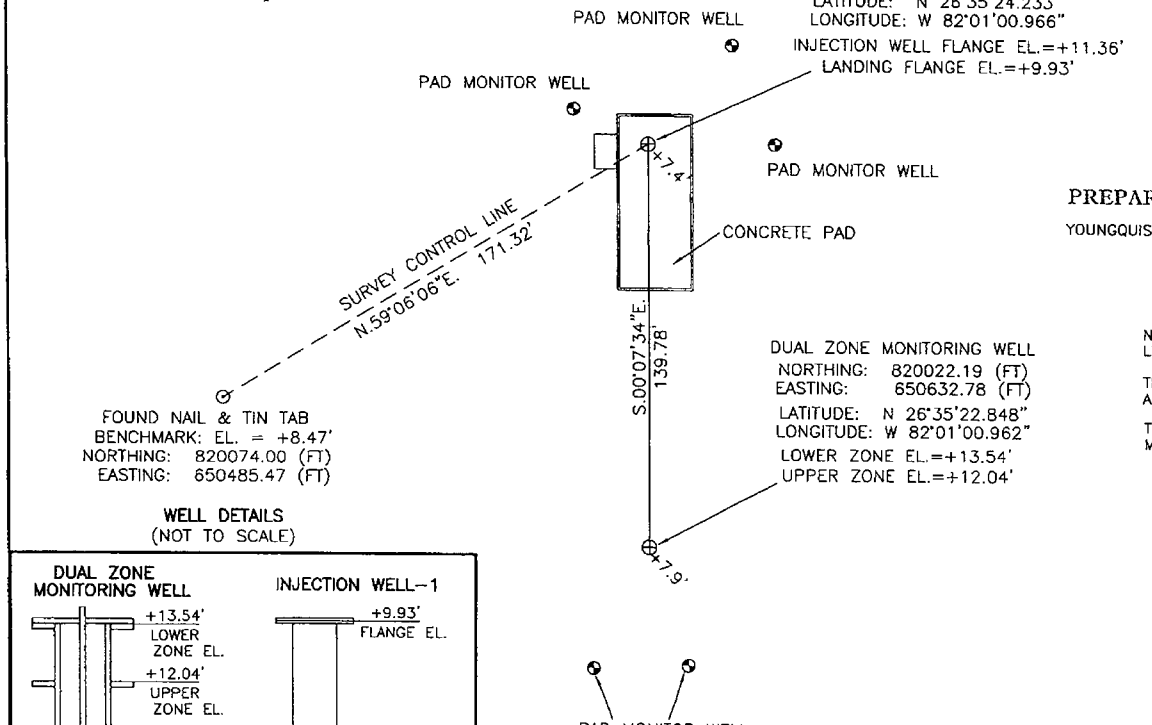
SPECIFIC PURPOSE SURVEY

LYING IN
SECTION 4, TOWNSHIP 45 SOUTH, RANGE 23 EAST
CITY OF CAPE CORAL, LEE COUNTY, FLORIDA

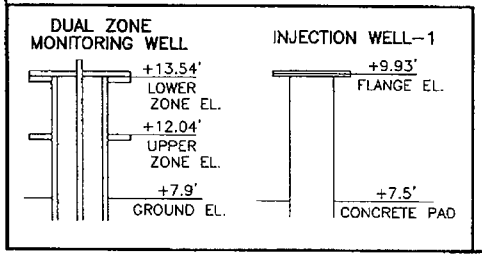
N

LEGEND:

M.W.= MONITOR WELL
EL.= ELEVATION
FT.= FEET
MT.= METERS
CONC.= CONCRETE
+7.5' = GROUND ELEVATION



WELL DETAILS
(NOT TO SCALE)



NOTES:

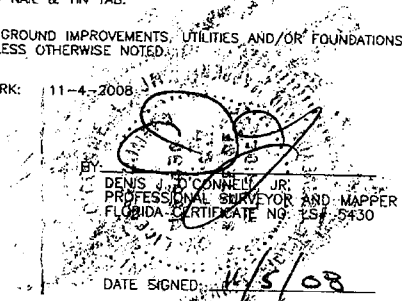
THIS PLAT PREPARED AS A SPECIFIC PURPOSE SURVEY FOR THE PURPOSE OF LOCATING THE WELLS IN SOUTHWEST WATER RECLAMATION FACILITY EXPANSION.

BEARINGS AND COORDINATES SHOWN HEREON ARE STATE PLANE FOR THE FLORIDA WEST ZONE AND BASED ON A CONTROL POINT PROVIDED BY MWH BEING A FOUND NAIL & TIN TAB.

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND REFERENCED TO A CONTROL POINT PROVIDED BY MWH BEING A FOUND NAIL & TIN TAB.

ABOVEGROUND & UNDERGROUND IMPROVEMENTS, UTILITIES AND/OR FOUNDATIONS WERE NOT LOCATED UNLESS OTHERWISE NOTED.

DATE OF LAST FIELD WORK: 11-4-2008



BY: DENIS J. O'CONNELL JR.
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. LS# 5430

DATE SIGNED: 11/5/08

PREPARED FOR:

YOUNGQUIST BROTHERS, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

THIS SPECIFIC PURPOSE SURVEY IS ONLY FOR THE LANDS AS DESCRIBED. IT IS NOT A CERTIFICATE OF TITLE, ZONING, EASEMENTS OR FREEDOM OF ENCUMBRANCES.

THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF AN ABSTRACT OF TITLE AND ALL MATTERS OF TITLE SHOULD BE REFERRED TO AN ATTORNEY AT LAW.

REVISED: 11-5-2008 VERIFY FLANGE ELEVATION DJO
REVISED: 9-16-2008 CONVERT TO NAVD MAC

SOUTHWEST WATER RECLAMATION FACILITY EXPANSION

TITLE: SPECIFIC PURPOSE SURVEY

METRON
SURVEYING & MAPPING, LLC
LAND SURVEYORS-PLANNERS
LB# 7071

10970 S. CLEVELAND AVENUE, SUITE #605
FORT MYERS, FLORIDA 33907
PHONE: (239) 275-8575
FAX: (239) 275-8457
www.metronfl.com

FILE NAME:	FIELD BOOK/PAGE:	PROJECT NO.:	SHEET:
10507SR.DWG	425/75	10507	1 OF 1

SURVEY DATE:	DRAWN BY:	SCALE:	CHECKED BY:	(S-T-R)
9-4-2008	MAC	1"= 50'	DJO	4-45-23

N

Legend

Parcel Boundary

City of Cape Coral Utilities
Southwest WTP/WRF IW-1
FDEP File No. 254598-001-UC

0 250 500 Feet

Figure 2
2010 Aerial Site Plan

CDM

P:\Cape Coral, City of\81828-SW Cape Coral IW-1\1-UIC Operation Permit\4-Section 2\Figures\Fig-2_Site Map.mxd \ 7/11/2011 2:55 PM \ Prepared By: wellswd

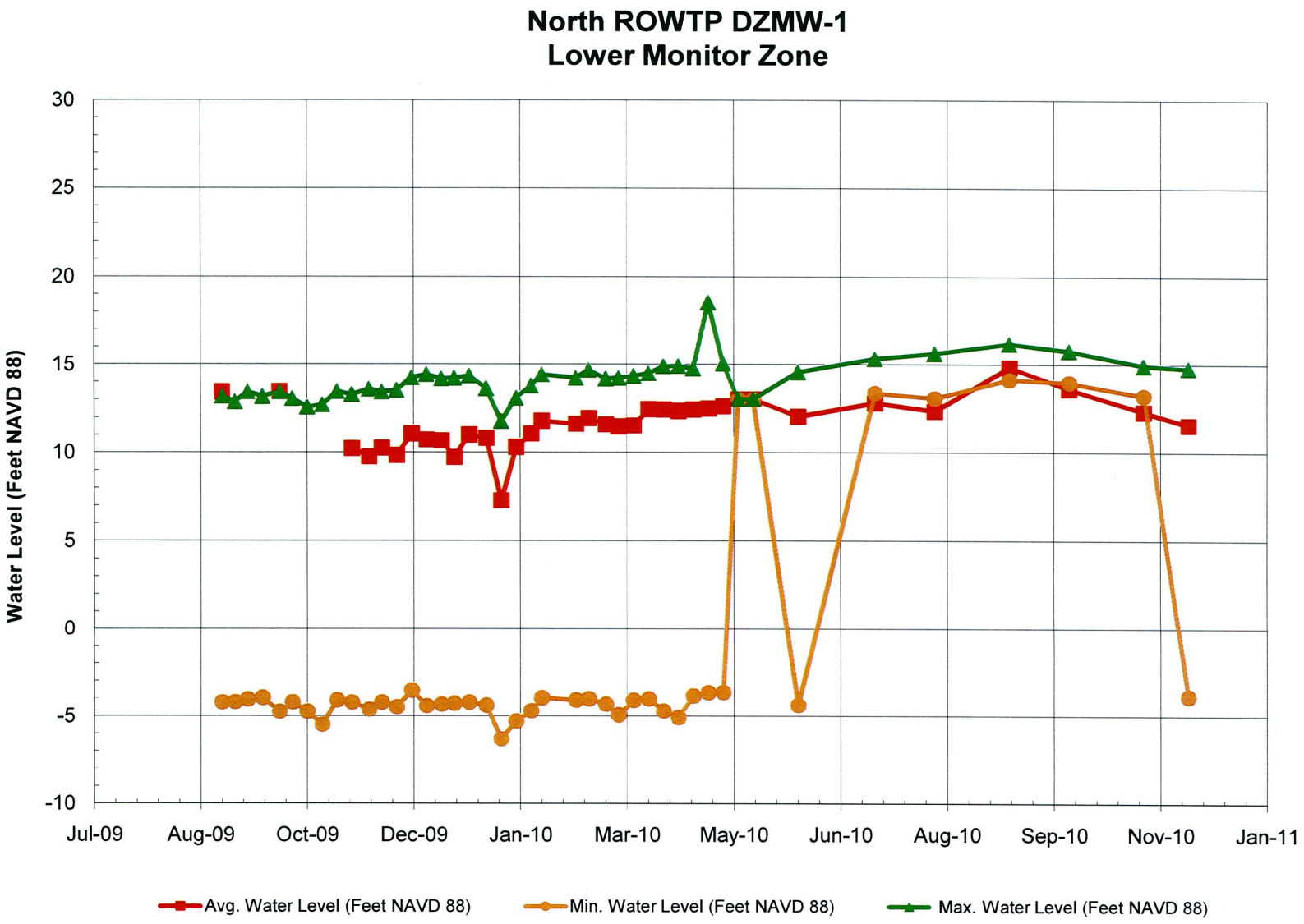
Cape Coral North Reverse Osmosis WTP
Application No. 257996-003-UO/1I

Revised Table I-1 - North ROWTP Lower Zone Water Quality Data

Date	Avg. Water Level (Feet NAVD 88)	Max. Water Level (Feet NAVD 88)	Min. Water Level (Feet NAVD 88)	Ammonia (mg/L)	Bicarbonate (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Field Temperature (°C)	Iron (mg/L)	Magnesium (mg/L)	pH (SU)	Potassium (mg/L)	Sodium (mg/L)	Specific Conductance (µmhos/cm)	Sulfate (mg/L)	TKN (mg/L)	TDS (mg/L)
4-Sep-09	13.5	13.2	-4.2	0.16	116.0	640	18300	31.4	0.08	1000	7.10	440	13000	45200	4860	1.33	35300
10-Sep-09		12.9	-4.2	0.18			17000	30.9			7.12			44700	3800	1.08	33900
16-Sep-09		13.5	-4.0	0.20			19200	31.5			7.03			44400	3080	0.97	36700
23-Sep-09		13.2	-3.9	0.17			18600	31.6			7.28			44800	2920	1.32	37800
1-Oct-09	13.5	13.5	-4.7	0.17	137.0	130	19000	30.5	0.50	100	7.00	21	490	44900	3140	1.25	35400
7-Oct-09		13.1	-4.2	0.47			18100	31.6			7.20			44400	3580	1.30	37100
14-Oct-09		12.6	-4.7	0.24			18300	31.4			7.17			44400	3640	1.27	35000
21-Oct-09		12.7	-5.4	0.26			19100	30.0			7.11			44500	2990	1.32	33600
28-Oct-09		13.5	-4.1	0.26			19300	31.1			7.08			43900	3420	1.17	34300
4-Nov-09	10.3	13.3	-4.2	0.25			18400	30.3			7.08			44100	3060	0.97	35800
12-Nov-09	9.8	13.6	-4.6	0.17	118.1	756	16600	29.5	0.04	1230	7.37	491	11500	48000	2610	0.19	33100
18-Nov-09	10.3	13.5	-4.2	0.20			18700	29.5			7.69			47300	3020	0.10	32700
25-Nov-09	9.9	13.6	-4.5	0.14			17700	30.0			7.17			48100	2970	0.22	30784
2-Dec-09	11.1	14.3	-3.5	0.13	121.1	553	19400	30.3	0.04	764	7.00	468	8970	47800	2790	0.16	32800
9-Dec-09	10.8	14.4	-4.4	0.14			19300	30.4			7.30			47200	2650	0.43	30300
16-Dec-09	10.7	14.2	-4.3	0.12			19000	30.0			7.40			49400	2990	0.47	33300
22-Dec-09	9.8	14.2	-4.2	0.14			18900	27.4			7.40			49100	3000	0.82	32800
29-Dec-09	11.0	14.4	-4.2	0.15			19000	29.0			7.40			49800	3230	0.39	30800
6-Jan-10	10.8	13.6	-4.3	0.14	120.6	825	19200	23.3	0.04	1110	7.46	451	11400	49100	2560	0.80	32500
13-Jan-10	7.3	11.8	-6.3	0.12			18500	28.4			7.40			49600	2580	0.51	33100
20-Jan-10	10.3	13.1	-5.2	0.13			18200	28.2			7.38			48500	2970	0.45	29900
27-Jan-10	11.1	13.8	-4.7	0.14			18800	26.8			7.44			48900	2660	0.30	31900
1-Feb-10	11.8	14.4	-3.9	0.14	119.3	881	19400	29.3	0.04	1300	7.40	414	12200	49600	2930	0.41	33200
17-Feb-10	11.6	14.3	-4.0	0.13			18800	26.9			7.39			48800	3010	0.53	32900
23-Feb-10	12.0	14.7	-4.0	0.14			19400	30.1			7.40			49300	2710	0.59	32000
3-Mar-10	11.6	14.2	-4.3	0.15			18600	29.2			7.38			49100	2600	0.41	35500
9-Mar-10	11.5	14.3	-4.9	0.16	117.3	708	18100	30.1	0.04	1140	7.40	394	12200	48300	3100	0.67	35000
16-Mar-10	11.6	14.4	-4.1	0.13			19200	30.3			7.43			49000	2810	0.68	35200
23-Mar-10	12.5	14.5	-4.0	0.13			17700	30.2			7.36			48600	2870	0.44	34300
30-Mar-10	12.5	14.9	-4.7	0.15			18900	30.0			7.40			48900	2670	0.51	34700
6-Apr-10	12.4	14.9	-5.0	0.17	118.1	719	19100	30.6	0.04	1160	7.50	452	12100	48500	2540	0.47	36400
13-Apr-10	12.5	14.8	-3.8	0.17			19300	29.6			7.44			48700	2560	0.38	33400
20-Apr-10	12.5	18.6	-3.6	0.17			17500	30.9			7.45			49800	2530	0.33	34000
27-Apr-10	12.7	15.1	-3.6	0.15			19600	30.6			7.39			49300	2470	0.56	34600
4-May-10	13.1	13.1	13.1	0.16			17800	30.9			7.43			49000	2960	0.56	33500
11-May-10	13.1	13.1	13.1	0.14	115.8	743	17700	29.7	0.02	1130	7.44	467	10800	48300	2880	0.39	34700
1-Jun-10	12.1	14.6	-4.3	0.13	116.1	736	17200	29.7	0.03	1120	7.44	416	10100	47400	2570	0.49	35500
7-Jul-10	12.8	15.3	13.4	0.17	117.6	702	17300	29.3	0.04	1080	7.47	400	10400	48800	2650	1.10	33200
4-Aug-10	12.4	15.6	13.1	0.18	115.3	790	16800	29.5	0.04	1190	7.45	359	10700	49200	2990	0.72	34700
8-Sep-10	14.9	16.2	14.2	0.17	115.2	825	19000	29.3	0.03	1160	7.41	485	11300	48500	2340	0.43	34500
6-Oct-10	13.6	15.8	14.0	0.16	115.2	781	18900	28.8	0.07	1200	7.44	442	11300	48500	3150	1.00	33900
10-Nov-10	12.3	15.0	13.2	0.16	114.0	670	21100	30.0	0.64	1100	7.20	400	9800	50500	2470	0.30	38900
1-Dec-10	11.6	14.8	-3.8	0.16	115.0	620	20600	30.2	0.03	1060	7.10	380	10400	50500	2440	0.00	39700

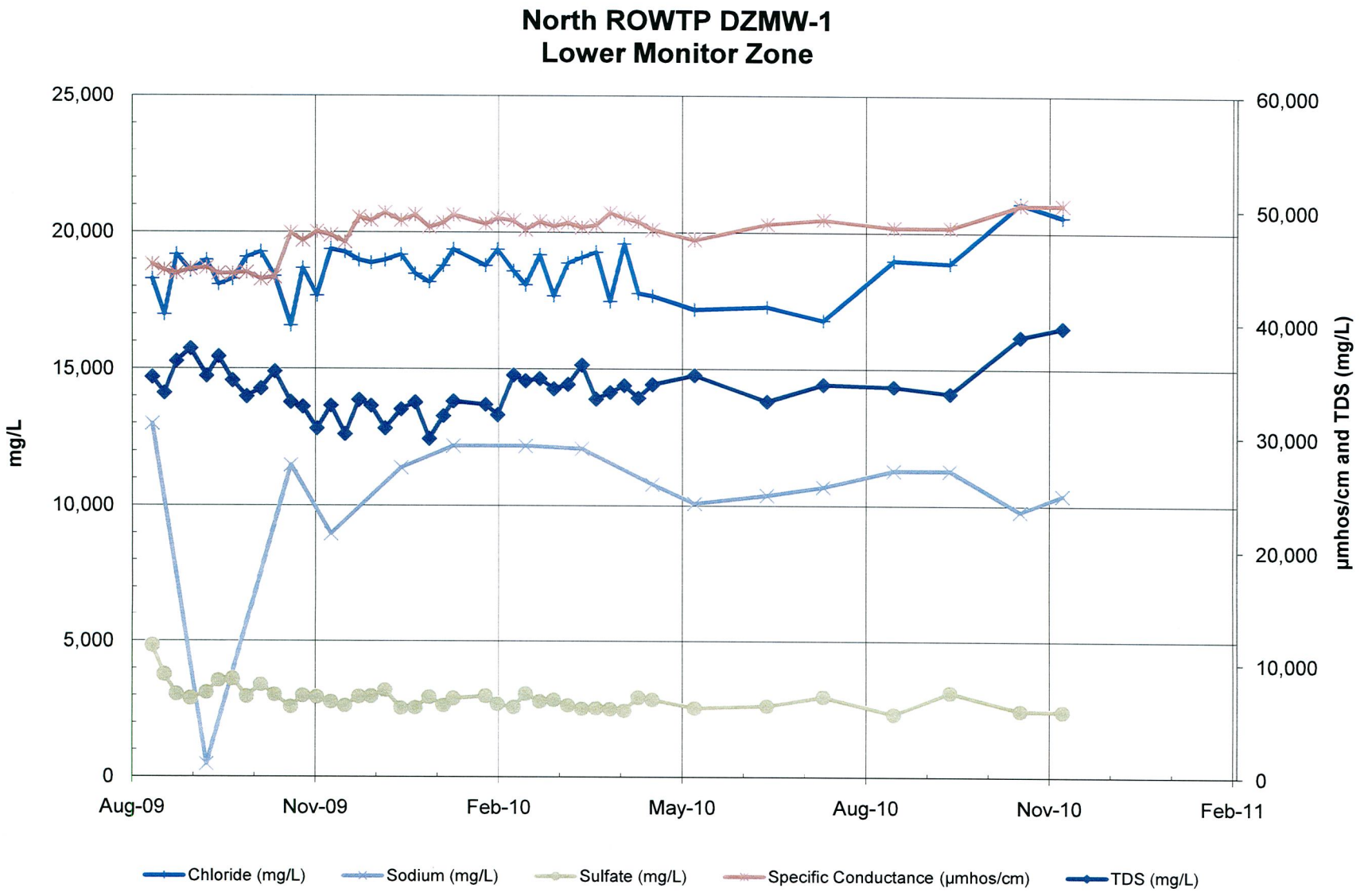
Revised Table I-2 - North ROWTP DZMW-1 Upper Zone Water Quality Data

Date	Avg. Water Level (Feet NAVD 88)	Max. Water Level (Feet NAVD 88)	Min. Water Level (Feet NAVD 88)	Maximum Monthly Wellhead Pressure (psi)	Minimum Monthly Wellhead Pressure (psi)	Average Monthly Wellhead Pressure (psi)	Ammonia (mg/L)	Bicarbonate (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Field Temperature (°C)	Iron (mg/L)	Magnesium (mg/L)	pH (SU)	Potassium (mg/L)	Sodium (mg/L)	Specific Conductance	Sulfate (mg/L)	TKN (mg/L)	TDS (mg/L)
4-Sep-09	40.59	40.39	39.73	40.6	39.7	40.1	0.340	131.0	120	899	29.6	1.000	92	7.46	19.0	490	3110	415	0.69	1810
10-Sep-09		40.33	40.00				0.340			1330	29.8			7.32			3060	745	0.57	1820
16-Sep-09		40.44	40.00				0.350			950	29.8			7.52			3170	301	0.51	1940
23-Sep-09		40.59	40.06				0.330			976	28.4			7.59			3220	321	0.60	2100
1-Oct-09	40.56	40.55	39.88	40.6	38.0	39.4	0.330	122.0	670	1080	28.8	0.069	1100	7.60	440.0	1100	3330	320	0.90	1940
7-Oct-09		40.13	39.80				0.260			982	29.8			7.64			3310	364	0.92	2120
14-Oct-09		39.79	39.27				0.420			997	28.5			7.53			3270	359	0.96	2250
21-Oct-09		39.40	38.70				0.400			895	28.7			7.51			3380	297	0.80	1880
28-Oct-09		38.85	38.13				0.480			1530	29.1			7.36			4650	346	1.25	2840
4-Nov-09	37.48	38.27	36.72	38.3	32.1	34.8	0.530	135.9	341	2510	29.0	1.080	360	7.46	72.8	2820	7160	381	1.18	5140
12-Nov-09	34.99	36.95	33.68				0.490			4430	27.5			7.65			14000	581	0.56	8680
18-Nov-09	33.13	33.61	32.55				0.436			4970	28.0			7.60			15100	674	0.35	9210
25-Nov-09	32.73	33.17	32.21				0.466			5800	28.7			7.76			17000	779	0.48	10880
2-Dec-09	32.19	32.92	31.26	32.9	26.6	32.8	0.442	134.7	415	6760	28.7	1.480	446	7.20	114.0	3890	18700	902	0.50	11300
9-Dec-09	32.28	33.95	30.23				0.443			6310	29.2			7.40			17500	846	0.75	10200
16-Dec-09	32.40	37.25	28.22				0.437			6280	29.1			7.65			18000	800	0.54	10400
22-Dec-09	32.35	37.24	28.18				0.456			6170	24.3			7.63			17600	808	0.98	10700
29-Dec-09	31.75	34.79	26.58				0.443			7160	27.0			7.66			20000	920	0.52	11200
6-Jan-10	30.86	36.51	24.87				0.447	135.1	363	6870	25.0	1.640	446	7.68	108.0	3920	19500	906	0.67	12800
13-Jan-10	27.96	32.21	25.34				0.488			7810	28.1			7.61			22200	1040	0.54	13200
20-Jan-10	24.50	29.72	20.07				0.362			11700	28.3			7.56			32300	1660	0.44	13400
27-Jan-10	22.73	25.86	19.60				0.369			11700	25.4			7.61			34200	1970	0.37	21300
3-Feb-10	26.48	26.48	26.48				0.429	134.4	460	10400	27.0	1.650	729	7.61	205.0	6320	29100	1580	0.64	18200
17-Feb-10	26.48	26.48	26.48				0.444			8510	27.6			7.62			24800	1280	0.51	15100
23-Feb-10	26.48	26.48	26.48				0.484			8390	28.6			7.62			23800	1100	0.54	13700
3-Mar-10	29.58	34.30	26.45				0.526			7640	28.3			7.62			22600	1120	0.87	13100
9-Mar-10	29.43	34.04	26.89				0.525	133.7	444	7400	28.7	1.610	550	7.41	154.0	4600	22100	1040	0.78	13100
16-Mar-10	29.30	33.13	28.09				0.466			8290	28.6			7.66			23200	1180	0.80	14700
23-Mar-10	28.36	32.62	27.06				0.465			8280	28.6			7.56			24100	1150	0.69	14400
30-Mar-10	28.80	30.90	26.19				0.499			9200	28.6			7.60			25400	1290	0.50	15000
6-Apr-10	27.63	31.40	24.06	28.4	16.2	27.5	0.590	135.8	538	9990	28.9	2.590	692	7.66	211.0	6230	27100	1290	0.66	17200
13-Apr-10	26.41	30.89	24.37				0.550			10700	28.2			7.64			29300	1500	0.71	17100
20-Apr-10	25.76	28.26	16.16				0.520			9950	29.1			7.63			30900	1560	0.56	18900
27-Apr-10	25.97	27.38	16.55				0.440			9960	29.1			7.61			30200	1500	0.45	18200
4-May-10	25.27	28.43	16.93	25.7	16.9	24.2	0.496			10700	29.1			7.60			31400	1820	0.59	20500
11-May-10	23.65	27.75	21.18				0.464	135.8	641	12300	29.3	2.472	805	7.61	242.0	7050	32800	1810	0.93	20600
1-Jun-10	23.01	27.27	14.07	23.1	14.1	23.3	0.454	140.5	669	12400	27.8	3.265	842	7.61	278.0	7170	33800	1940	0.47	22000
7-Jul-10	22.98	27.84	14.58	23.5	14.6	23.1	0.549	147.5	668	12200	28.5	3.327	872	7.62	285.0	7530	35400	2000	1.10	21900
4-Aug-10	22.81	26.67	13.27	22.9	13.3	23.1	0.560	146.4	746	11400	28.4	3.417	934	7.62	302.0	7190	36200	2200	0.88	23900
8-Sep-10	23.31	28.53	20.43	23.7	20.4	23.8	0.575	150.9	14300	11800	29.1	4.590	16700	7.56	294.0	0.3	35400	2070	0.69	23400
6-Oct-10	23.30	29.26	20.85	23.1	20.9	23.2	0.555	149.1	760	11200	28.8	4.449	992	7.52	277.0	7760	35100	2240	0.72	22200
10-Nov-10	22.37	29.13	14.17	22.2	14.2	22.6	0.530	149.0	605	13500	28.6	3.330	840	7.20	247.0	6720	36800	1970	0.57	24900
1-Dec-10	22.25	26.15	11.74	21.9	11.7	21.5	0.550	153.0	545	13300	28.3	3.130	785	7.20	256.0	6900	36700	1910	0.52	26700



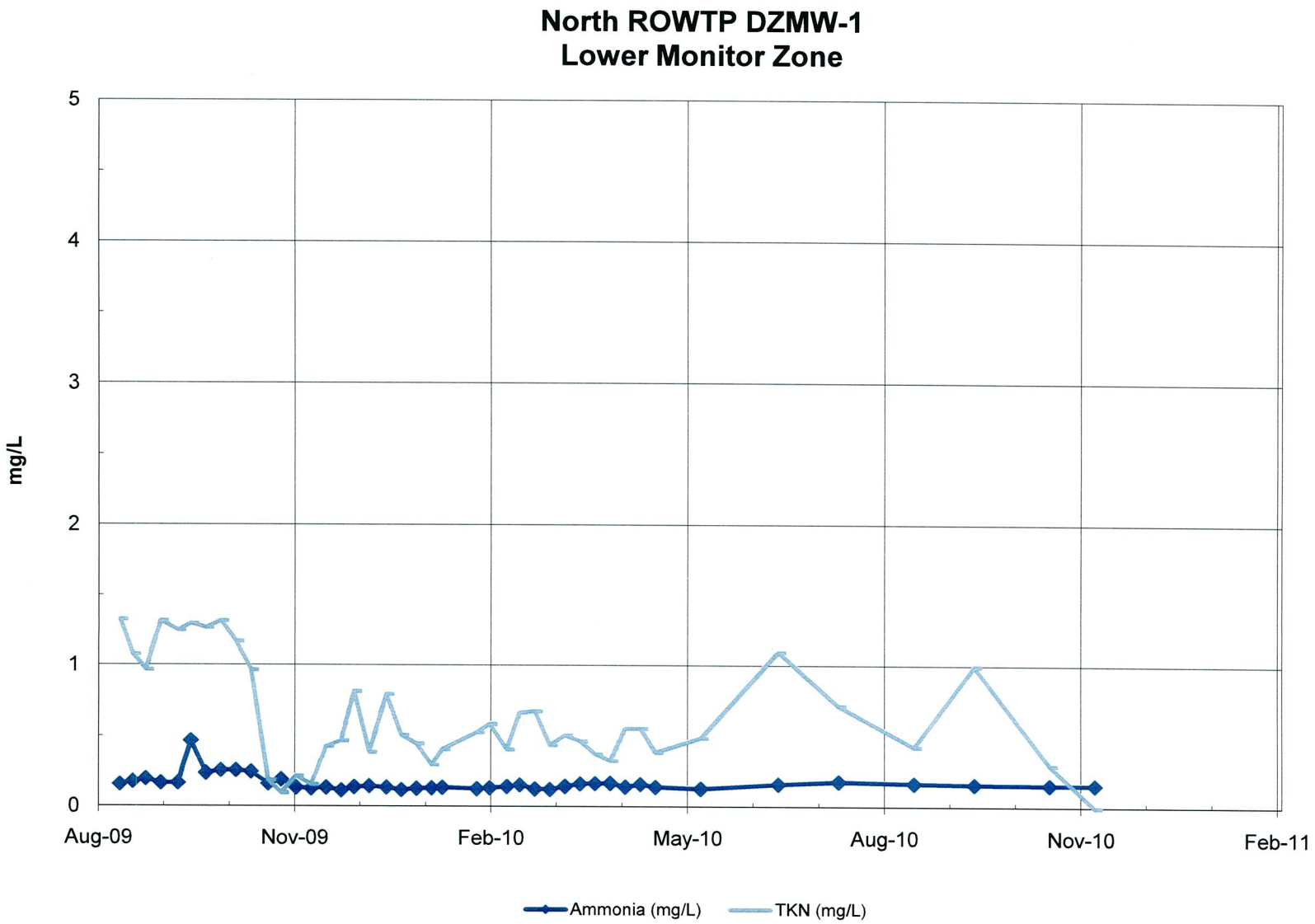
Revised Figure I-1
Lower Monitor Zone
Water Level Data

CDM



Revised Figure I-2
Lower Monitor Zone
Salinity Data

CDM



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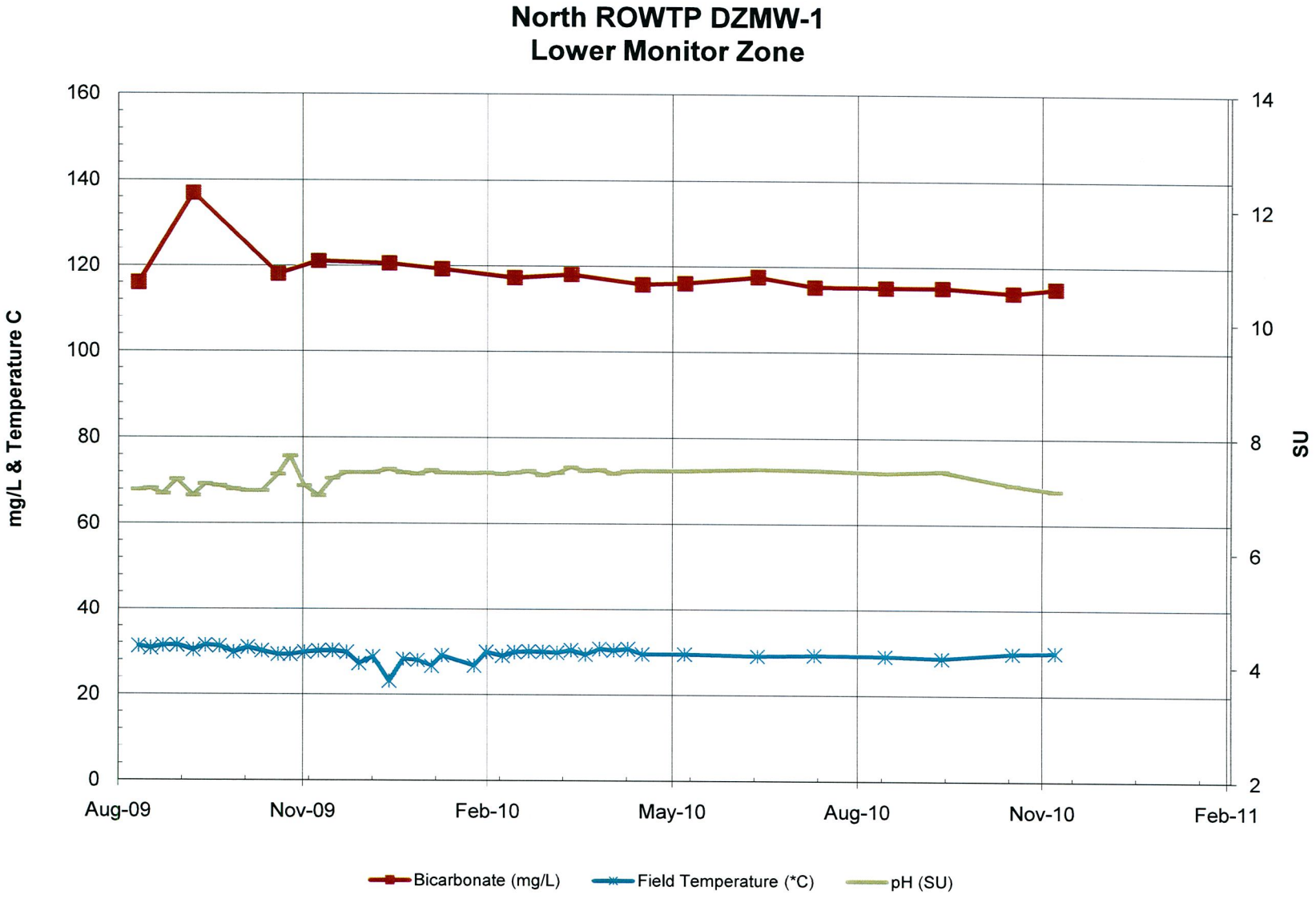
Revised Figure I-4
Lower Monitor Zone
Nutrient Data



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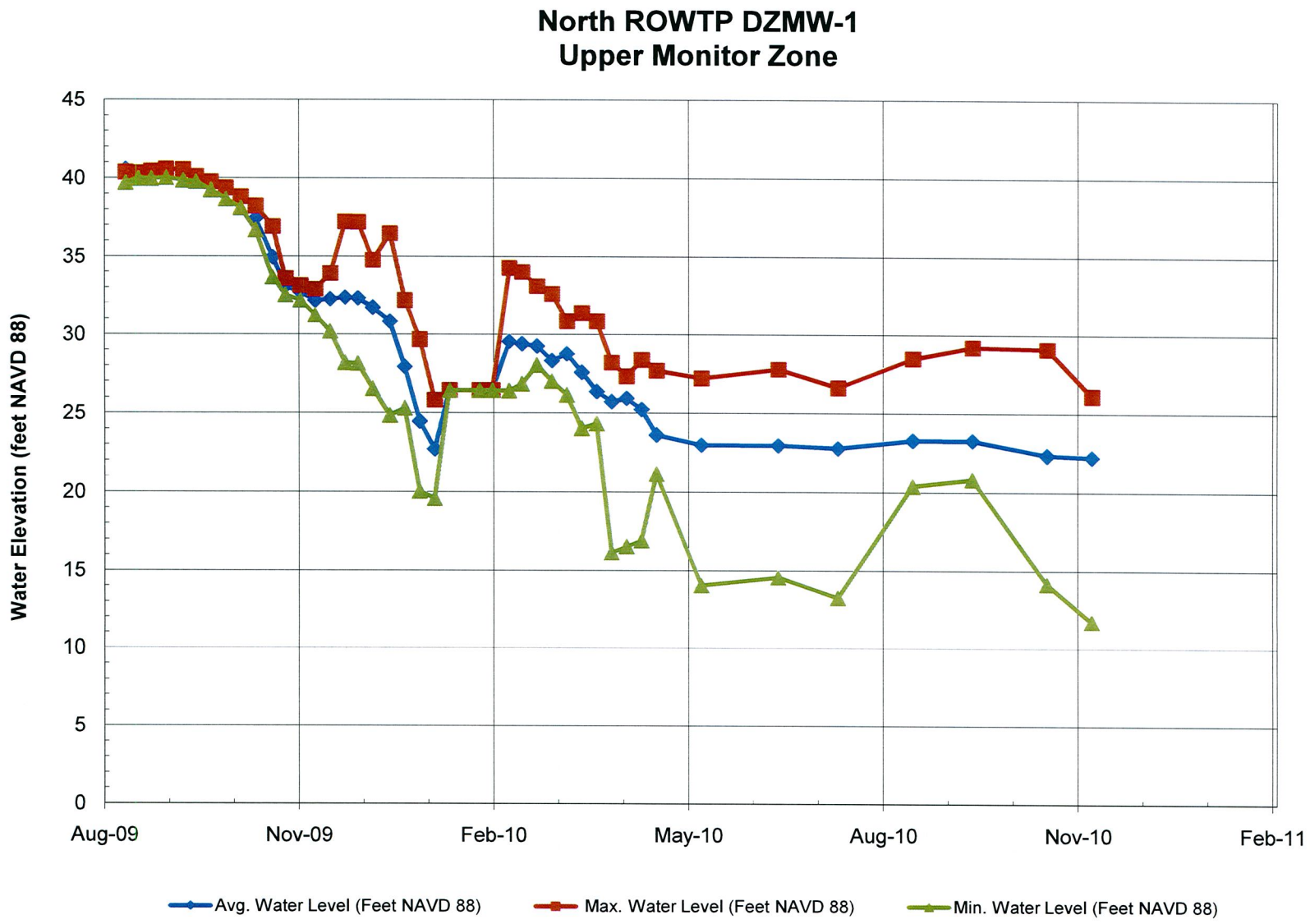
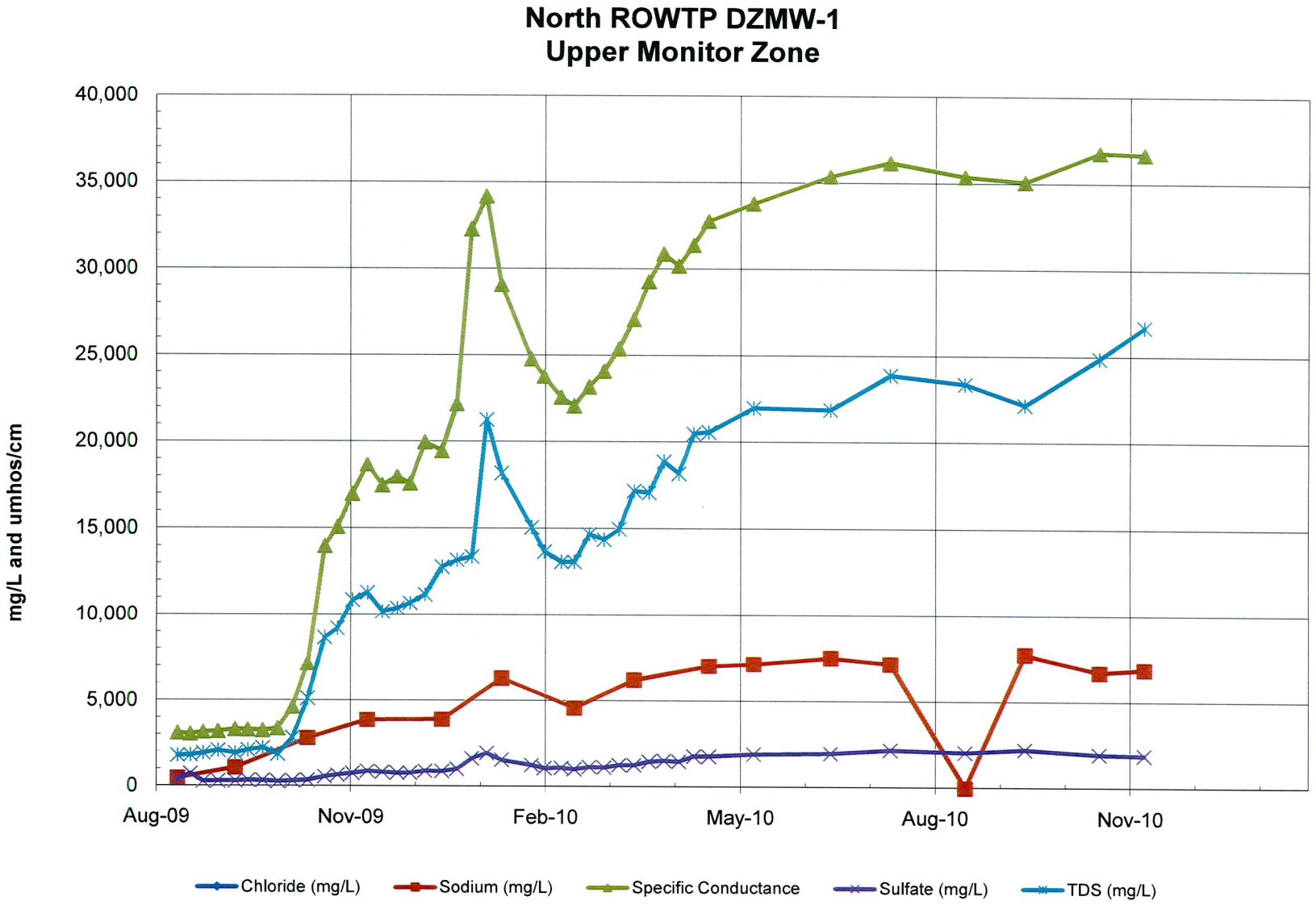
Revised Figure I-5
Lower Monitor Zone
Other Parameter Data



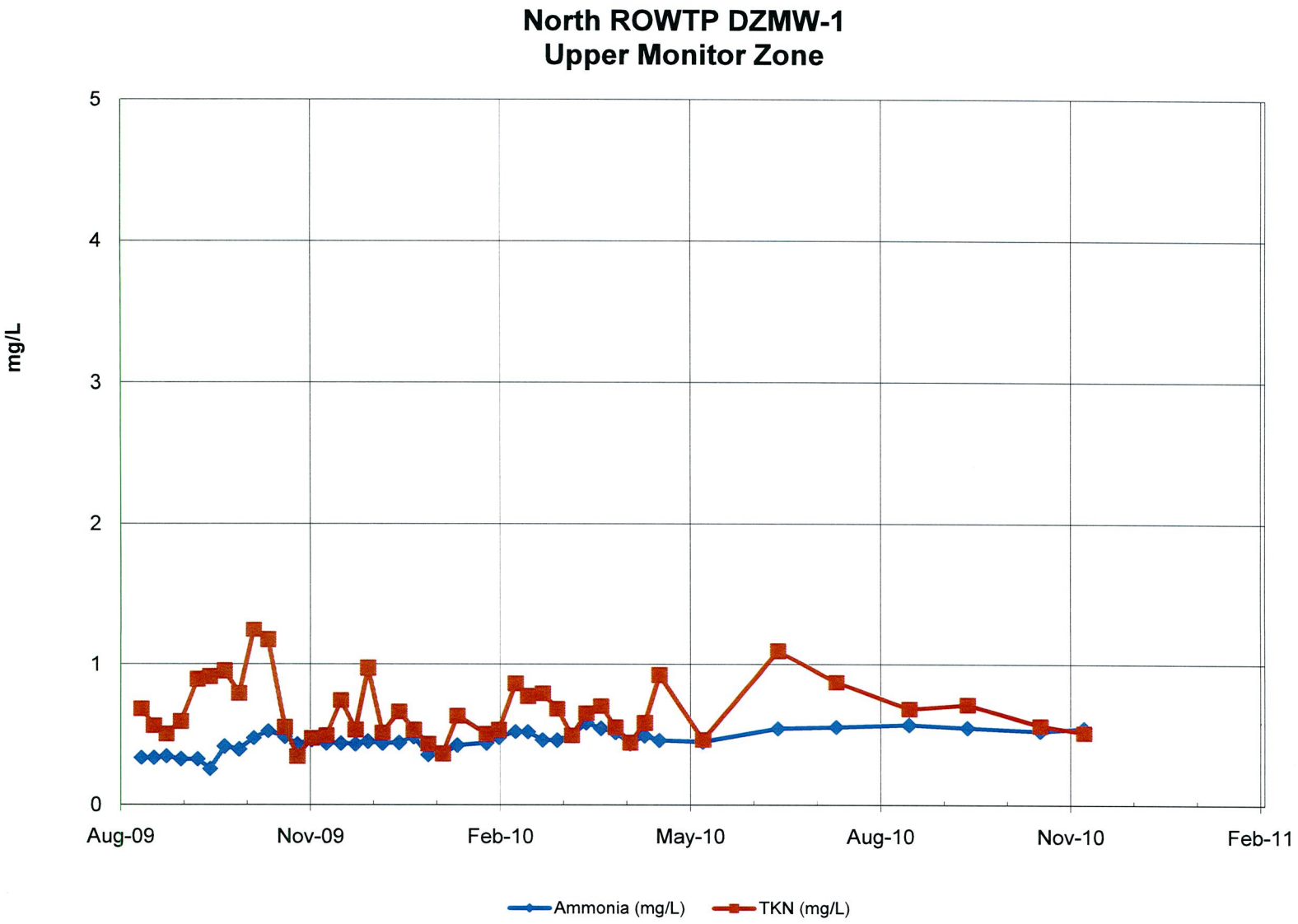
Revised Figure I-6
Upper Monitor Zone
Water Level Data

CDM



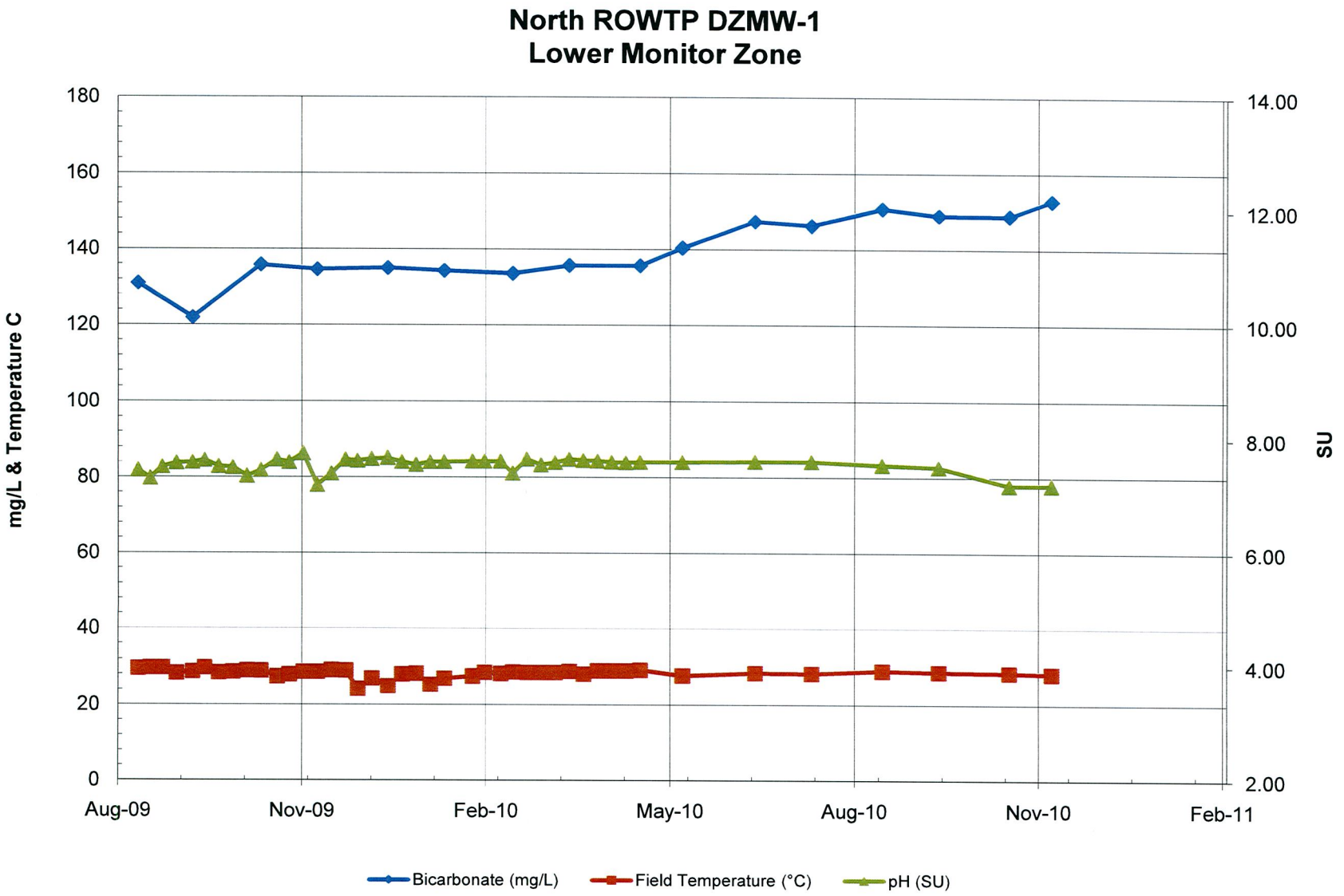
CDM

Revised Figure I-7
Upper Monitor Zone
Salinity Data



CDM

Revised Figure I-9
Upper Monitor Zone
Nutrient Data



CDM

Revised Figure I-10
Lower Monitor Zone
Other Parameter Data

Table C-4 - Specific Injectivity Data for NROWTP IW-1

Month	Specific Injectivity (gpm/psig)
9/19/2009	795
10/7/2009	667
11/13/2009	1734
12/2/2009	793
1/6/2010	3858
2/4/2010	1322.5
3/25/2010	1159.33
4/22/2010	780
5/26/2010	1077
6/29/2010	2156
7/28/2010	1467
8/31/2010	808
9/3/2010	582
10/25/2010	1182
11/30/2010	826
12/29/2010	798
1/31/2011	528

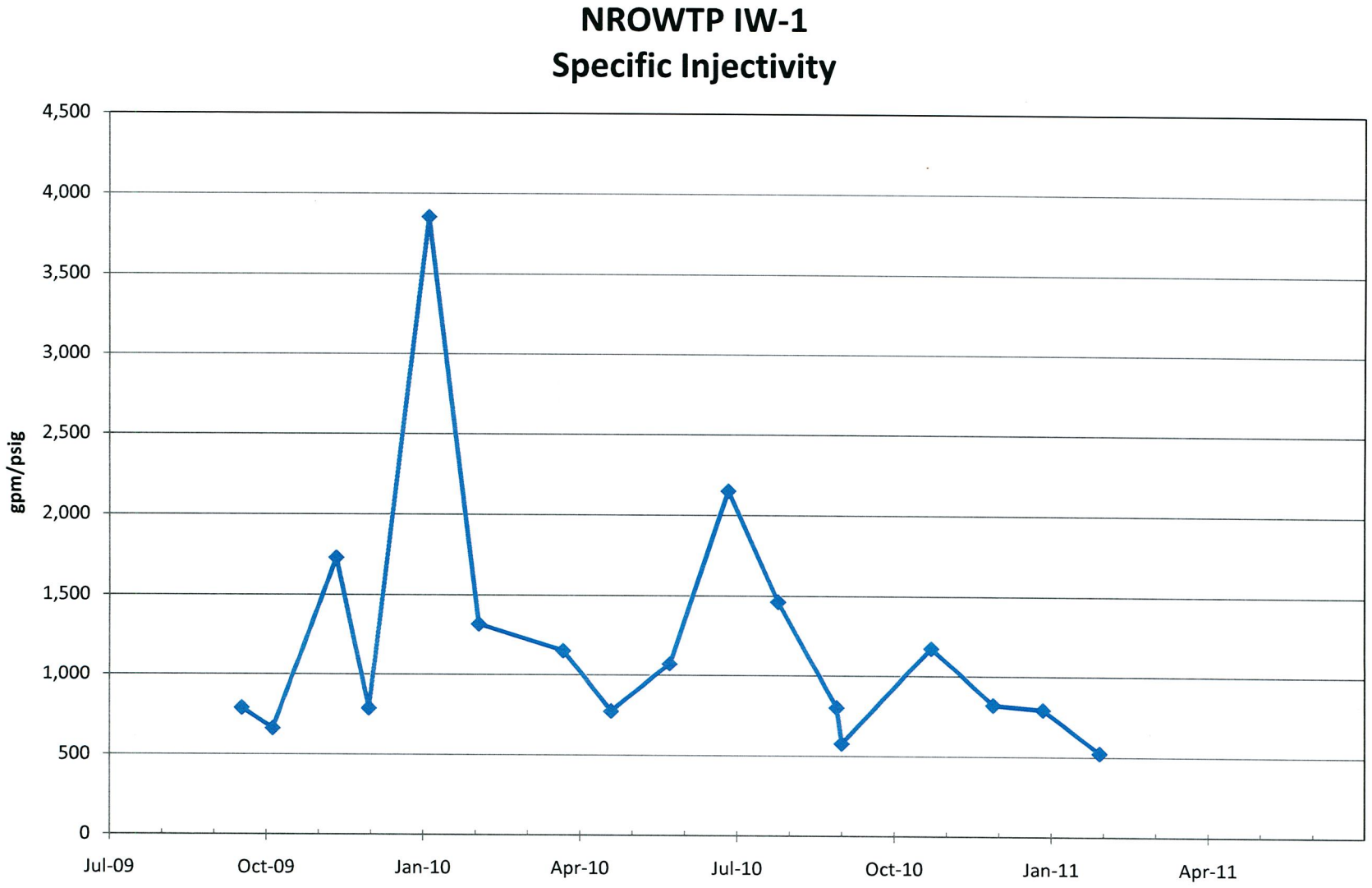


Figure C-5
Injection Well IW-1
Specific Injectivity Data

CDM

THIS INSTRUMENT PREPARED BY:
CDM
12501 World Plaza Lane #51
Fort Myers, FL 33907

On behalf of the City of Cape Coral Utilities (NROWTP)

INSTR # 2011000166571, Pages 2
Doc Type AFF, Recorded 07/25/2011 at 04:20 PM,
Charlie Green, Lee County Clerk of Circuit Court
Rec. Fee $18.50
Deputy Clerk JMILLER
#3

Strap No. : 34-43-23-C1-02969.0000
Notice of Deep Injection Well IW-1 within 34-43-23

State of Florida
County of Lee

My name is Walter Wells and I work for CDM as a project manager. My client is the City of Cape Coral Utilities.

This Notice as to the location of the Deep Injection Well is intended to fulfill the requirements of Rule 62-528.455 (l)(c)(6), Florida Administrative Code as stated in the Florida Department of Protection Permit No. 257996-001 & 002-UC.

To the best of my knowledge, the subject Deep Injection well is located as set forth in the attached Exhibit A.

SIGNED, SEALEED AND DELIVERED IN THE PRESENCE OF TWO WITNESSES:

1st Witness Signature

Kelly R. Probst
Printed Name of 1st Witness

Brad D Cook
2nd Witness Signature

BRAD D COOK
Printed Name of 1st Witness

Signature
Title: Project Manager

Walter D. Wells
Printed Name

STATE OF FLORIDA
COUNTY OF LEE

The foregoing instrument was acknowledged before me on this 25th day of July, 2011, by Walter Wells. He/~~she~~ is personally known to me~~, or who has produced _____ as identification.~~
(type of identification)

LINDA S. KRACZON
Notary Public - State of Florida
My Comm. Expires Mar 28, 2015
Commission # EE 78882
Bonded Through National Notary Assn.

Linda S Kracz
Signature of Notary Public

SURVEY PLAT

OF WELLS
AT THE NORTH CAPE CORAL WELL SITE
LOCATED IN
CITY OF CAPE CORAL, LEE COUNTY, FLORIDA

THE COORDINATES SHOWN HEREON WERE BASED ON GPS REAL-TIME TIES TO "GPS HOLT" CONTROL STATION.

DESIGNATION - GPS HOLT
PID - AD8700
STATE/COUNTY - FL/LEE
USGS QUAD - FORT MYERS NW (1987)
NAD 83/99 GEOGRAPHIC COORDINATE - N 26°41'50.77927" W 081°59'24.69582"
NAD 83/90 STATE PLANE COORDINATE - FLORIDA WEST ZONE
NORTHING: 261881.921 (MT)
EASTING: 200975.899 (MT)

NOTES:

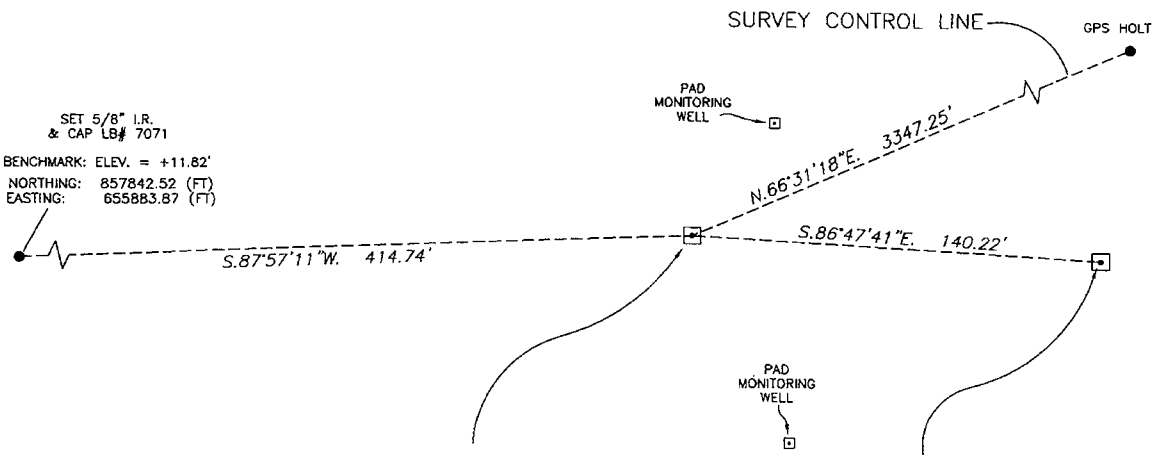
THIS PLAT PREPARED AS A SPECIFIC PURPOSE SURVEY TO SHOW THE RECENTLY CONSTRUCTED WELLS AT THE NORTH CAPE CORAL WELL SITE.

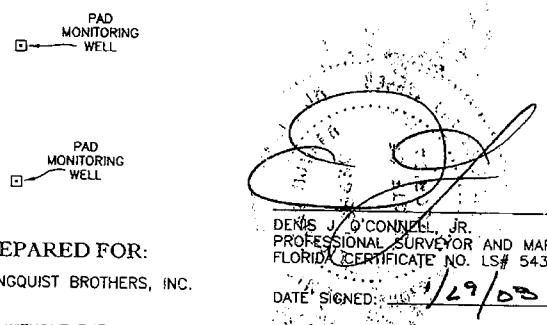
BEARINGS AND COORDINATES SHOWN HEREON ARE STATE PLANE FOR THE FLORIDA WEST ZONE NAD 83/1999 ADJUSTMENT AND BASED ON GPS REAL-TIME TIES TO CONTROL STATION "GPS HOLT".

ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), FROM TIES TO CAPE CORAL BENCHMARK 062-32-01, ELEVATION = +16.31' (NAVD88) ELEVATION = +17.49' (NGVD29).

UNDERGROUND IMPROVEMENTS, UTILITIES AND/OR FOUNDATIONS WERE NOT LOCATED UNLESS OTHERWISE NOTED.

DATE OF LAST FIELD WORK: 11-30-2007





DUAL ZONE MONITOR WELL

NORTHING: 857857.33 (FT)
EASTING: 656298.34 (FT)

LATITUDE: N 26°41'37.57"
LONGITUDE: W 81°59'58.55"

UPPER FLANGE EL =+17.43'
LOWER FLANGE EL =+16.23'
TOP OF CASING EL =+15.92'

DEEP INJECTION WELL

NORTHING: 857849.49 (FT)
EASTING: 656438.34 (FT)

LATITUDE: N 26°41'37.49"
LONGITUDE: W 81°59'57.00"

FLANGE EL =+16.39'

LEGEND:

M.W.=MONITOR WELL
EL.= ELEVATION
FT.= FEET
MT.= METERS
CONC.= CONCRETE

REVISION: CHANGE ELEVATION FROM NGVD TO NAVD (DJO)
REVISION: ADD LOCATED WELLS 12-11-2007 (DESII)

PREPARED FOR:

YOUNGQUIST BROTHERS, INC.

DENIS J. O'CONNELL, JR.
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. LS# 5430
DATE SIGNED: 1/29/08

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

TITLE: SPECIFIC PURPOSE SURVEY

METRON
SURVEYING & MAPPING, LLC
LAND SURVEYORS-PLANNERS
LB# 7071

10970 S. CLEVELAND AVENUE, SUITE #605
FORT MYERS, FLORIDA 33907
PHONE: (239) 275-8575
FAX: (239) 275-8457
www.metronfl.com

FILE NAME:	FIELD BOOK/PAGE:	PROJECT NO.:	SHEET:
9870SR2.DWG	452/15	9870	1 OF 1

SURVEY DATE:	DRAWN BY:	SCALE:	CHECKED BY:	(S-T-R)
12-29-2006	SMS/DESII	1"= 50'	DJO	34-43-23