Annual Report of Analysis 2006

CITY OF
VENTURA
PUBLIC WORKS

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City of Ventura Public Art Program

ANNUAL REPORT OF ANALYSIS

CITY OF SAN BUENAVENTURA

VENTURA WATER RECLAMATION FACILITY

2006

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DISCUSSION

I. INTRODUCTION: THE CITY OF SAN BUENAVENTURA

The City of San Buenaventura provides wastewater collection and treatment for the City, for McGrath State Beach Park, and for the North Coast Communities (Ventura County Service Area 29). These areas include a population of approximately 106,000 people.

THE WASTEWATER DIVISION:

Wastewater collection and treatment facilities are operated by the Wastewater Division, which along with the Water Division comprises Utilities Division of the Public Works Department. Facilities include 475 miles of sewer mains, 12 lift stations and the Ventura Water Renovation Facility (VWRF), a tertiary treatment plant.

THE VWRF UNIT PROCESS:

The VWRF, at 1400 Spinnaker Drive, is located on the north bank of and discharges treated effluent to the Santa Clara River Estuary.

Processes employed at the treatment facility during 2005 include: screening, grit removal, primary sedimentation, primary flow equalization, activated sludge secondary biological treatment, tertiary effluent filtration and chlorination.

From January 1, 2006 – February 8, 2006, process solids were treated by anaerobic digestion, dewatered and applied to agricultural land at River Island Farm near Wasco, California. On February 9, 2006, process solids are delivered to San Joaquin Composting in Lost Hills, California.

Following disinfection, effluent enters a system of Wildlife Ponds with a combined capacity of 34 million gallons. At the current average daily outfall flow rate of 7.6 MGD; this provides approximately 4 days of detention.

Wastewater facilities include pump stations and pipelines for water reclamation. In 2006 the daily average volume of treated effluent reclaimed was decrease from 520,584 gallons in 2005 to 369,655 in 2006 due to the renovation of the Olivas Park Golf Course. The maximum daily reuse volume measured in 2006 was 1,939,000 gallons per day.

The effluent reuse system provides effluent for irrigation of golf course, park and similar landscape areas. This reuse is an integral part of the city water conservation program and represents a reduction in demand on the freshwater supply each year of approximately 135.0 million gallons.

Reclaimed water for irrigation and for discharge to the Santa Clara Tidal Prism is withdrawn from the end of the wildlife pond system. Irrigation water supply is delivered by two pump stations into 3 distribution lines.

Residence in these ponds provides substantial dissipation of Chlorine residual and a corresponding reduction in the cost of dechlorination chemicals needed to meet the requirement for complete Chlorine neutralization prior to discharge to the tidal prism. Chlorine dissipation also reduces the risk of landscape damage from high Chlorine concentrations in water supplied for irrigation. Sulfur Dioxide is applied prior to estuary discharge.

NPDES permit CA0053651, issued by the Los Angeles Regional Water Quality Control Board (Water Board) as Order 00 –143, regulates discharge of treated effluent to the Santa Clara Tidal Prism. This order expired on September 10, 2005; however it remains in effect during the period necessary for Water Board staff to review estuary studies submitted by the City. Water Board staff intend to renew the Permit in Summer of 2007.

Reuse of effluent for Los Angeles Regional Water Quality Control Board Order 87-45 regulates irrigation.

The wastewater facility operation staff consists of fourteen certified operators. All hold State of California certificates as listed:

OPERATORS	Position	GRADE	CERTIFICATE NUMBER
Daniel E. Pfeifer	Wastewater Superintendent	V	V - 6737
Donald B. Burt	Wastewater Plant Supervisor	V	V - 1915
Nicholas A. Hardesty	Lead Plant Operator	IV	IV - 1374
John S. Willis	Lead Plant Operator	IV	IV - 9370
Michael S. Stehle	Lead Plant Operator	III	III - 4731
Pete Vallejo	Lead Plant Operator	III	III - 7055
Eric W. Miller	Plant Operator	V	V - 9798
Jeffery A. Baker	Plant Operator	III	III - 9316
Carey A. Adams	Plant Operator	III	III - 9785
Joseph E. Volpe	Plant Operator	V	V - 8987
Curtiss W. Montague	Plant Operator	III	III - 10475
Chad Steinclicht	Plant Operator	III	III - 10297
Baltazar Cervantez Jr.	Plant Operator	II	II - 9419
Adam Lopez	Plant Operator	I	I - 10894

II. PROCESS PERFORMANCE AND COMPLIANCE WITH DISCHARGE REQUIREMENTS

During the reporting period the effluent 7-day median coliform limit was exceeded 8 times. Biological process upset accounted for 8 coliform violations in September and December.

Chronic toxicity of 5.56 TUc was found in the effluent during the three species study conducted by Aquatic Bioassay ,INC on February 8,2006. A second bioassay performed on February 23, 2006 had an acceptable TUc of 1.0. samples. On

During February of the reporting period the selenium concentrations of 10 ug/L exceeded discharge permit limit of 8.8 ug/L.

III. IRRIGATION EFFLUENT QUALITY

A summary of principle effluent mineral constituent concentrations is presented below.

Year	Average TDS	Average Chloride	Average Sulfate	Average Boron	Average Fluoride	Average Sodium	Average Calcium	Average Magnesium	Average Potassium
1972	1950	487	421	1.5	1.04				
1973	1740	440	399	1.4	0.96				
1974	1547	422	358	1.5	1.11				
1975	1454	374	369	1.1	0.61	354	112	45	17
1976	1474	366	398	1.4	0.65	331	118	36	15
1977	1479	372	383	1.2	0.64	320	109	40	15
1978	1525	358	409	1.0	0.80	325	110	40	17
1979	1527	359	481	1.1	0.89	308	117	45	14
1980	1451	342	463	1.2	0.73	295	120	43	15
1981	1330	312	424	0.9	0.88	278	117	41	18
1982	1452	334	443	0.8	0.80	280	136	46	17
1983	1367	308	435	0.7	0.81	275	125	43	13
1984	1398	312	454	0.7	0.80	257	130	42	20
1985	1380	313	393	0.8	0.78	249	126	42	16
1986	1411	309	415	0.8	0.62	269	132	44	19
1987	1309	317	371	0.8	0.63	240	117	39	19
1988	1457	333	412	0.8	0.58	274	123	44	17
1989	1424	324	418	0.7	0.59	274	117	43	17
1990	1561	328	444	0.9	0.67	307	126	46	18
1991	1583	334	418	0.9	0.56	308	130	46	20
1992	1569	333	456	0.7	0.55	283	140	46	18
1993	1493	315	446	0.7	0.67	295	138	46	18
1994	1403	304	416	0.7	0.71	289	131	44	19
1995	1508	293	460	0.8	0.66	286	145	38	16
1997	1310	279	366	0.7	0.41	249	115	40	19

1998	1387	263	405	0.6	0.71	261	124	43	19
1999	1348	285	388	0.7	0.72	249	116	43	21
2000	1474	286	423	0.8	0.58	287	130	48	23
2001	1370	241	435	0.7	0.63	255	121	43	21
2002	1370	277	418	0.7	0.62	255	121	43	21
2003	1408	316	471	0.7	0.59	267	139	50	21
2004	1512	334	511	0.8	0.58	293	144	49.	23
2005	1533	297	563	0.7	0.53	281	135	50	23
2006	1502	268	540	0.5	0.53	274	138	48	26

LOCATION OF SAMPLE POINTS FOR MONITORING AND REPORTING PROGRAMS

From the wildlife ponds the flow discharges into the Santa Clara Tidal Prism and treated effluent is used for landscape irrigation as shown in the schematic plant flow diagram which follows. This has been the treatment plant operating mode throughout all of 2006

The total wastewater flow is treated and disinfected through the system as shown regardless to the ultimate discharge designation.

The following describes sample locations and the purposes for which each is used.

LOCATION 1 - INFLUENT PUMP STATION (IPS)

This location receives all raw wastewater flow to the treatment plant unless failure of pumping systems occurs. If such failure occurs, or should storm flows exceed the capacity of this primary station, all or part of the influent flow will be diverted to a standby facility, which has no provision for sampling or flow measurement. Such events are infrequent and a duplicate influent sampling programs is not warranted. IPS coordinates are 34 ^{o} 14'21.45" N / 119^{o} 115' 25.53" W.

The samplers used here are the ISCO 6712R which is programmed flow proportion .

The sampler is located in the main stream of the influent channel prior to the headwork adjacent to Harbor Boulevard.

Sampling is performed here for compliance monitoring and for process control. Sample analyses for pH, 5-day BOD, COD, suspended solids, nitrogen compounds quarterly metals and semi-annual priority pollutants are collected at this station.

LOCATION 2 – FLOW EQUALIZATION BASIN - PRIMARY EFFLUENT (EPE)

All effluent from the Primary Clarifier passes through this location. This sample station can be bypassed and raw sewage delivered directly to the Activated Sludge System for routine maintenance or emergency. EPE coordinates are 34°14'29.83" N / 119° 15'27.88" W.

ISCO Model 6712R sampler programmed to collect samples at uniform time intervals proportional to the flow to the secondary treatment process was used for sample collection/.

Sampling is performed at this location is for process control.

Analyses performed at this location are 5-day BOD, COD, pH, suspended solids, MBAS and nitrogen compounds.

LOCATION 3 - ACTIVATED SLUDGE PROCESS EFFLUENT

This site is at the end of the 36 inch line from the Activated Sludge Final Sedimentation (FS) Tanks and before the Mixed Media Filter Station Pump Wet Well. FS coordinates are 34° 14'22.89" N / 119° 15'27.45" W.

ISCO Model 6712R programmed to collect samples at uniform time intervals proportional to the flow to the Activated Sludge System was used for sample collection..

Sampling at this site is for process control.

Analyses performed at this location are pH, 5-day BOD, COD, suspended solids, MBAS and nitrogen compounds. The stream from the Activated Sludge System is monitored continuously by a process turbidimeter.

LOCATION 4 - EFFLUENT TRANSFER STATION (ETS)

This location follows the plant's filtration and disinfection. From here treated effluent is pumped to the Wildlife Ponds. All treated effluent passes through this station. ETS coordinates are 34° 14'21.45" N / 119° 15' 31.26" W.

ISCO Model 6712FR programmed to collect samples at uniform time intervals proportional to the flow leaving the Mixed Media Filter Station was used for sample collection.

Sampling is conducted here for compliance monitoring and for process control.

Analyses performed at this site are pH, 5-day BOD, COD, suspended solids, grease and oil, nitrogen compounds, phosphate, MBAS, quarterly metals, phenols, and pesticides, metals, chloride, sulfate, boron, fluoride, sodium, potassium, calcium, magnesium, chlorophyll A, total phosphorous. Analyses for 17 dioxin congeners and priority pollutants are performed semi-annually. The flow from the Filtration and Disinfection processes is also continuously monitored here by a process turbidimeter.

Grab samples for bacteriological examination were collected three times daily, at 7:00 AM, 11:00 AM and 8:00 PM at the Chlorine Contact Chamber until September 2006. Sample analysis is conducted at 11:00 A.M. only.

LOCATION 5 - OUTFALL METERING STRUCTURE

This sample location is after the Wildlife Pond System and near the of sulfur dioxide building used for chlorine residual neutralization and head of the discharge to the Santa Clara River Tidal Prism. All effluent reaching the Tidal Prism passes through this site. Outfall coordinates are 34° 14'11.75" N / 119° 15' 33.85" W.

Sampling is performed here for compliance monitoring and for process control.

Grab samples for temperature and composite samples used for acute toxicity and chronic toxicity are collected at this site. A residual chlorine analyzer continuously monitors the flow from the station.

RECEIVING WATER SAMPLE STATIONS

Five sample stations, designated R1 through R4 and L5 within the Santa Clara Tidal Prism are specified by the Los Angeles Regional Water Quality Control Board in the facility NPDES permit in 2000.

Locations coordinates are:

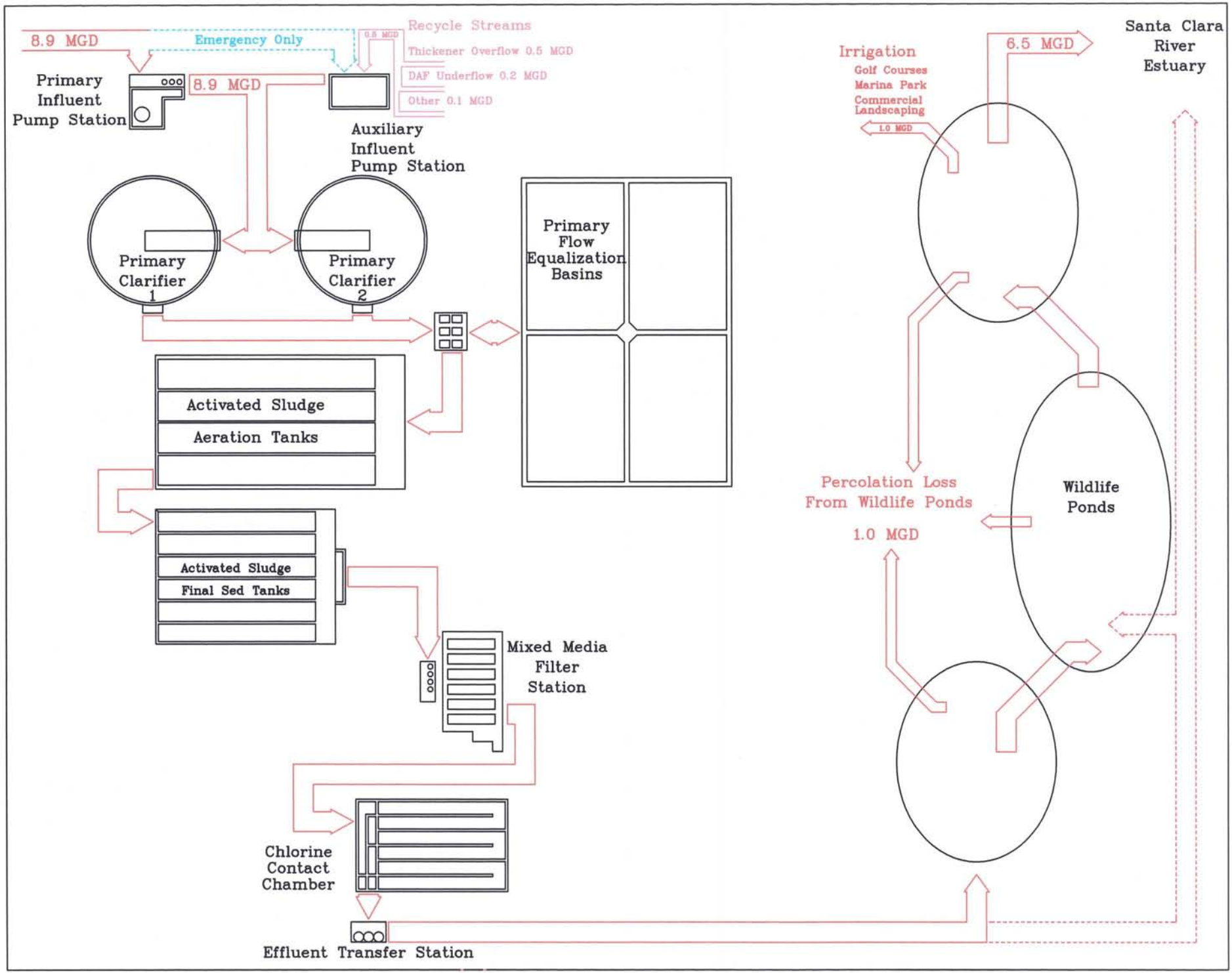
1. R1 34° 13'55.58" N / 119° 15'27.59" W.
2. R2 34° 13'47.37" N / 119° 15'43.15" W.
3. R3 Variable at the mouth of the river.
4. R4 34° 14'04.15" N / 119°15'54.19" W.
5. L5 34° 14'01.63" N / 119°15'23.79"W.

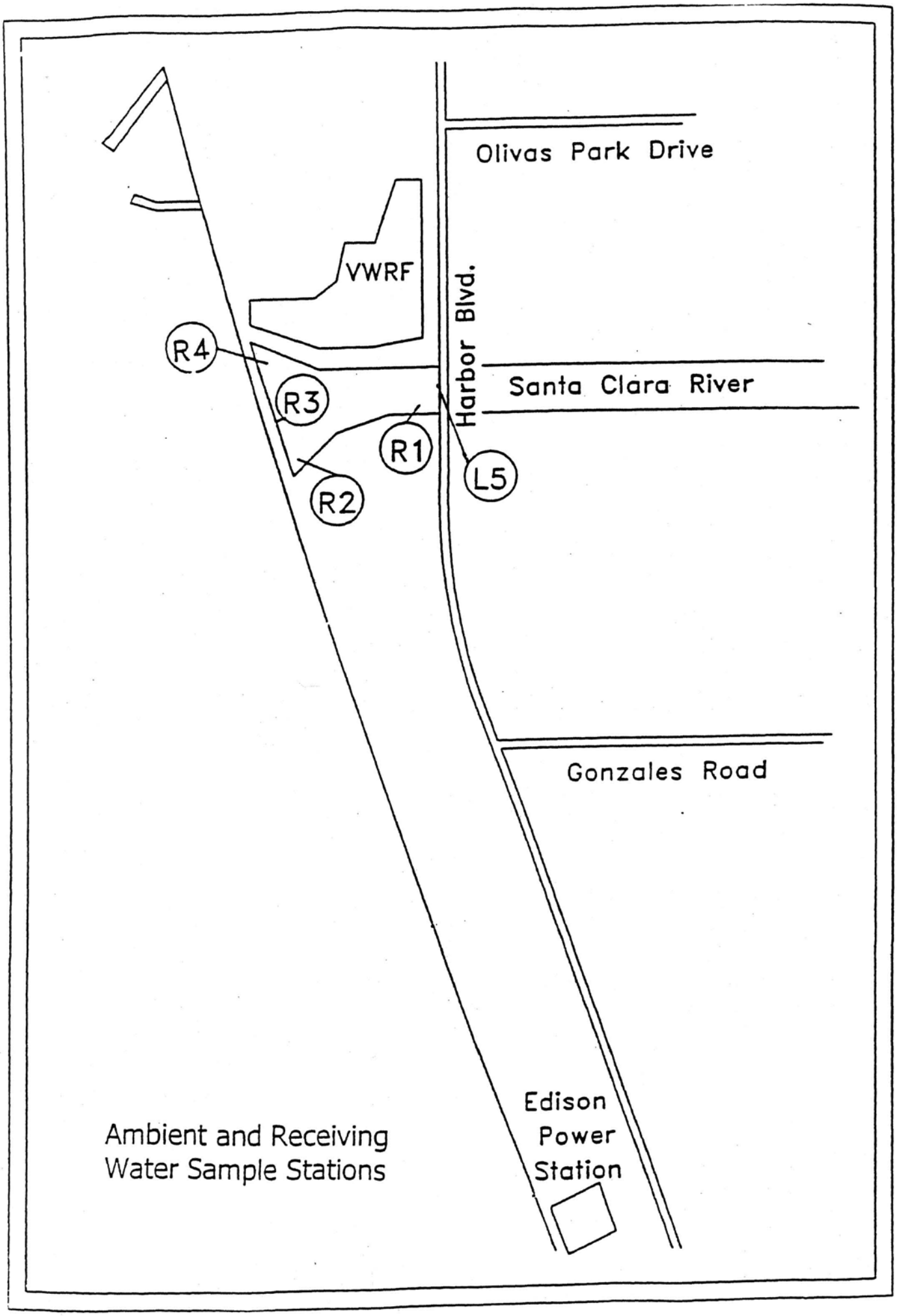
Water quality observations, temperature, salinity, chlorine residual and dissolved oxygen are measurements are done at each of these sites.

Grab samples from these locations are taken weekly and analyzed for total coliform, fecal coliform and total hardness. Other required monthly analyses for the receiving water stations R1 through R4 and L5 are total phosphorous, nitrogen compounds, and chlorophyll A. Priority Pollutants are performed on sample stations R1, R3 and L5 quarterly.

Grab samples from station R1, on the flowing stream as it enters the Tidal Prism, and R3, on the west shoreline near the point of discharge and L5 on the flowing stream as it exits the Tidal Prism from the Ventura Water Reclamation Facility are analyzed for chronic toxicity. Samples are taken for three months and analyzed using the same three species protocol applied to the discharge.

A map showing sample locations follows the schematic plant flow diagram.


8.9 MGD
Emergency Only
0.8 MGD
Recycle Streams
Thickener Overflow 0.5 MGD
DAF Underflow 0.2 MGD
Other 0.1 MGD
Primary Influent Pump Station
8.9 MGD
Auxiliary Influent Pump Station
Primary Clarifier 1
Primary Clarifier 2
Primary Flow Equalization Basins
Activated Sludge Aeration Tanks
Activated Sludge Final Sed Tanks
Mixed Media Filter Station
Chlorine Contact Chamber
Effluent Transfer Station
Irrigation
Golf Courses
Marina Park
Commercial Landscaping
1.0 MGD
6.5 MGD
Santa Clara River Estuary
Percolation Loss From Wildlife Ponds
1.0 MGD
Wildlife Ponds


Olivas Park Drive
VWRF
Harbor Blvd.
R4
R3
R1
R2
L5
Santa Clara River
Gonzales Road
Edison
Power
Station
Ambient and Receiving
Water Sample Stations


EPE
IPS
FS
ETS
E Harbor Blvd
Harbor Blvd
Burl Ave
© 2007 Navteq
Google
Pointer 34°14'24.18" N 119°15'30.62" W
Streaming 100%
Eye alt 1793 ft


Outfall
Harbor Blvd
R4
L5
R3
R2
R1
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© 2007 Navteq
©2006 Google
Pointer 34°14'00.25" N 119°15'40.16" W
Streaming 100%
Eye alt 4171 ft

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Influent Pump Station

Month	Influent Total Flow MGD	Influent pH @ Lab SU	Influent Suspended Solids @ 105C mg/l	Influent BOD mg/l	Influent COD mg/l	Influent Ammonia mg/l	Influent Total Kjeldahl Nitrogen mg/l
Jan 2006	9.32	7.51	343	271.7	570	22.8	37.2
Feb 2006	9.31	7.55	307	291.6	627	27.9	45.5
Mar 2006	9.37	7.53	281	305.6	633	25.8	39.0
Apr 2006	10.00	7.46	277	286.8	624	24.0	28.1
May 2006	9.55	7.43	335	328.2	710	27.2	41.4
Jun 2006	9.75	7.48	356	340.4	717	25.8	40.2
Jul 2006	9.78	7.58	337	300.6	631	28.3	59.1
Aug 2006	9.42	7.57	331	304.5	668	26.2	43.9
Sep 2006	9.27	7.51	302	282.5	587	27.6	48.0
Oct 2006	9.14	7.58	292	244.9	529	26.9	32.9
Nov 2006	9.23	7.55	303	253.2	560	26.6	55.4
Dec 2006	9.32	7.44	266	236.2	550	30.3	47.5
Minimum	9.14	7.43	266	236.2	529	22.8	28.1
Maximum	10.00	7.58	356	340.4	717	30.3	59.1
Average	9.46	7.52	311	287.2	617	26.6	43.2

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Influent Pump Station

Month	Influent Aluminun, Total ug/l	Influent Antimony, Total ug/l	Influent Arsenic, Total ug/l	Influent Barium Total ug/l	Influent Beryllium, Total ug/l	Influent Cadmium, Total ug/l	Influent Chromimun, Total ug/l	Influent Cobalt, Total ug/l	Influent Copper, Total ug/l	Influent Iron * ug/l
Jan 2006										
Feb 2006	558.0	<1.000	<2.0	66.700	<0.200	<4.000	<7.000	<1.000	193.000	360.00
Mar 2006										
Apr 2006										
May 2006										<100.000
Jun 2006										
Jul 2006										
Aug 2006	610.0	<1.000	<2.000	33.000	<0.200	<4.000	<7.000	<1.000	140.000	120.000
Sep 2006										
Oct 2006										
Nov 2006										140.000
Dec 2006										
Minimum	558.0	<1.000	<2.000	33.000	<0.200	<4.000	<7.000	<1.000	140.000	<100.000
Maximum	610.0	<1.000	<2.000	66.700	<0.200	<4.000	<7.000	<1.000	193.000	360.000
Average	584.0	<1.000	<2.000	49.850	<0.200	<4.000	<7.000	<1.000	166.500	180.000

Analyzed by American Scientific Laboratories, Los Angeles, CA 90065
*Analyzed by City of San Buenaventura Wastewater Labortory, Ventura, CA 93001

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Influent Pump Station

Month	Influent Lead, Total ug/l	Influent Manganese * ug/l	Influent Mercury, Total ug/l	Influent Molybdenum, Total ug/l	Influent Nickel, Total ug/l	Influent Selenium, Total ug/l	Influent Silver, Total ug/l	Influent Thallium, Total ug/l	Influent Tin, Total ug/l	Influent Vanadium, Total ug/l	Influent Zinc, Total ug/l
Jan 2006											
Feb 2006	<5.000	130.000	<0.200	19.100	<10.000	20.100	<0.200	<1.000	<100.00	<4.000	134.000
Mar 2006											
Apr 2006											
May 2006		90.000									
Jun 2006											
Jul 2006											
Aug 2006	<5.000	100.000	<0.200	16.000	<10.000	3.000	<0.200	<1.000	<100.00	<4.000	132.000
Sep 2006											
Oct 2006											
Nov 2006		159.000									
Dec 2006											
Minimum	<5.000	90.000	<0.200	16.000	<10.000	3.00	0.200	<1.000	<100.000	<4.000	132.000
Maximum	<5.000	159.000	<0.200	19.100	<10.000	20.100	0.200	<1.000	<100.000	<4.000	134.000
Average	<5.000	119.750	<0.200	17.550	<10.000	11.550	0.200	<1.000	<100.000	4.000	133.000

Analyzed by American Scientific Laboratories, Los Angeles, CA 90065

*Analyzed by City of San Buenaventura Wastewater Labortory, Ventura, CA 93001

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Influent Pump Station

Month	Acetone ug/l	Chloroform ug/l	Toluene ug/l	Ethlylbenezene ug/l	Tetrachloroethylene ug/l	Xylene ug/l	1,1,1-Trichloroethane ug/l	1,4 Dichlorobenzene UG/L
February	0.650	3.800	0.900	<0.340	<0.030	<0.500	<0.030	1.500
August	<0.500	3.300	0.320	<0.340	<0.030	<0.500	<0.030	<4.400
Minimum	<0.500	3.300	0.320	<0.340	<0.030	<0.500	<0.030	<4.400
Maxium	0.650	3.800	0.900	<0.340	<0.030	<0.500	<0.030	1.500
Average	0.575	3.550	0.610	<0.340	<0.030	<0.500	<0.030	<2.950

Analysis Performed by American Scientific Laboratory, Los Angeles, CA 90065

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Flow Equaliztion Basin - Primary Effluent

Month	EPE pH @ Lab SU	EPE BOD mg/l	EPE COD mg/l	EPE Suspended Solids @ 105C mg/l	EPE Ammonia mg/l	EPE Total Kjeldahl Nitrogen mg/l	EPE MBAS mg/l
Jan 2006	7.52	139.5	319	93.2	29.6	39.6	6.73
Feb 2006	7.51	157.5	344	89.5	31.4	44.6	7.68
Mar 2006	7.44	175.8	361	87.5	25.8	35.8	7.07
Apr 2006	7.38	173.8	369	87.4	25.6	36.8	7.87
May 2006	7.37	190.6	392	92.6	23.9	40.0	4.61
Jun 2006	7.46	191.8	381	79.2	29.0	40.0	5.40
Jul 2006	7.60	154.4	325	76.0	33.1	49.3	6.76
Aug 2006	7.59	169.9	360	70.8	26.7	39.2	
Sep 2006	7.48	159.2	333	61.8	28.9	44.3	8.88
Oct 2006	7.57	128.6	307	77.4	28.2	35.9	5.42
Nov 2006	7.53	137.0	323	71.1	26.3	50.7	8.57
Dec 2006	7.57	114.7	296	88.7	30.8	41.6	10.10
Minimum	7.17	74.4	223	35.4	20.2	35.8	4.61
Maximum	7.82	325.2	490	154.0	42.3	50.7	11.1
Average	7.50	158.5	343	81.3	28.1	41.5	7.5

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Mixed Media Filter Station (FS) Influent

Month	MMF Flow MGD	FS Suspended Solids @ 105C mg/l	FS BOD mg/l	FS COD mg/l	FS Nitrate mg/l	FS Nitrite mg/l	FS Ammonia mg/l	FS Total Kjeldahl Nitrogen mg/l	FS MBAS mg/l
Jan 2006	9.77	8.67	9.4	38.4	17.8	<0.5	0.9	0.9	0.06
Feb 2006	9.73	6.40	9.4	39.9	17.9	<0.6	0.9	1.3	0.05
Mar 2006	9.80	6.22	15.4	41.3	11.5	0.6	2.0	2.4	0.09
Apr 2006	10.45	6.76	14.5	43.0	8.0	<0.6	2.3	3.2	0.11
May 2006	9.95	11.11	14.9	46.0	8.3	0.7	2.5	5.0	0.50
Jun 2006	10.16	14.05	16.7	49.6	8.2	<0.5	1.6	6.8	0.10
Jul 2006	10.19	10.41	12.6	40.9	14.7	0.7	1.2	3.5	0.10
Aug 2006	10.01	6.31	9.9	36.4	11.2	<0.4	0.7	2.2	0.05
Sep 2006	9.93	5.48	10.4	34.0	10.7	0.5	0.4	4.4	0.21
Oct 2006	9.72	7.49	10.5	38.9	13.9	<0.4	0.7	2.4	0.11
Nov 2006	9.88	7.53	9.8	33.7	14.8	<0.4	0.5	5.6	0.29
Dec 2006	9.97	10.17	12.3	35.0	17.9	<0.6	0.6	0.5	0.07
Minimum	8.89	2.52	2.4	17.3	6.0	<0.4	0.1	0.5	0.05
Maximum	13.18	37.72	30.0	76.9	21.9	1.2	5.5	6.8	0.50
Average	9.96	8.43	12.2	39.8	12.8	0.5	1.2	3.2	0.15

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Effluent Transfer Station

Month	Effluent pH @ Lab su	Effluent Suspended Solids @ 105C mg/l	Effluent Suspended Solid Load lbs/day	Effluent Total Dissolved Solids mg/l	Effluent Conductivity mg/l	Effluent BOD mg/l	Effluent BOD Load lbs/day	Effluent COD mg/l	Effluent Settable Solids mg/l	Effluent Dissolved Oxygen mg/l
Jan 2006	7.37	0.70	39	1,464	2,116	2.6	147	25.3	<0.10	7.4
Feb 2006	7.38	0.73	42	1,401	2,140	2.1	121	28.0	<0.10	7.4
Mar 2006	7.37	0.72	34	1,518	2,286	1.8	81	28.5	<0.10	7.1
Apr 2006	7.33	0.90	45	1,591	2,396	2.1	104	29.0	<0.10	6.7
May 2006	7.35	0.90	51	1,611	2,345	1.8	107	29.2	<0.10	6.9
Jun 2006	7.26	1.22	78	1,615	2,327	2.3	147	28.4	<0.10	6.7
Jul 2006	7.35	1.06	67	1,606	2,318	1.7	109	24.5	<0.10	6.7
Aug 2006	7.38	0.52	33	1,555	2,299	2.5	154	25.3	<0.10	6.8
Sep 2006	7.37	0.64	42	1,396	2,188	2.9	192	27.0	<0.10	6.7
Oct 2006	7.43	0.61	40	1,418	2,187	2.2	143	29.3	<0.10	6.9
Nov 2006	7.44	0.50	33	1,389	2,212	1.6	106	26.5	<0.10	6.9
Dec 2006	7.41	0.60	40	1,441	2,251	1.7	113	26.2	<0.10	7.3
Minimum	7.00	0.04	3	1,082	1,976	0.1	7	13.0	<0.10	6.0
Maximum	7.69	2.88	153	1,942	2,490	4.3	271	50.1	<0.10	7.8
Average	7.37	0.76	45	1,502	2,256	2.1	127	27.3	<0.10	7.0

Limitations of Permit CA0053651

Daily Maximum	45	5,250		45	5,250	0.3
7 Day Average	40	4,670		30	4,670	
30 Day Average	15	1,751		20	1,751	0.1

Ventura Water Reclamation Facility
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Effluent Transfer Station

Month	Effluent Grease & Oil mg/l	Effluent Grease & Oil Load lbs/day	Effluent ETS Turbidity Max NTU	Effluent Nitrate mg/l	Effluent Nitrite mg/l	Effluent Ammonia mg/l	Effluent Total Kjeldahl Nitrogen mg/l	Effluent Total Organic Nitrogen mg/l
Jan 2006	1.0	55	0.7	18.0	<0.4	1.8	1.0	<.1
Feb 2006	1.0	65	0.9	17.7	<0.4	1.6	0.9	<.1
Mar 2006	1.0	48	0.8	13.6	<0.4	2.3	1.5	0.4
Apr 2006	1.0	51	0.8	10.4	<0.4	3.3	0.8	<.1
May 2006	1.0	64	0.7	10.6	<0.4	2.9	3.4	<.1
Jun 2006	1.4	92	1.0	10.1	<0.4	2.1	5.0	2.5
Jul 2006	1.0	63	0.9	15.4	<0.4	1.8	1.6	<.1
Aug 2006	1.0	64	0.9	12.1	<0.4	0.9	1.8	0.4
Sep 2006	1.0	65	0.7	12.1	<0.4	1.5	3.7	2.5
Oct 2006	1.7	117	0.6	15.4	<0.4	1.2	1.0	<.1
Nov 2006	1.0	69	0.5	15.7	<0.4	1.3	4.2	2.5
Dec 2006	1.0	65	0.6	18.2	<0.4	1.5	0.2	<.1
Minimum	1.0	43	0.3	8.5	<0 .4	0.3	0.2	<.1
Maximum	2.8	166	6.0	22.5	0.5	6.2	5.0	2.5
Average	1.1	69	0.7	14.1	<0 .4	1.8	2.1	0.4

Limitations of Permit CA0053651

Daily Maximum	15	1,750
7 Day Average		
30 Day Average	10	1.170

Ventura Water Reclamation Facility

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Effluent Transfer Station

Month	Effluent Chloride mg/l	Effluent Sulfate mg/l	Effluent Sodium mg/l	Effluent Calcium mg/l	Effluent Magnesium mg/l	Effluent Potassium mg/l
Jan 2006	262	526	267	137	49.4	23.6
Feb 2006	262	530	271	138	46.1	26.6
Mar 2006	257	547	262	123	35.8	23.9
Apr 2006	269	615	250	145	48.3	22.4
May 2006	270	581	296	146	49.1	27.1
Jun 2006	274	572	249	148	54.1	25.0
Jul 2006	282	603	261	146	55.5	24.9
Aug 2006	268	551	257	144	47.4	26.0
Sep 2006	259	474	264	147	53.5	26.5
Oct 2006	269	510	234	119	44.6	25.4
Nov 2006	282	509	257	125	44.6	27.4
Dec 2006	283	522	260	136	45.9	36.8
Minimum	257	474	234	119	35.8	22.4
Maximum	283	615	296	148	55.5	36.8
Average	270	545	261	138	47.9	26.3

Ventura Water Reclamation Facility

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Effluent Transfer Station

Month	Effluent Phosphate mg/l	Effluent Total Phosphorus mg/l	Effluent Boron mg/l	Effluent Fluoride mg/l	Effluent Total Alkalinity mg/l	Effluent MBAS mg/l	Effluent Chlorophyll A* mg/l
Jan 2006	1.77	1.87	0.60	0.56	179	0.07	0.025
Feb 2006	2.10	1.20	0.54	0.60	164	0.13	0.099
Mar 2006	1.62	1.52	0.51	0.50	177	0.07	0.045
Apr 2006	0.82	1.05	0.55	0.60	231	0.09	0.095
May 2006	1.68	1.70	0.45	0.56	239	<0.05	0.059
Jun 2006	1.92	2.32	0.41	0.54	230	<0.05	0.110
Jul 2006	1.89	1.99	0.44	0.48	168	<0.05	0.055
Aug 2006	2.67	2.45	0.53	0.54	204	<0.05	0.006
Sep 2006	2.57	2.34	0.58	0.44	182	0.20	0.011
Oct 2006	1.54	2.08	0.54	0.49	199	0.13	0.029
Nov 2006	2.62	4.09	0.51	0.53	207	0.27	0.054
Dec 2006	2.38	5.61	0.65	0.53	184	0.06	0.010
Minimum	0.82	1.05	0.41	0.44	164	<0.05	0.006
Maximum	2.67	5.61	0.65	0.60	239	0.27	0.110
Average	1.97	2.35	0.53	0.53	197	0.08	0.050

* Analyzed by Aquatic Bioassay Consulting Laboratories, INC., Ventura, California 93001

Ventura Water Reclamation Facility
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Effluent Transfer Station

Month	Effluent Total Cyanide (As CN) ug/l	Effluent Aluminum, Total ug/l	Effluent Antimony, Total ug/l	Effluent Arsenic, Total ug/l	Effluent Barium, Total ug/l	Effluent Beryllium, Total ug/l	Effluent Cadmium, Total ug/l	Effluent Cobalt, Total ug/l	Effluent Chromium, Hexavalent, Total ug/l	Effluent Copper, Total ug/l
Jan 2006										
Feb 2006	<5.000	34.800	<1.000	<2.000	18.800	<0.200	<4.000	1.140	<1.000	<6.000
Mar 2006										
Apr 2006										
May 2006	<5.000	<3.000	<1.000	<2.000	19.700	<0.200	<4.000	<1.000	<1.000	<6.000
Jun 2006										
Jul 2006										
Aug 2006	<5.000	122.000	<1.000	<2.000	<2.000	<0.200	<4.000	<1.000	<1.000	<6.000
Sep 2006										
Oct 2006										
Nov 2006	<5.000	<3.000	<1.000	<2.000	23.500	<0.200	<4.000	<1.000	<1.000	<2.000
Dec 2006										
Minimum	<5.000	<3.000	<1.000	<2.000	<2.000	<.2000	<4.000	<1.000	<1.000	<2.000
Maximum	<5.000	122.00	<1.000	<2.000	23.500	<.2000	<4.000	1.140	<1.000	<6.000
Average	<5.000	39.20	<1.000	<2.000	15.500	<.2000	<4.000	<0.285	<1.000	<5.000

Limitation of Permit CA0053651

Daily Maximum	.99	11	2.9
Monthly Average	.41	3.7	2.0

Analyzed by American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility
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Effluent Transfer Station

Month	Effluent Lead, Total ug/l	Effluent Mercury, Total ug/l	Effluent Molybdenum, Total ug/l	Effluent Nickel, Total ug/l	Effluent Selenium, Total ug/l	Effluent Silver, Total ug/l	Effluent Thallium, Total ug/l	Effluent, Tin Total ug/l	Effluent Vanadium, Total ug/l	Effluent Zinc, Total ug/l
Jan 2006										
Feb 2006	<5.00	<0.200	15.400	<10.000	10.400	<0.200	<1.000	<100.000	<4.000	26.500
Mar 2006										
Apr 2006										
May 2006	<5.00	<0.200	13.500	<10.000	6.710	<1.000	<1.000	<100.000	<4.000	9.090
Jun 2006										
Jul 2006										
Aug 2006	<5.00	<0.200	12.100	<10.000	<2.000	<0.200	<1.000	<100.000	<4.000	20.000
Sep 2006										
Oct 2006										
Nov 2006	<5.00	<0.020	18.400	2.810	<2.000	<0.200	<1.000	<100.000	<4.000	22.200
Dec 2006										
Minimum	<5.00	<.200	12.10	<10.000	<2.000	<.200	<1.000	<100.00	<4.000	9.09
Maximum	<5.00	<.200	18.40	<10.000	10.40	<.200	<1.000	<100.00	<4.000	26.50
Average	<5.00	<.200	14.85	<10.000	4.28	<.200	<1.000	<100.00	<4.000	19.45

Limitation of Permit CA0053651

Daily Maximum	14	.12		15.2	8.8					95
30 Day Average	7.0	.025		5.3	2.9					38

Analyzed by American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility

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Effluent Transfer Station

Month	Aldrin ug/l	alpha - BHC ug/l	beta - BHC ug/l	delta - BHC ug/l	Lindane ug/l	PCBs ug/l	Chlordane UG/L	Toxaphene ug/l	DDD ug/l	alpha Endosulfan ug/l	beta Endosulfan ug/l
February	<0.004	<0.003	<0.006	<0.009	<0.004	<0.585	<0.014	<10.000	<2.800	<0.014	<0.004
May*	<0.003	<0.007	<0.005	<0.012	<0.007	<0.395	<0.361	<0.529	<0.010	<0.009	<0.029
August	<0.004	<0.003	<0.006	<0.009	<0.004	<0.585	<0.014	<10.000	<2.800	<0.014	<0.004
November*	<0.003	<0.007	<0.005	<0.012	<0.007	<0.395	<0.361	<0.529	<0.010	<0.009	<0.029
Average	<0.004	<0.005	<0.006	<0.011	<0.006	<0.490	<0.188	<5.265	<1.405	<0.012	<0.017
Maximum	<0.004	<0.007	<0.006	<0.012	<0.007	<0.585	<0.361	<10.000	<2.800	<0.014	<0.029
Minimum	<0.003	<0.003	<0.005	<0.009	<0.004	<0.395	<0.014	<0.529	<0.010	<0.009	<0.004

Permit Limit CA0053651

Daily Maximum	0.00028	0.092	0.13	0.00034	0.0012	0.00033	0.0017	0.014	0.014
Monthy Average	.00014	0.046	0.063	.00017	0.00059	0.00016	0.00084	0.0007	0.004

Analyses Performed by American Scientific Labortories, Los Angeles, CA 90065

*Analyses Performed by City of San Buenaventura Wastewater Laboratory, Ventura, CA 93001

Ventura Water Reclamation Facility

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Effluent Transfer Station

Month	Bromoform ug/l	Chloroform ug/l	Dibromchloromethane ug/l	Dichlorobromomethane ug/l	Carbon Tetrachloride ug/l	1, 4 Dichlorobenzene ug/l
February	<0.2000	7.200	1.200	2.900	<0.12	<4.400
May	0.700	14.000	3.300	8.600	<0.12	
August	<0.200	10.000	2.000	5.900	<0.12	<4.400
November	<0.200	14.200	1.500	5.000	<0.12	
Annual Average	<0.18	11.350	2.000	5.600	<0.12	<4.400
Maximum	0.70	14.200	3.300	8.600	<0.12	<4.400
Minimum	<0.20	7.200	1.200	2.900	<0.12	<4.400

Permit Limit CA0053651

Daily Maximum	82	22
Monthy Average	34	

Analyses Performed by American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility
Annual Report 2006

Effluent Transfer Station

Month	Pentachlorophenol ug/l	Benzene ug/l	Bis (2-Ethyylhexylphthalate) ug/l	Acetone ug/l	Xylene ug/l	Chlorobenzene ug/l
February	<1.080	<0.20	<2.50	<0.50	<0.50	<0.200
May	<1.081	<0.20	<2.50	<0.50	<0.50	<0.200
August	<3.600	<0.20	<2.50	<0.50	<0.50	<0.200
November	<1.090	<0.20	<2.50	<0.50	<0.50	<0.200
Annual Average	<1.713	<0.20	<2.50	<0.50	<0.50	<0.200
Maximum	<3.600	<0.20	<2.50	<0.50	<0.50	<0.200
Minimum	<1.080	<0.20	<2.50	<0.50	<0.50	<0.200

Permit Limit CA0053651

Daily Maximum	13	71	5.9
Monthy Average	7.9		

Analyses Performed By American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility

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Effluent Transfer Station

Month	Contact Chamber Chlorine Residual - 0700 mg/L	Contact Chamber Chlorine Residual - 1100 mg/L	Contact Chamber Chlorine Residual - 2000 mg/L	Effluent Chlorine Residual @ 1100 mg/l
Jan 2006	4.8	4.7	5.0	4.6
Feb 2006	4.4	4.2	4.6	4.2
Mar 2006	6.0	5.8	5.7	5.9
Apr 2006	5.2	5.0	5.1	5.0
May 2006	5.7	5.3	5.3	5.5
Jun 2006	4.9	5.1	4.6	5.1
Jul 2006	4.3	4.1	4.2	4.1
Aug 2006	4.5	4.1	4.1	4.1
Sep 2006	4.5	4.2	4.2	4.1
Oct 2006	4.7	4.6	***	4.5
Nov 2006	***	4.0	***	4.0
Dec 2006	***	4.2	***	4.1
Minimum	3.2	1.3	3.2	1.2
Maximum	7.5	8.2	7.4	9.4
Average	4.9	4.6	4.8	4.6

Limitation of Permint CA0053651

*** -Sampling of Site Discontnued.

Ventura Water Reclamation Facility

Annual Report 2006

Outfall Junction Structure

Month	Effluent Estuary Flow Max MGD	Effluent Chlorine Residual Daily Max mg/l	Effluent Temperature Deg. C	Acute 96hr Toxicity Pimphales * %	Chronic Ceriodaphnia - Survival * TUc	Chronic Ceriodaphnia - Reproduction * TUc
Jan 2006	7.31	<.10	17.2		1.00	1.00
Feb 2006	7.97	<.10	18.2		1.00	1.00
Mar 2006	6.93	<.10	18.4			
Apr 2006	6.70	<.10	20.7			
May 2006	7.72	<.10	22.3			
Jun 2006	8.52	<.10	24.3			
Jul 2006	8.53	<.10	25.8			
Aug 2006	8.64	<.10	25.1			
Sep 2006	8.80	<.10	23.4			
Oct 2006	8.80	<.10	21.9			
Nov 2006	8.96	<.10	20.2	100.00	1.00	1.00
Dec 2006	8.70	<.10	16.4	100.00	1.00	1.00
Minimum	6.70	<.10	16.4	100.00	1.00	1.00
Maximum	8.96	<.10	25.8	100.00	1.00	1.00
Average	8.13	<.10	21.2	100.00	1.00	1.00

Limitation of Permit CA0053651

Daily Maximum
30 Day Average

Bioassays performed by Aquatic Bioassay Consulting Labortories, Ventura, CA 93001

Ventura Water Reclamation Facility
Annual Report 2006

Outfall Junction Structure

	Chronic Fathead Larvae - Growth * TUc	Chronic Fathead Larvae- Survival * TUc	Chronic Selenastrum - Growth TUc
Jan 2006	1.00	1.00	1.00
Feb 2006	1.00	1.00	1.00
Mar 2006			1.00
Apr 2006			1.00
May 2006			1.00
Jun 2006			1.00
Jul 2006			1.00
Aug 2006			1.00
Sep 2006			1.00
Oct 2006			1.00
Nov 2006	1.00	1.00	1.00
Dec 2006	1.00	1.00	1.00
Minimum	1.00	1.00	1.00
Maximum	1.00	1.00	1.00
Average	1.00	1.00	1.00

Limiitation of Permit CA0053651	1.00	1.00	1.00

*Analyzed by Aquaic Bioassay Consulting Laboratoires, INC., Ventura, CA 93001

Ventura Water Reclamation Facility
Annual Report 2006

Rceiving Water Station

Month	R1 Chronic Selenastrum-Growth TUc	R1 Chronic Ceriodaphnia - Reproduction TUc	R1 Chronic Ceriodaphnia - Survival TUc	R1 Chronic Fathead Larvae - Growth TUc	R1 Chronic Fathead Larvae - Survival TUc
Jan 2006	1.00	1.00	1.00	1.00	1.00
Feb 2006					
Mar 2006	5.56	1.79	1.00	1.00	1.00
Apr 2006					
May 2006	1.00				
Jun 2006					
Jul 2006					
Aug 2006					
Sep 2006					
Oct 2006					
Nov 2006	1.00	1.00	1.00	1.00	1.00
Dec 2006	1.00	1.79	1.79	1.00	1.00
Minimum	1.00	1.00	1.00	1.00	1.00
Maximum	5.56	1.79	1.79	1.00	1.00
Average	1.91	1.40	1.20	1.00	1.00

Analyzed by Aquatic Bioassay Consulting Laboratories, INC., Ventura, CA 93001

Ventura Water Reclamation Facility

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Receiving Water Station

Month	R3 Chronic Selenastrum - Growth TUc	R3 Chronic Ceriodaphnia - Reproduction TUc	R3 Chronic Ceriodaphnia - Survival TUc	R3 Chronic Fathead Larvae - Growth TUc	R3 Chronic Fathead Larvae - Survival TUc
Jan 2006	10.00	10.00	5.56	1.79	1.79
Feb 2006	10.00	10.00	10.00	3.13	5.56
Mar 2006					
Apr 2006					
May 2006	1.79				
Jun 2006					
Jul 2006					
Aug 2006					
Sep 2006					
Oct 2006					
Nov 2006	1.00	1.79	1.00	1.79	1.00
Dec 2006	1.00	3.13	1.00	1.00	1.00
Minimum	1.00	1.79	1.00	1.00	1.00
Maximum	10.00	10.00	10.00	3.13	5.56
Average	4.76	6.23	4.39	1.93	2.34

Analyzed by Aquatic Bioassay Consulting Labortories, INC., Ventura, CA 93001

Ventura Water Reclamation Facility

Annual Report 2006

Receiving Water Station

Month	L5 Chronic Selenastrum - Growth TUc	L5 Chronic Cerodaphnia - Reproduction TUc	L5 Chronic Ceriodaphnia - Survival TUc	L5 Chronic Fathead Larvae - Growth TUc	L5 Chronic Fathead Larvae - Survival TUc
Jan 2006	1.00	1.79	1.79	1.00	1.00
Feb 2006					
Mar 2006	1.00	1.79	1.00	1.79	3.13
Apr 2006					
May 2006					
Jun 2006		1.00	1.00		
Jul 2006					
Aug 2006					
Sep 2006					
Oct 2006					
Nov 2006	1.00	1.00	1.00	1.00	1.00
Dec 2006	1.00	1.79	1.00	1.00	1.00
Minimum	1.00	1.00	1.00	1.00	1.00
Maximum	1.00	1.79	1.79	1.79	3.13
Average	1.00	1.47	1.16	1.20	1.53

Analyzed by Aquatic Bioassay Laboratories, INC., Ventura, CA 93001

Ventura Water Reclamation Facility

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Receiving Water Stations

Month	R1 Air Temperature Deg. C	R2 Air Temperature Deg. C	R3 Air Temperature Deg. C	R4 Air Temperature Deg. C	L5 Air Temperature Deg. C	R1 Water Temperature Deg. C	R2 Water Temperature Deg. C	R3 Water Temperature Deg. C	R4 Water Temperature Deg. C	L5 Water Temperature Deg. C
Jan 2006	15.8	16.4	16.9	16.2	18.0	13.0	12.5	13.2	13.6	14.2
Feb 2006	15.8	15.4	16.4	16.3	17.0	12.3	13.0	13.4	15.4	12.2
Mar 2006	15.8	14.0	14.7	15.3	15.0	13.2	13.5	14.4	16.2	13.8
Apr 2006	15.5	15.5	15.7	15.8	15.9	14.6	14.9	16.4	18.5	14.3
May 2006	16.7	16.7	16.7	16.8	16.7	17.7	18.7	20.9	21.6	19.1
Jun 2006	19.4	20.1	20.2	20.3	20.8	17.5	19.4	20.0	22.9	21.1
Jul 2006	24.3	23.8	24.0	24.3	23.3	22.8	23.1	22.8	23.7	21.8
Aug 2006	22.3	21.4	22.9	23.4	21.8	21.0	21.8	22.1	23.4	26.9
Sep 2006	21.3	21.3	21.6	21.7	21.8	17.5	20.2	21.3	21.9	19.4
Oct 2006	20.4	20.4	21.0	21.2	20.3	17.6	19.1	18.9	19.5	18.3
Nov 2006	19.0	19.2	19.5	19.6	19.0	15.9	17.1	17.2	18.1	17.5
Dec 2006	18.0	17.6	18.0	18.3	18.3	10.7	13.5	13.3	13.6	13.3
Minimum	15.0	13.0	13.0	11.4	13.0	10.7	12.5	13.2	13.6	11.8
Maximum	28.0	28.0	28.0	28.0	26.0	24.5	23.1	22.8	23.7	24.0
Average	18.7	18.6	19.0	19.2	19.3	16.2	17.2	17.8	19.0	15.4

Ventura Water Reclamation Facility

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Receiving Water Stations

Month	R1 Chlorine Residual MG/L	R2 Chlorine Residual MG/L	R3 Chlorine Residual MG/L	R4 Chlorine Residual MG/L	L5 Chlorine Residual MG/L	R1 Salinity PPT	R2 Salinity PPT	R3 Salinity PPT	R4 Salinity PPT	L5 Salinity PPT
Jan 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.4	20.5	20.4	14.8	4.0
Feb 2006	<0.10	<0.10	<0.10	<0.10	<1.00	0.2	16.9	17.1	11.8	0.2
Mar 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.2	7.4	9.1	8.8	0.9
Apr 2006	<0.10	<0.10	<0.10	<0.10	<0.10	1.4	7.3	3.3	1.0	0.5
May 2006	<0.10	<0.10	<0.10	<0.10	<0.10	1.6	3.1	2.2	1.2	0.8
Jun 2006	<0.10	<0.10	<0.10	<0.10	<0.10	1.5	1.4	5.3	2.2	0.9
Jul 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.1	2.1	2.1	2.2	1.2
Aug 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.1	3.3	3.1	2.3	1.7
Sep 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.0	3.2	4.7	3.8	1.5
Oct 2006	<0.10	<0.10	<0.10	<0.10	<0.10	2.3	2.4	2.3	2.1	1.7
Nov 2006	<0.10	<0.10	<0.10	<0.10	<0.10	3.8	4.7	3.9	4.3	4.0
Dec 2006	<0.10	<0.10	<0.10	<0.10	<0.10	3.6	25.3	18.0	20.9	2.0
Minimum	<0.10	<0.10	<0.10	<0.10	<0.10	0.2	0.1	0.3	0.4	0.2
Maximum	<0.10	<0.10	<0.10	<0.10	<0.10	5.4	35.2	31.7	31.4	5.1
Average	<0.10	<0.10	<0.10	<0.10	<0.12	2.1	7.8	7.6	6.2	1.5

Ventura Water Reclamation Facility

Annual Report 2006

Receiving Water Stations

Month	R1 Dissolved Oxygen MG/L	R2 Dissolved Oxygen MG/L	R3 Dissolved Oxygen MG/L	R4 Dissolved Oxygen MG/L	L5 Dissolved Oxygen MG/L	R1 Hardness MG/L	R2 Hardness MG/L	R3 Hardness MG/L	R4 Hardness MG/L	L5 Hardness MG/L
Jan 2006	7.0	7.8	9.6	8.7	6.8	1,640	4,193	4,658	2,136	1,640
Feb 2006	10.3	4.2	8.9	8.2	10.2	540	2,443	3,453	1,058	580
Mar 2006	8.0	2.2	8.8	8.5	3.2	1,450	3,025	923	673	670
Apr 2006	8.0	5.9	8.7	8.2	9.5	1,268	1,478	660	545	540
May 2006	6.9	7.3	9.1	8.0	9.3	1,534	1,512	846	704	548
Jun 2006	4.8	8.9	13.7	11.3	10.9	1,530	1,905	1,360	648	650
Jul 2006	3.2	7.5	9.9	9.6	6.5	900	775	813	753	788
Aug 2006	1.8	7.1	6.1	5.8	5.3	1,208	1,018	890	794	964
Sep 2006	1.8	8.0	7.6	8.6	9.6	1,395	950	975	965	1,108
Oct 2006	2.4	5.6	5.8	5.0	6.0	1,026	852	878	816	1,004
Nov 2006	3.8	6.9	7.4	7.4	5.7	1,525	1,215	1,108	1,005	1,293
Dec 2006	6.2	6.6	7.2	5.9	11.2	1,250	3,240	2,018	1,078	1,175
Minimum	1.2	2.8	3.1	3.1	2.0	500	360	530	290	420
Maximum	12.7	12.2	18.9	15.6	13.7	1,690	5,780	9,300	5,920	1,640
Average	4.5	6.5	8.5	7.9	7.7	1,279	1,839	1,569	945	882

Ventura Water Reclamaton Facililty
Annual Report 2006

Receiving Water Stations

Month	R1 Nitrate MG/L	R2 Nitrate MG/L	R3 Nitrate MG/L	R4 Nitrate MG/L	L5 Nitrate MG/L	R1 Nitrite MG/L	R2 Nitrite MG/L	R3 Nitrite MG/L	R4 Nitrite MG/L	L5 Nitrite MG/L
Jan 2006	***	4.5	6.1	11.8	***	***	<0.4	<0.4	<0.4	***
Feb 2006	***	0.4	3.6	12.7	***	***	<0.4	<0.4	<0.4	***
Mar 2006	3.5	<0.4	6.1	15.0	1.4	<0.4	<0.4	<0.4	<0.4	<0.4
Apr 2006	17.0	7.6	8.6	12.4	0.9	<0.4	<0.4	0.5	0.7	<0.4
May 2006	12.9	2.0	6.6	9.2	1.3	<0.4	<0.4	0.6	0.8	<0.4
Jun 2006	10.2	<0.4	4.4	9.8	1.9	<0.4	<0.4	<0.4	0.5	<0.4
Jul 2006	1.0	2.2	6.1	12.7	1.1	<0.4	<0.4	<0.4	0.7	<0.4
Aug 2006	8.3	3.4	3.0	2.9	2.9	<0.4	0.4	<0.4	<0.4	<0.4
Sep 2006	3.8	2.4	3.4	8.9	1.9	<0.4	<0.4	<0.4	<0.4	<0.4
Oct 2006	2.5	1.5	5.5	4.1	0.7	<0.4	0.5	<0.4	0.3	0.4
Nov 2006	10.0	6.3	6.0	5.8	3.3	<0.4	<0.4	<0.4	<0.4	<0.4
Dec 2006	6.8	8.1	11.3	11.4	7.5	<0.4	<0.4	<0.4	<0.4	<0.4
Minimum	1.0	<0.4	3.0	2.9	0.7	<0.40	<0.4	<0.4	0.3	<0.4
Maximum	17.0	8.1	11.3	15.0	7.5	<0.40	0.5	0.6	0.8	0.4
Average	7.6	3.3	5.9	9.7	2.3	<0.40	<0.4	<0.4	0.5	<0.4

*** No data - Area dry

Ventura Water Reclamation Facility
Annual Report 2006

Receiving Water Stations

Month	R1 Ammonia MG/L	R2 Ammonia MG/L	R3 Ammonia MG/L	R4 Ammonia MG/L	L5 Ammonia MG/L	R1 Total Kjeldahl Nitrogen MG/L	R2 Total Kjeldahl Nitrogen MG/L	R3 Total Kjeldahl Nitrogen MG/L	R4 Total Kjeldahl Nitrogen MG/L	L5 Total Kjeldahl Nitrogen MG/L
Jan 2006	0.3	0.4	0.6	1.4	1.0	0.5	0.7	1.1	2.0	1.0
Feb 2006	0.5	0.7	0.6	1.1	0.5	5.1	0.9	0.7	***	4.6
Mar 2006	0.3	0.4	0.7	1.3	0.3	0.6	0.9	1.3	1.4	1.1
Apr 2006	1.3	0.7	0.7	0.9	0.6	5.1	2.9	5.5	1.4	6.1
May 2006	0.8	0.3	0.3	0.8	0.6	0.8	2.0	1.7	3.0	1.7
Jun 2006	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	1.3	0.5	1.4	1.4
Jul 2006	0.1	<0.1	<0.1	0.2	<0.1	1.3	1.8	0.9	1.1	0.7
Aug 2006	<0.1	<0.1	0.1	<0.1	<0.1	0.9	2.6	2.0	2.8	0.9
Sep 2006	0.2	0.2	0.3	0.2	0.2	1.8	3.8	3.9	2.7	2.3
Oct 2006	0.4	<0.1	<0.1	<0.1	<0.1	2.5	3.3	2.0	2.9	3.5
Nov 2006	0.2	0.4	0.3	0.4	0.5	1.5	1.6	1.8	1.4	1.5
Dec 2006	0.3	0.4	0.4	0.2	0.4	2.3	1.4	1.6	1.5	1.5
Minimum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	0.5	1.1	0.7
Maximum	1.3	0.7	0.7	1.4	0.6	5.1	3.8	5.5	3.0	6.1
Average	0.4	0.3	0.4	0.6	0.4	1.9	1.9	1.9	1.9	2.2

Ventura Water Reclamation Facility
Annual Report 2006

Receiving Water Stations

Month	R1 Total Phosphorus MG/L	R2 Total Phosphorus MG/L	R3 Total Phosphorus MG/L	R4 Total Phosphorus MG/L	L5 Total Phosphorus MG/L	R1 Chlorophyll A MG/L	R2 Chlorophyll A MG/L	R3 Chlorophyll A MG/L	R4 Chlorophyll A MG/L	L5 Chlorophyll A MG/L
Jan 2006	0.38	0.39	0.77	1.60	1.00	0.007	<0.002	<0.002	0.005	<0.002
Feb 2006	0.47	0.34	0.71	2.35	0.48	0.004	0.029	0.014	0.022	0.003
Mar 2006	0.36	0.38	1.01	2.01	0.60	0.003	0.015	0.003	0.017	0.004
Apr 2006	6.37	0.59	0.18	0.37	0.16	0.005	0.007	0.013	0.003	0.004
May 2006	0.05	0.36	1.06	1.83	0.11	0.025	0.069	0.037	0.003	0.047
Jun 2006	0.12	0.24	0.87	1.79	0.10	0.005	0.100	0.022	0.042	0.005
Jul 2006	0.03	0.13	0.61	1.67	0.06	0.010	0.013	0.011	0.018	0.008
Aug 2006	0.11	0.54	1.06	0.16	8.45	<0.002	0.005	0.002	0.008	0.003
Sep 2006	0.18	0.20	0.55	1.56	0.06	0.200	0.250	0.160	0.010	0.019
Oct 2006	0.10	0.18	0.94	0.86	0.29	0.110	0.250	0.095	0.081	0.110
Nov 2006	0.51	2.40	2.45	2.51	1.43	0.006	0.020	0.015	<0.002	0.010
Dec 2006	2.30	3.23	4.93	4.54	2.97	0.003	<0.002	<0.002	0.003	<0.002
Minimum	0.03	0.13	0.18	0.16	0.06	<0.002	<0.002	<0.002	<0.002	<0.002
Maximum	6.37	3.23	4.93	4.54	8.45	0.200	0.250	0.160	0.081	0.110
Average	0.92	0.75	1.26	1.77	1.31	0.032	0.064	0.031	0.018	0.018

Chlorophyll A Analyzed By Aquatic Bioasssay Consulting Laboratories, INC., Ventura, CA 93001

Ventura Water Reclamation Facility
Annual Report 2006

Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 1 Run 1, Aluminum mg/kg/dry	Filter Press 1 Run 1, Antimony mg/kg/dry	Filter Press 1, Run 1, Arsenic mg/kg/dry	Filiter Press 1, Run 1, Barium mg/kg/dry	Filter Press 1 Run 1, Beryillum mg/kg/dry	Filter Press 1 Run 1, Cadmium mg/kg/dry	Filter Press 1 Run 1, Chromium mg/kg/dry	Filter Press 1 Run 1, Cobalt mg/kg/dry	Filter Press 1 Run 1, Copper mg/kg/dry
Jan 2006	5,900.0	<2.5	<2.5	330.0	<2.5	<2.5	16.0	14.9	855.0
Feb 2006	8,058.8	<2.9	<2.9	461.2	<2.9	<2.9	34.1	20.9	1,258.8
Mar 2006									
Apr 2006	5,154.3	<3.1	<3.1	330.2	<3.1	<3.1	25.9	9.5	950.6
May 2006	3,582.8	<3.1	<3.1	232.5	<3.1	<3.1	18.4	8.0	650.3
Jun 2006									
Jul 2006	6,273.3	9.9	<3.1	732.9	<3.1	<3.1	21.1	6.3	88.8
Aug 2006	5,555.6	<2.9	<2.9	350.9	<2.9	<2.9	26.3	25.1	994.2
Sep 2006									
Oct 2006	6,604.8	<3.0	<3.0	373.7	<3.0	<3.0	18.0	12.0	1,257.5
Nov 2006									
Dec 2006									
Minimum	3,582.8	<2.5	<2.5	232.5	<2.5	<2.5	16.0	6.3	88.8
Maximum	8,058.8	9.9	<3.1	732.9	<3.1	<3.1	34.1	25.1	1,258.8
Average	5,875.7	<3.9	<2.9	401.6	<2.9	<2.9	22.8	13.8	865.0

Analyses Perfomed by American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility
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Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 1 Run 1, Lead mg/kg/dry	Filter Press 1 Run 1, Mercury mg/kg/dry	Filter Press 1 Run 1, Molybdenum mg/kg/dry	Filter Press 1 Run 1, Nickel mg/kg/dry	Filter Press 1 Run 1, Selenium mg/kg/dry	Filter Press 1 Run 1, Silver mg/kg/dry	Filter Press 1 Run 1, Thallium mg/kg/dry	Filter Press 1 Run 1, Tin mg/kg/dry	Filter Press 1 Run 1, Vanadium mg/kg/dry	Filiter Press 1 Run 1, Zinc mg/kg/dry
Jan 2006	16.0	1.0	20.5	25.8	24.0	15.0	<2.5	<25.0	4.0	745.0
Feb 2006	28.2	1.8	21.8	27.3	32.4	17.6	<2.9	33.5	8.2	941.2
Mar 2006										
Apr 2006	14.2	<1.2	15.4	26.6	20.4	13.0	<3.1	<30.9	6.2	814.8
May 2006	9.2	<1.2	15.3	17.7	17.8	9.2	<3.1	<30.7	6.1	584.0
Jun 2006										
Jul 2006	13.0	<1.2	6.2	43.7	9.3	<3.1	<3.1	<31.1	<3.1	987.6
Aug 2006	15.2	<1.2	24.6	29.8	25.7	8.8	<2.9	<29.2	5.8	877.2
Sep 2006										
Oct 2006	15.0	1.8	25.1	29.9	30.5	18.0	<3.0	<29.9	11.4	688.6
Nov 2006										
Dec 2006										
Minimum	9.2	1.0	6.2	17.7	9.3	<3.1	<2.5	<25.0	<3.1	584.0
Maximum	28.2	1.8	25.1	43.7	32.4	18.0	<3.1	33.5	11.4	987.6
Average	15.8	<1.3	18.4	28.7	22.9	12.1	<2.9	<30.0	6.4	805.5

Analyses Performed by American Scientific Laboratories, Los Angeles, CA 90065

Ventura Water Reclamation Facility
Annual Report 2006

Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 1 Run 2, Aluminum mg/kg/dry	Filter Press 1 Run 2, Antimony mg/kg/dry	Filter Press 1 Run 2, Arsenic mg/kg.dry	Filter Press 1 Run 2, Barium mg/kg/dry	Filter Press 1 Run 2, Beryllium mg/kg.dry	Filter Press 1 Run 2, Cadmium mg/kg/dry	Filter Press 1 Run 2, Chromium mg/kg/dry	Filter Press 1 Run 2, Cobalt mg/kg/dry	Filter Press 1 Run 2, Copper mg/kg/dry
Jan 2006									
Feb 2006						3.5	7.6		789.0
Mar 2006									
Apr 2006									
May 2006						<3.3	5.8		1,168.3
Jun 2006									
Jul 2006									
Aug 2006									
Sep 2006									
Oct 2006									
Nov 2006 *	7,133.3	<3.3	<3.3	466.7	<3.3	<3.3	34.0	13.3	1,486.7
Dec 2006									
Minimum	7,133.3	<3.3	<3.3	466.7	<3.3	<3.3	5.8	13.3	789.0
Maximum	7,133.3	<3.3	<3.3	466.7	<3.3	3.5	34.0	13.3	1,486.7
Average	7,133.3	<3.3	<3.3	466.7	<3.3	<3.4	15.8	13.3	1,148.0

*Analyses Perfomed by American Scientific Laboratories, Los Angeles, CA 90065
Analyzed by City of San Buenaventura - Wastewater Laboratory, Ventura, CA 93001

Ventura Water Reclamation Facility
Annual Report 2006

Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 1 Run 2, Lead mg/kg/dry	Filter Press 1 Run 2, Mercury mg/kg/dry	Filter Press 1 Run 2, Molybdenum mg/kg.dry	Filter Press 1 Run 2, Nickel mg/kg/dry	Filter Press 1 Run 2, Selenium mg/kg.dry	Filter Press 1 Run 2, Silver mg/kg/dry	Filter Press 1 Run 2, Thallium mg/kg/dry	Filter Press 1 Run 2, Tin mg/kg/dry	Filter Press 1 Run 2, Vanadium mg/kg.dry	Filter Press 1 Run 2, Zinc mg/kg/dry
Jan 2006										
Feb 2006	<3.3			28.2		3.20				1,079.1
Mar 2006										
Apr 2006										
May 2006	4.6			15.9		4.10				1,070.1
Jun 2006										
Jul 2006										
Aug 2006										
Sep 2006										
Oct 2006										
Nov 2006 *	23.3	1.3	28.67	36.0	31.3	17.33	<3.3	34.7	12.7	1,213.3
Dec 2006										
Minimum	<3.3	1.3	28.67	15.9	31.3	3.20	<3.3	34.7	12.7	1,070.1
Maximum	23.3	1.3	28.67	36.0	31.3	17.33	<3.3	34.7	12.7	1,213.3
Average	10.4	1.3	28.67	26.7	31.3	8.21	<3.3	34.7	12.7	1,120.8

*Analyses Performed by American Scientific Laboratories, Los Angeles, CA 90065
Analyzed by City of San Buenaventura - Wastewater Laboratory, Ventura, CA 93001

Ventura Reclamation Facility
Annual Report 2006

Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 2 Run 1, Aluminum - mg/kg/dry	Filter Press 2 Run 1, Antimony mg/kg.dry	Filter Press 2 Run 1, Arsenic mg/kg/dry	Filter Press 2 Run 1, Barium mg/kg/dry	Filter Press 2 Run 1, Beryllium mg/kg/dry	Filter Press 2 Run 1, Cadmium mg/kg/dry	Filter Press 2 Run 1, Chromium mg/kg/dry	Filter Press 2 Run 1, Cobalt mg/kg/dry	Filter Press 2 Run 1, Copper mg/kg/dry
Jan 2006									
Feb 2006						3.44	2.4		900.2
Mar 2006									
Apr 2006									
May 2006						<3.30	5.5		843.2
Jun 2006									
Jul 2006									
Aug 2006									
Sep 2006									
Oct 2006									
Nov 2006 *	4,753.3	<3.3	<3.3	313.3	<3.3	<3.33	24.7	9.3	1,000.0
Dec 2006									
Minimum	4,753.3	<3.3	<3.3	313.3	<3.3	<3.30	2.4	9.3	843.2
Maximum	4,753.3	<3.3	<3.3	313.3	<3.3	3.44	24.7	9.3	1,000.0
Average	4,753.3	<3.3	<3.3	313.3	<3.3	<3.36	10.9	9.3	914.5

*Analyses Peformed By American Scientific Laboratories, Los Angeles, CA 90065
Analyses Peformed By City of San Buenaventura - Wastewater Laboratories, Ventura, CA 93001

Ventura Reclamation Facility

Annual Report 2006

Soild Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 2 Run 1, Lead mg/kg/dry	Filter Press 2, Run 1, Mercury mg/kg.dry	Filter Press 2 Run 1, Molybdenum mg/kg/dry	Filter Press 2 Run 1, Nickel mg/kg/dry	Filter Press 2 Run1, Selenium mg/kg/dry	Filter Press 2 Run 1, Silver mg/kg/dry	Filter Press 2 Run 1, Thallium mg/kg/dry	Filter Press 2 Run 1, Tin mg/kg/dry	Filter Press 2 Run 1, Vanadium mg/lkg/dry	Filter Press 2, Run 1, Zinc mg/kg/dry
Jan 2006										
Feb 2006	<3.3			17.9		1.3				967.7
Mar 2006										
Apr 2006										
May 2006	5.3			14.7		3.4				1,017.8
Jun 2006										
Jul 2006										
Aug 2006										
Sep 2006										
Oct 2006										
Nov 2006 *	14.0	2.7	18.7	24.7	20.7	10.0	<3.3	<33.3	10.0	800.0
Dec 2006										
Minimum	<3.3	2.7	18.7	14.7	20.7	1.3	<3.3	<33.3	10.0	800.0
Maximum	14.0	2.7	18.7	24.7	20.7	10.0	<3.3	<33.3	10.0	1,017.8
Average	7.5	2.7	18.7	19.1	20.7	4.9	<3.3	<33.3	10.0	928.5

*Analyses Performed by American Scientific Laboratories, Los Angeles, CA 90065
Analysis Performed by City of San Buenavenutra - Wastewater Laboratory, Ventura, CA 93001

Ventura Reclamation Facility
Annual Report 2006

Solid Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 2 Run 2, Aluminum mg/kg/dry	Filter Press 2 Run 2, Antimony mg/kg/dry	Filter Press 2 Run 2, Arsenic mg/kg/dry	Filter Press 2 Run 2, Barium mg/kg/.dry	Filter Press 2 Run 2, Beryllium mg/kg/dry	Filter Press 2 Run2, Cadmium mg/kg/dry	Filter Press 2 Run 2, Chromium mg/kg/dry	Filter Press 2 Run 2, Cobalt mg/kg/dry	Filter Press 2 Run 2, Copper mg/kg/dry
Jan 2006									
Feb 2006						3.1	<3.3		652.3
Mar 2006									
Apr 2006									
May 2006						<3.3	4.6		814.9
Jun 2006									
Jul 2006									
Aug 2006									
Sep 2006									
Oct 2006									
Nov 2006 *	5,061.0	<820.0	<3.0	323.2	<3.0	<3.0	26.8	10.4	1,036.6
Dec 2006									
Minimum	5,061.0	<820.0	<3.0	323.2	<3.0	<3.0	<3.3	10.4	652.3
Maximum	5,061.0	<820.0	<3.0	323.2	<3.0	<3.3	26.8	10.4	1,036.6
Average	5,061.0	<820.0	<3.0	323.2	<3.0	<3.1	11.6	10.4	834.6

*Analyses Peformed By American Scientific Laboratories, Los Angeles, CA 90065
Analyses Peformed By City of San Buenaventura - Wastewater Laboratories, Ventura, CA 93001

Ventura Reclamation Facility

Annual Report 2006

Soild Streams

Total Metals - Dewatered Digested Sludge

Month	Filter Press 2 Run 2, Lead mg/kg/dry	Filter Press 2 Run2, Mercury mg/kg/dry	Filter Press 2 Run 2, Molybdenum mg/kg/dry	Filter Press 2 Run 2, Nickel mg/kg/dry	Filter Press 2 Run 2, Selenium mg/kg/dry	Filter Press 2 Run 2, Silver mg/kg/dry	Filter Press 2 Run 2, Thallium mg/kg/dry	Filter Press 2 Run 2, Tin mg/kg.dry	Filter Press 2 Run 2, Vanadium mg/kg/dry	Filter Press 2 Run 2, Zinc mg/kg/dry
Jan 2006										
Feb 2006	3.3			23.3		1.2				1,002.0
Mar 2006										
Apr 2006										
May 2006	4.1			19.8		1.9				852.0
Jun 2006										
Jul 2006										
Aug 2006										
Sep 2006										
Oct 2006										
Nov 2006*	15.2	4.3	20.7	26.2	23.8	11.6	<3.0	<30.5	7.3	853.7
Dec 2006										
Minimum	3.3	4.3	20.7	19.8	23.8	1.2	<3.0	<30.5	7.3	852.0
Maximum	15.2	4.3	20.7	26.2	23.8	11.6	<3.0	<30.5	7.3	1,002.0
Average	7.5	4.3	20.7	23.1	23.8	4.9	<3.0	<30.5	7.3	902.6

*Analyses Performed by American Scientific Laboratories, Los Angeles, CA 90065
Analysis Performed by City of San Buenavenutra - Wastewater Laboratory, Ventura, CA 93001

Ventura Water Reclamation Facility
Annual Report 2006

Solid Streams

Organics - Dewatered Digested Sludge

Month		Acetone mg/kg/dry	Chloromethane mg/kg/dry	Bis (2-Ethyylhexylphthalate) mg/kg/dry	1,4-Dichlorobenzene mg/kg/dry	Toluene mg/kg/dry	Xylene mg/kg/dry	TOX mg/kg/dry
February	Filter Press 1 Run 1	1.94	<0.18	<1.94	<0.06	<0.01	<0.04	<147.06
May	Filter Press 1 Run 1	<0.31	<0.18	4.57	<0.06	<0.01	<0.04	<153.37
August	Filter Press 1 Run 1	<0.29	<0.18	6.32	0.16	<0.01	<0.04	<146.20
November	Filter Press 1 Run 2	1.20	<0.22	11.27	<0.07	0.02	<0.04	0.06
Minimum		<0.29	<0.18	<1.94	<0.06	<0.01	<0.04	<153.37
Maximum		1.94	<0.22	11.27	0.16	0.02	<0.04	0.06
Average		0.85	<0.19	6.03	<0.09	<0.01	<0.04	<111.67

Analyses Performed by American Scientific Labortories, Los Angeles, CA 90065

Ventura Water Reclamation Facility

Annual Report 2006

Solid Streams

Total Metals - Dry Weight

Dissolverd Air Flotation System (Waste Activated Sludge)

Month	Cadmium mg/kg/dry	Chromium mg/kg dry	Copper mg/kg/dry	Lead mg/kg/dry	Nickel mg/kg/dry	Silver mg/kg/dry	Zinc mg/kg/dry
February	1.61	36.87	765.95	32.02	32.02	0.47	429.39
May	2.06	27.88	1,209.57	29.27	37.62	2.07	870.38
August	2.62	29.14	1,425.57	34.11	29.75	2.20	950.82
November	2.44	33.70	1,589.90	34.00	25.89	2.64	937.26
Annual Average	2.18	31.90	1,247.75	32.35	31.32	1.85	796.96

Gravity Thickener (Primary Sludge)

Month	Cadmium mg/kg/dry	Chromium mg/kg/dry	Copper mg/kg/dry	Lead mg/kg/dry	Nickel mg/kg/dry	Silver mg/kg/dry	Zinc mg/kg/dry
February	1.42	32.59	606.84	32.68	29.59	0.64	451.79
May	1.80	21.45	579.43	19.98	31.66	2.20	594.97
August	1.44	25.63	861.22	33.60	28.21	1.45	937.59
Novermber	1.83	25.94	841.46	35.96	27.45	1.49	1,123.39
Annual Average	1.62	32.59	722.24	30.56	29.23	1.45	776.94

Ventura Water Reclamation Facility

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Irrigation Reuse Flows

Month	Olivas Irrigation MGD	Buena Irrigation MGD	Marina Irrigation MGD	Irrigation Total MGD
Jan 2006	0.0010	0.1401	0.024	0.1649
Feb 2006	0.0094	0.1794	0.027	0.2158
Mar 2006	0.0025	0.0617	0.010	0.0744
Apr 2006	0.0029	0.2017	0.024	0.2286
May 2006	0.0100	0.2736	0.030	0.3072
Jun 2006	*	0.4426	0.063	0.5054
Jul 2006	*	0.5299	0.067	0.5973
Aug 2006	0.3674	0.4325	0.070	0.8698
Sep 2006	0.2528	0.3370	0.062	0.6511
Oct 2006	*	0.2462	0.050	0.2961
Nov 2006	0.1211	0.1580	0.056	0.3356
Dec 2006	0.0760	0.1068	0.031	0.2135
Minimum	0.0000	0.0000	0.000	0.000
Maximum	1.0400	1.1160	0.149	1.939
Average	0.0702	0.2595	0.043	0.372

*No Data

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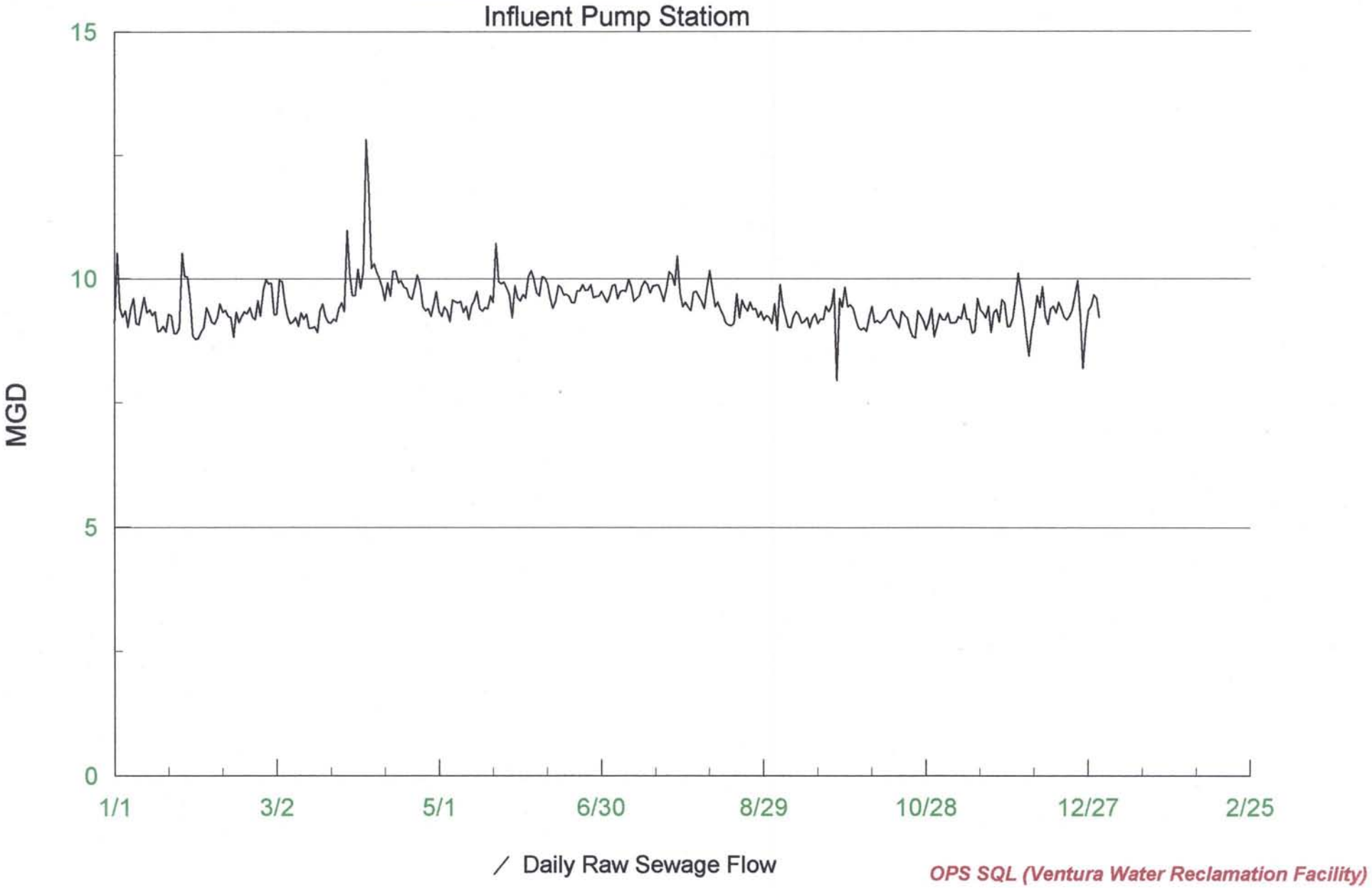

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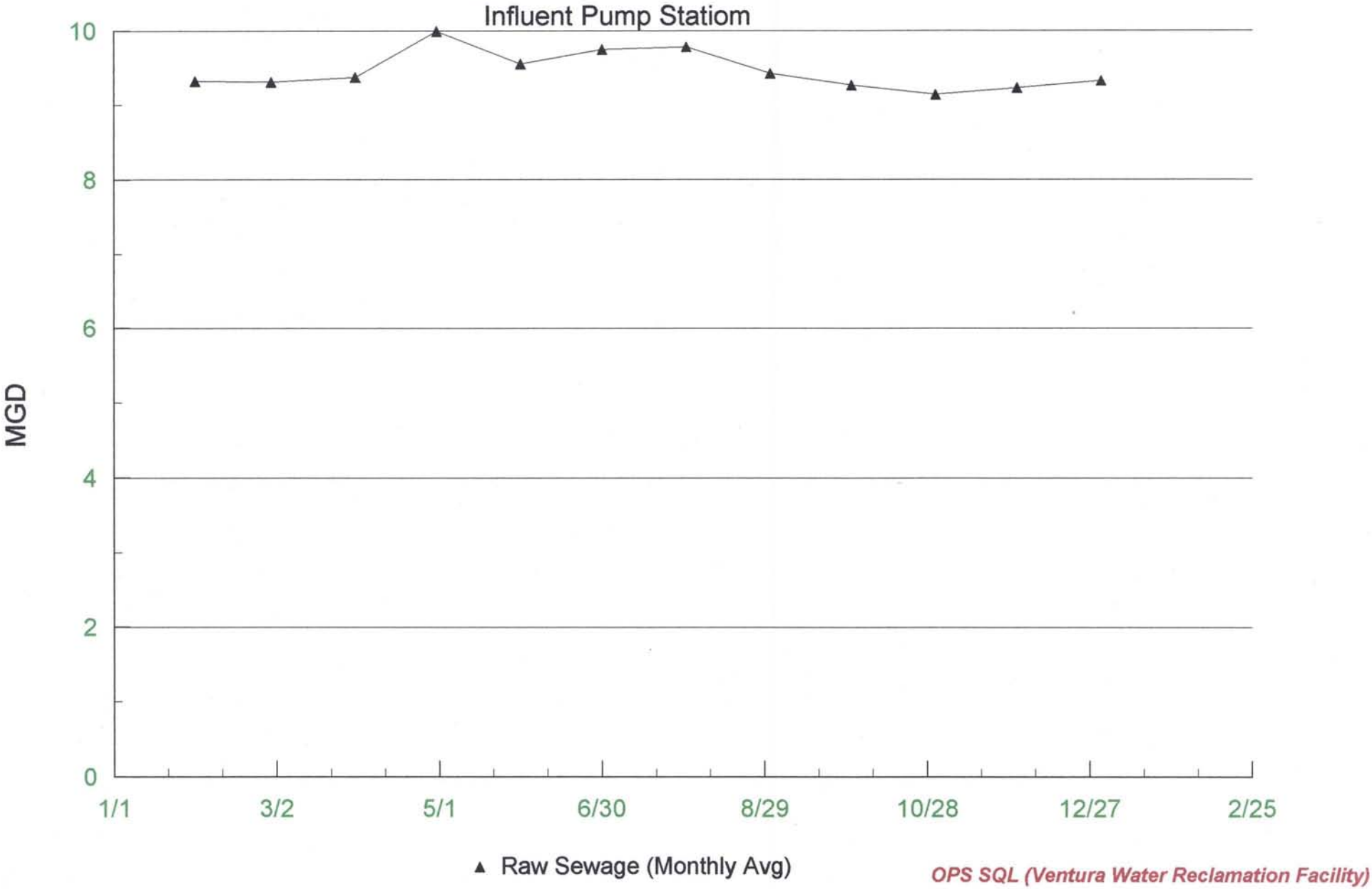

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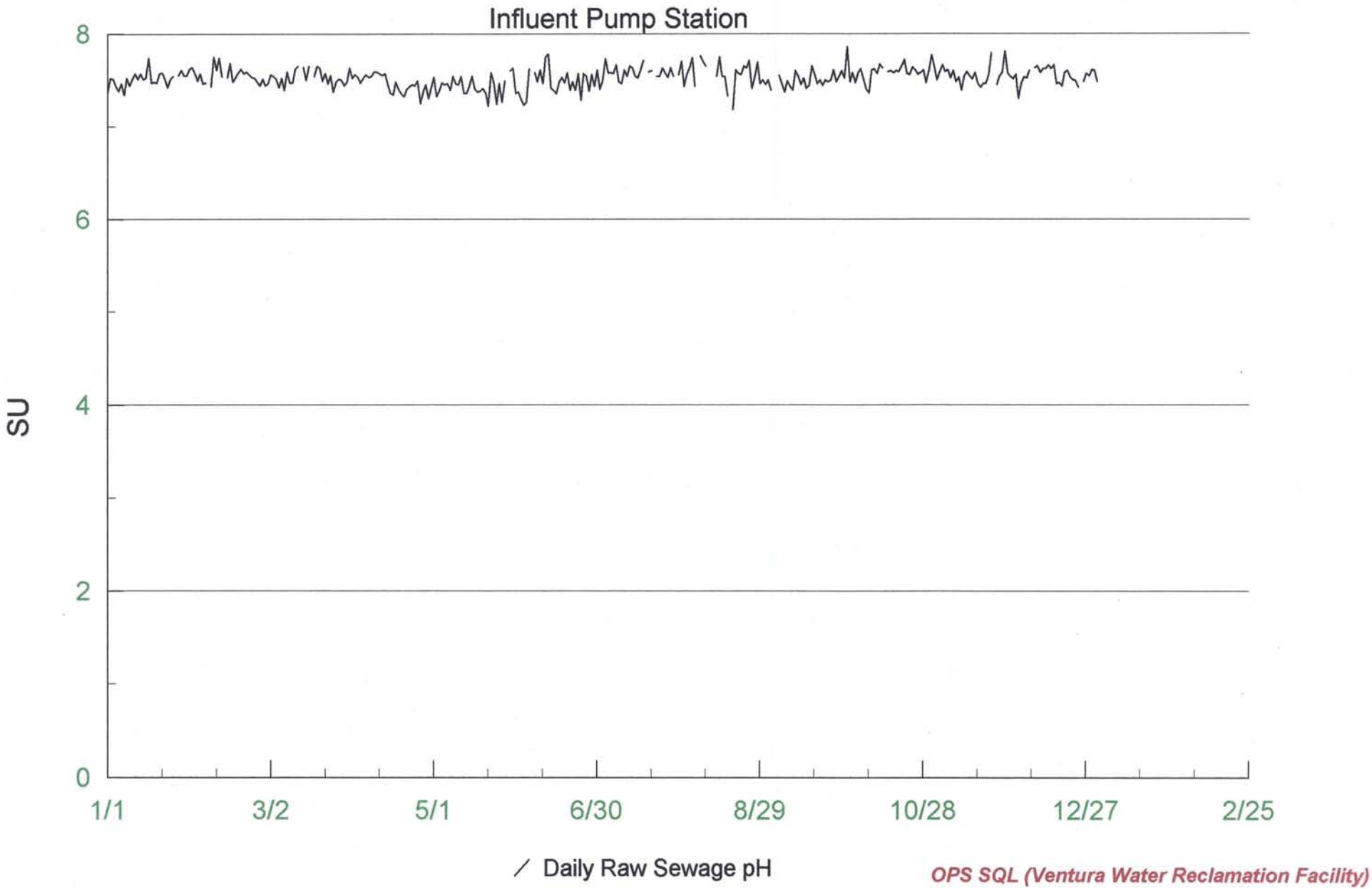

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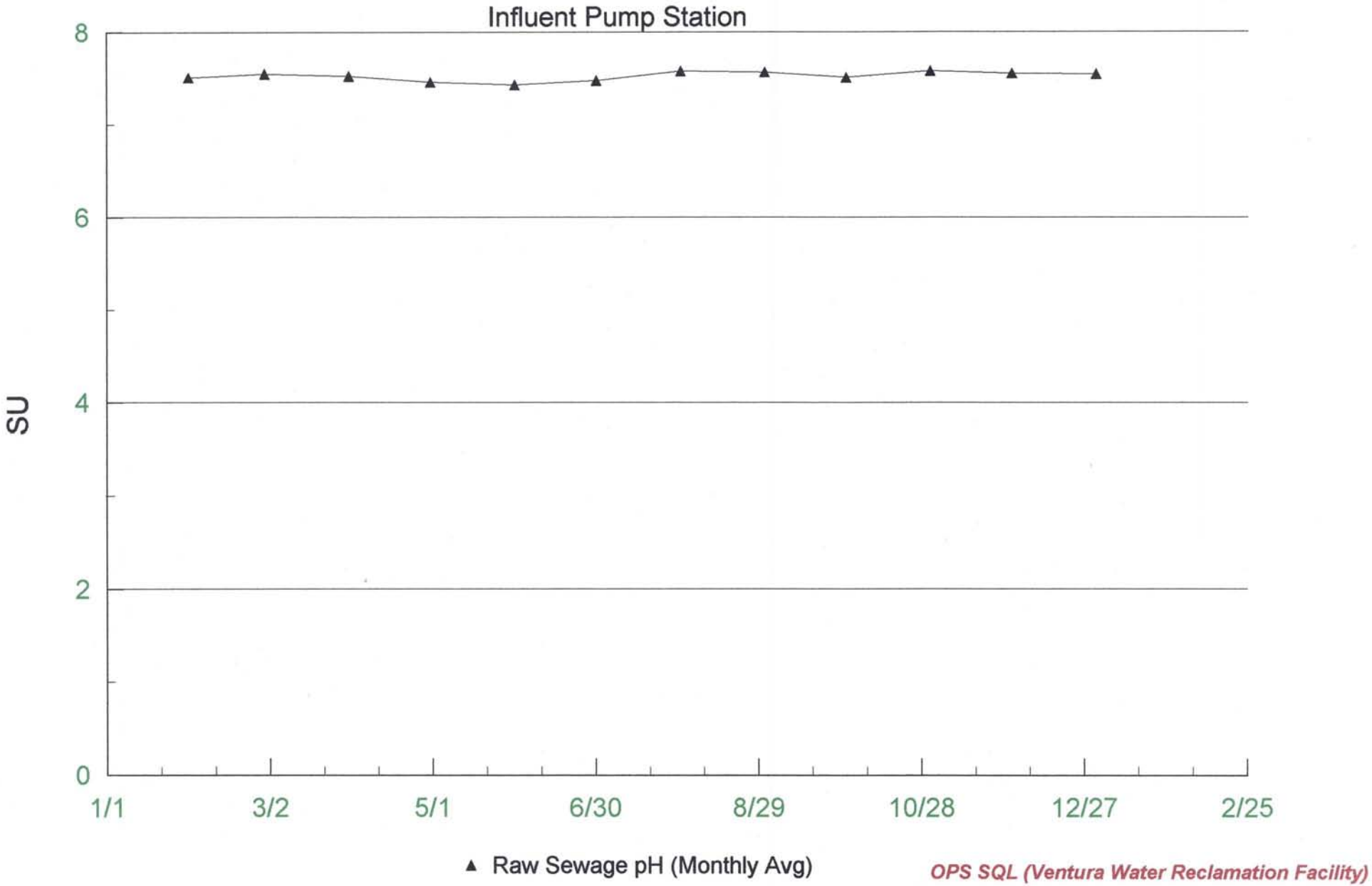

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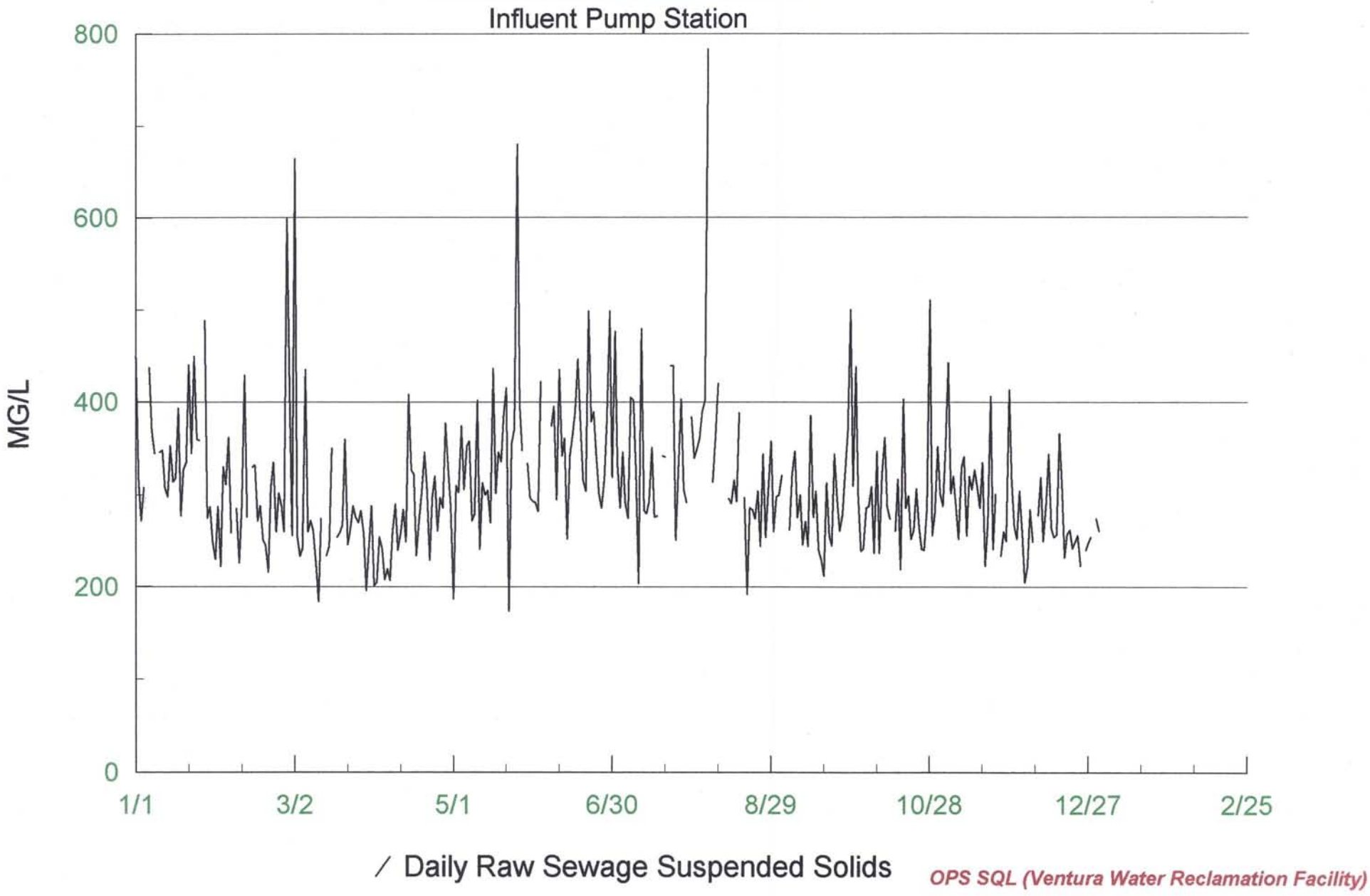

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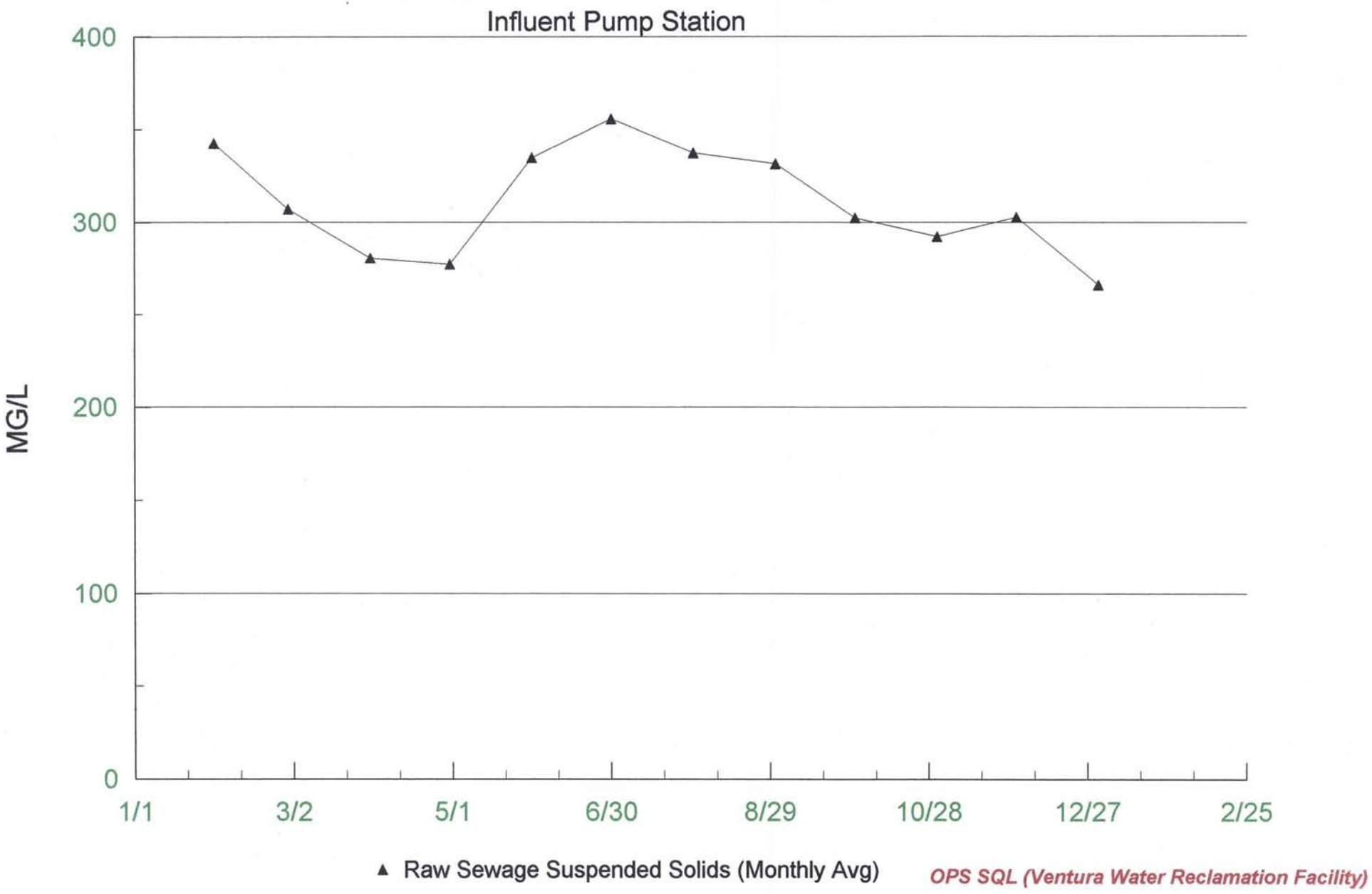

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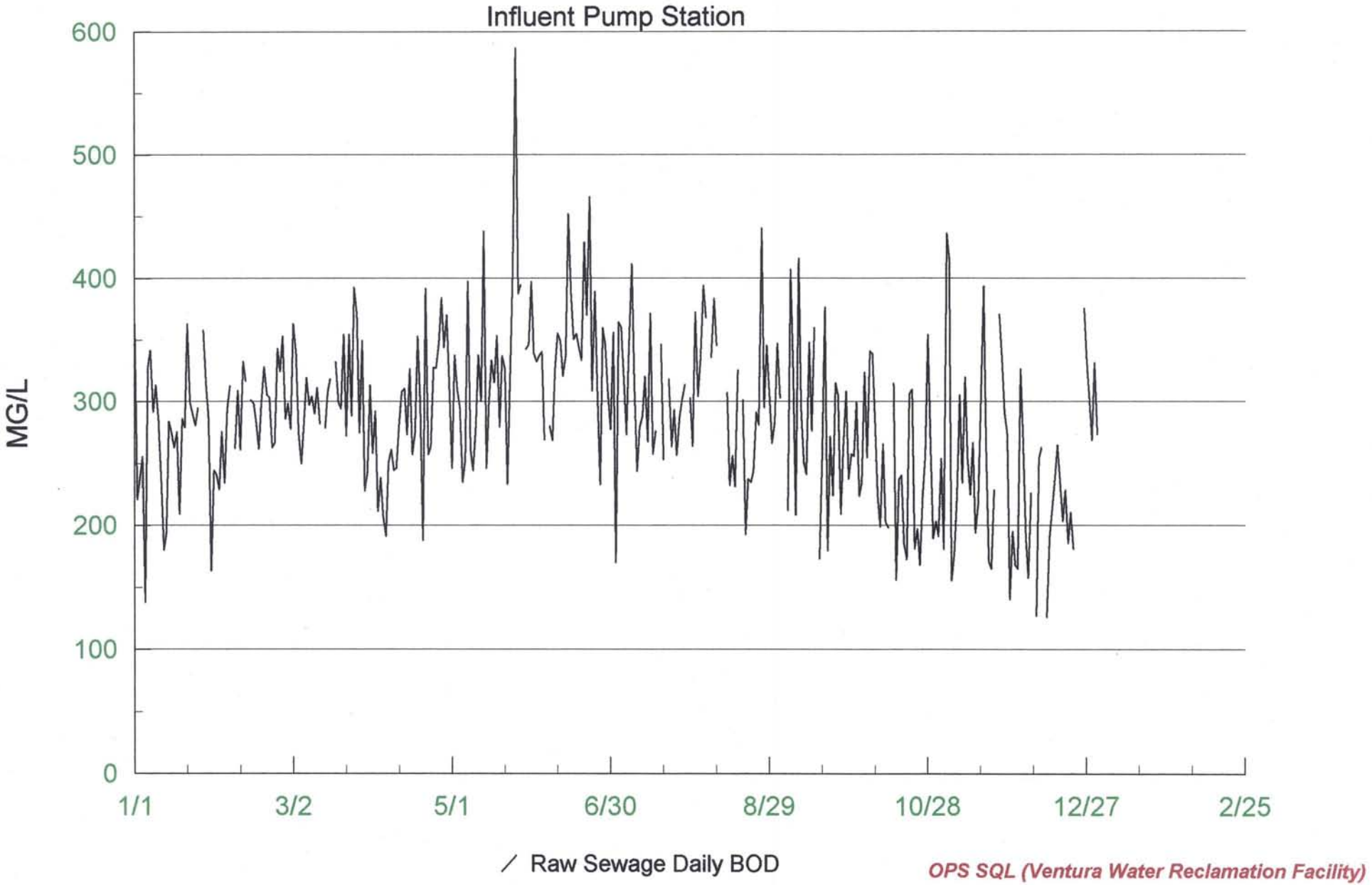

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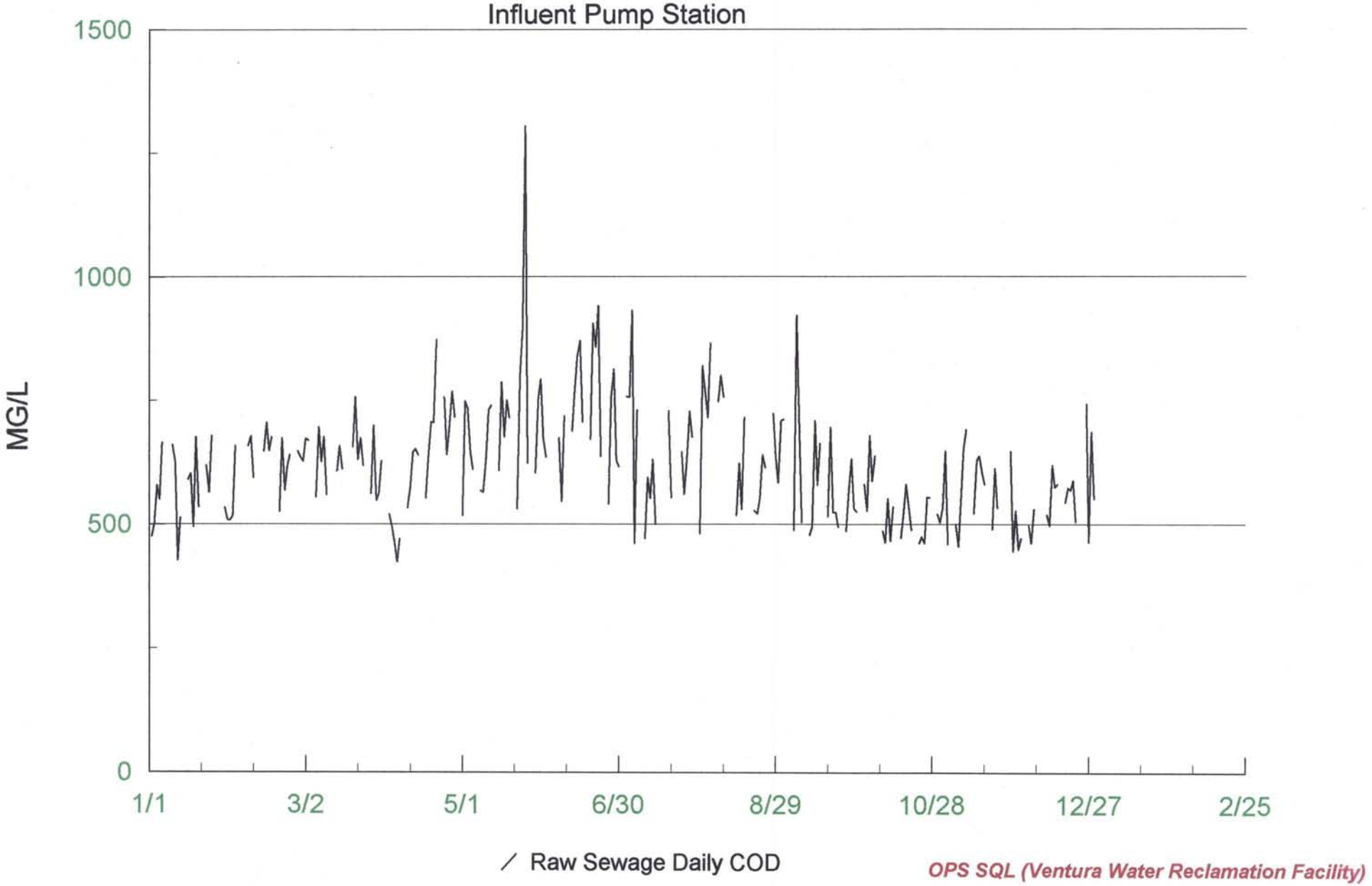

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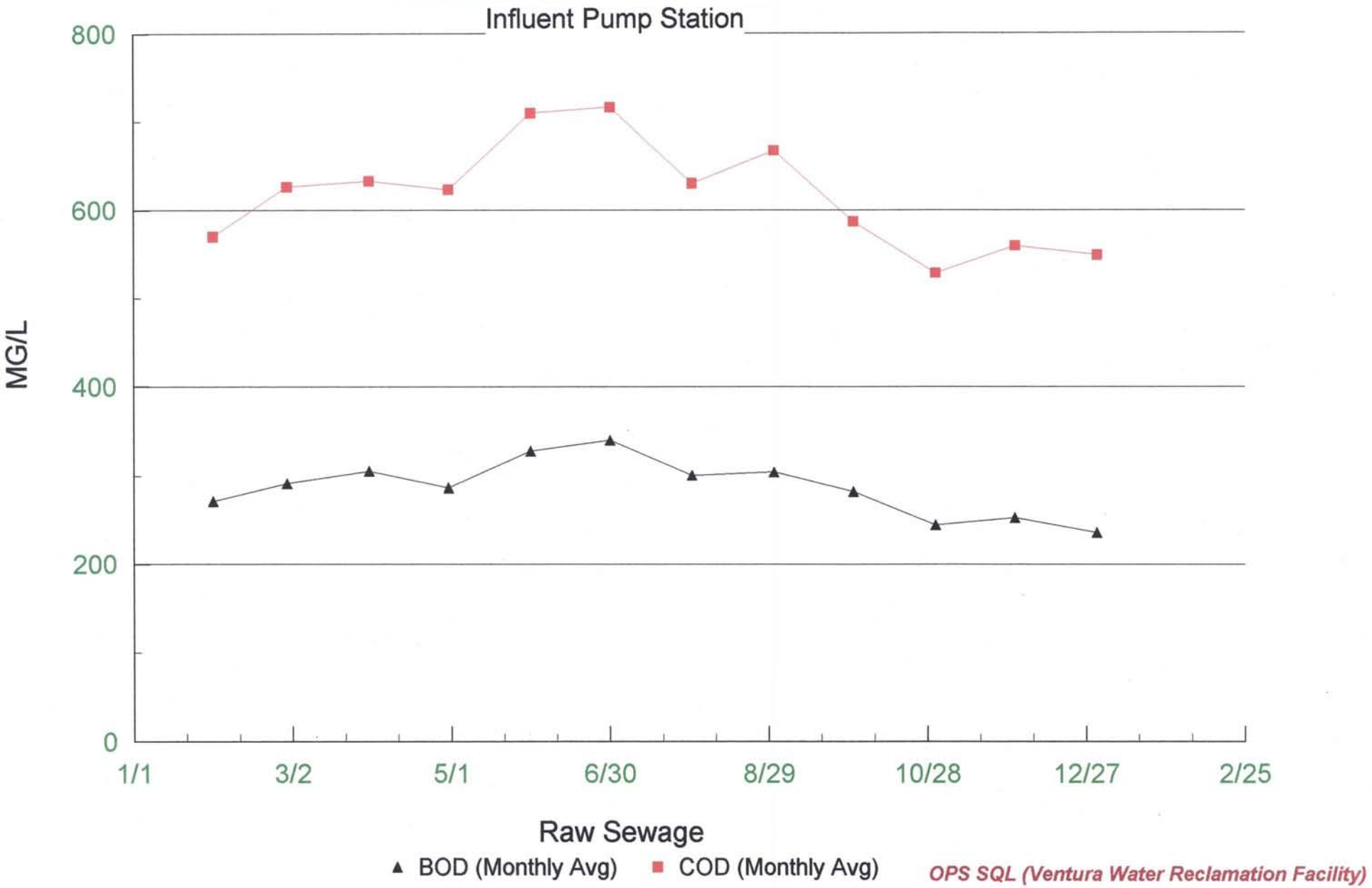

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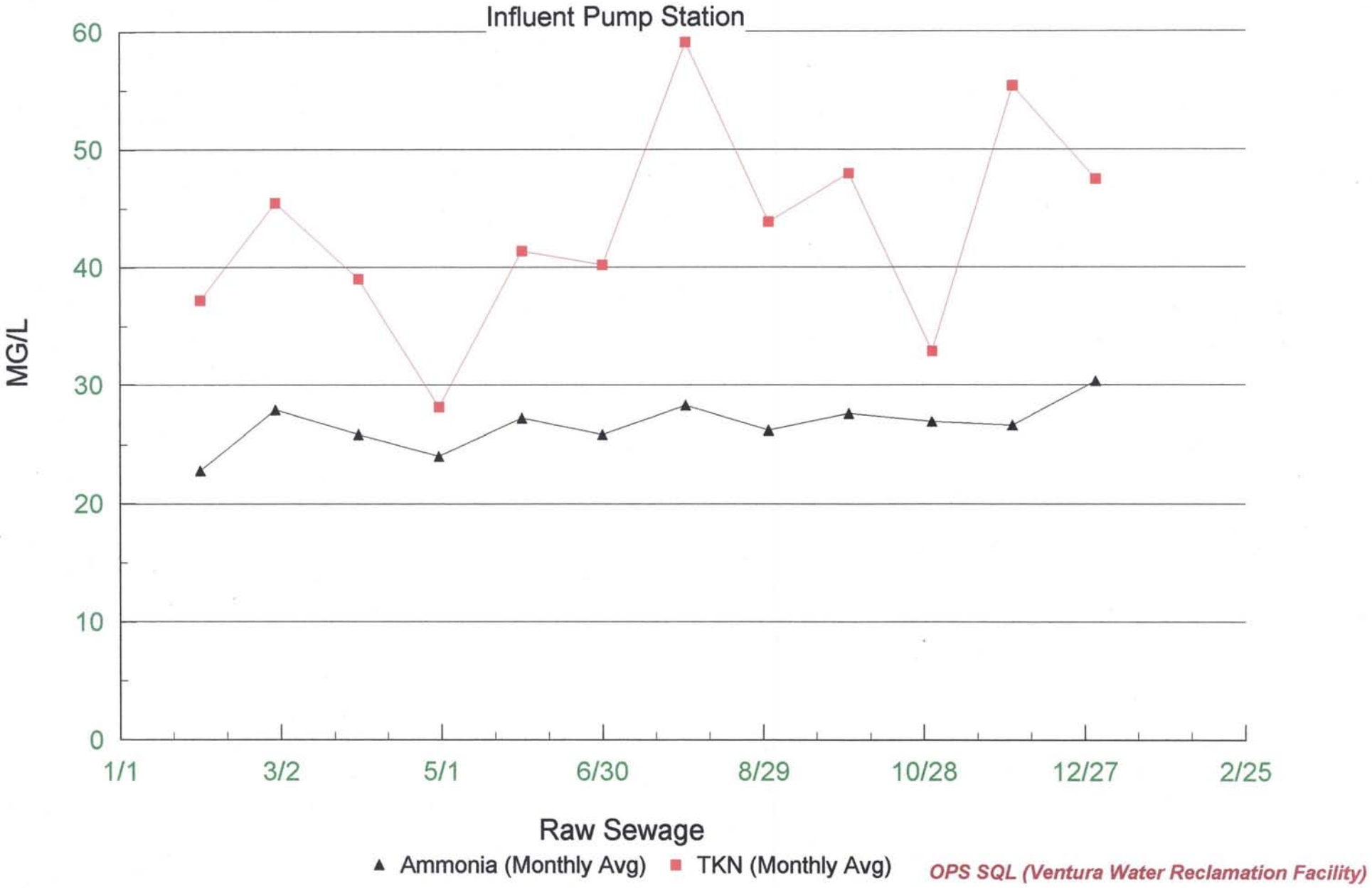

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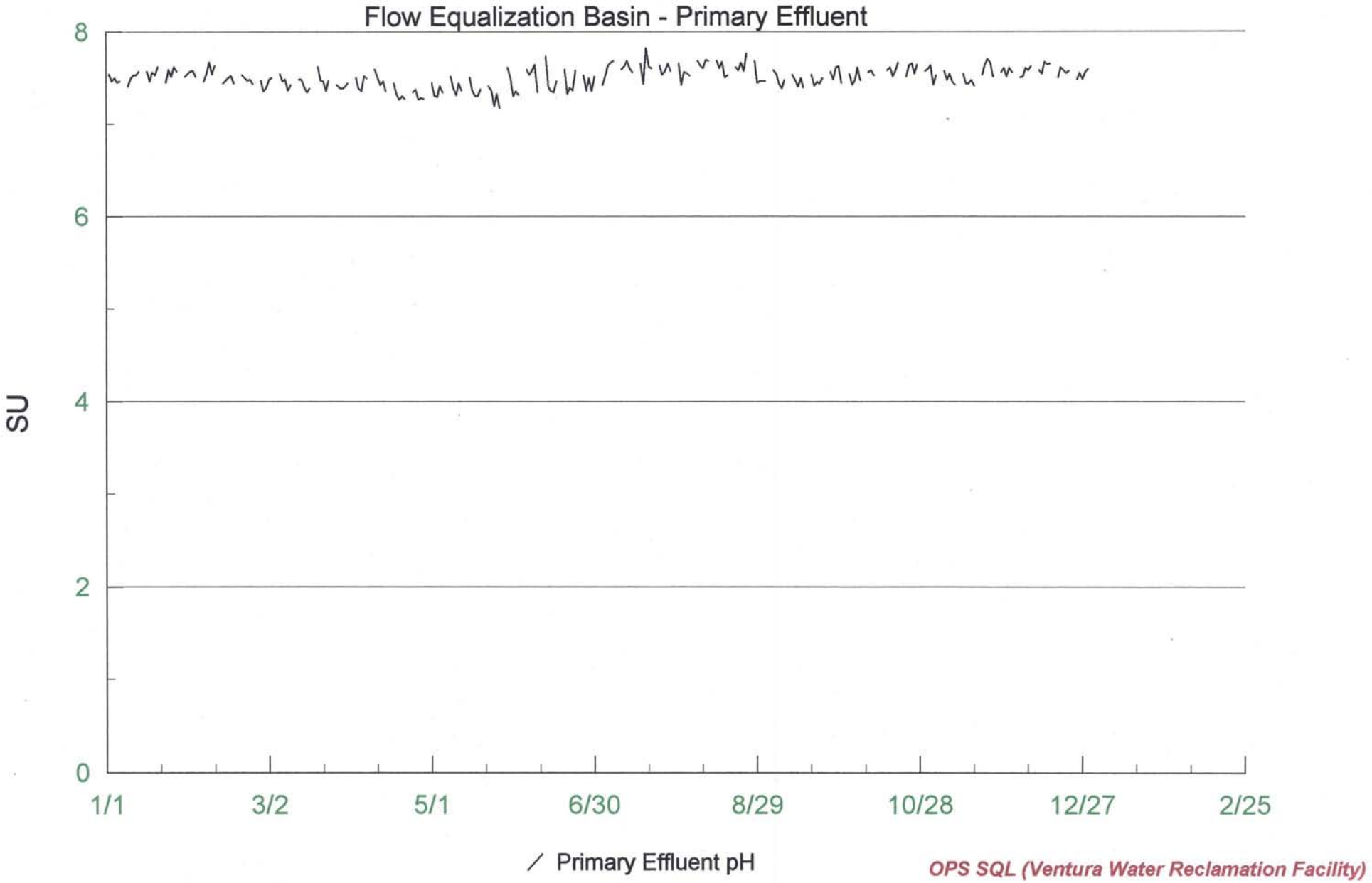

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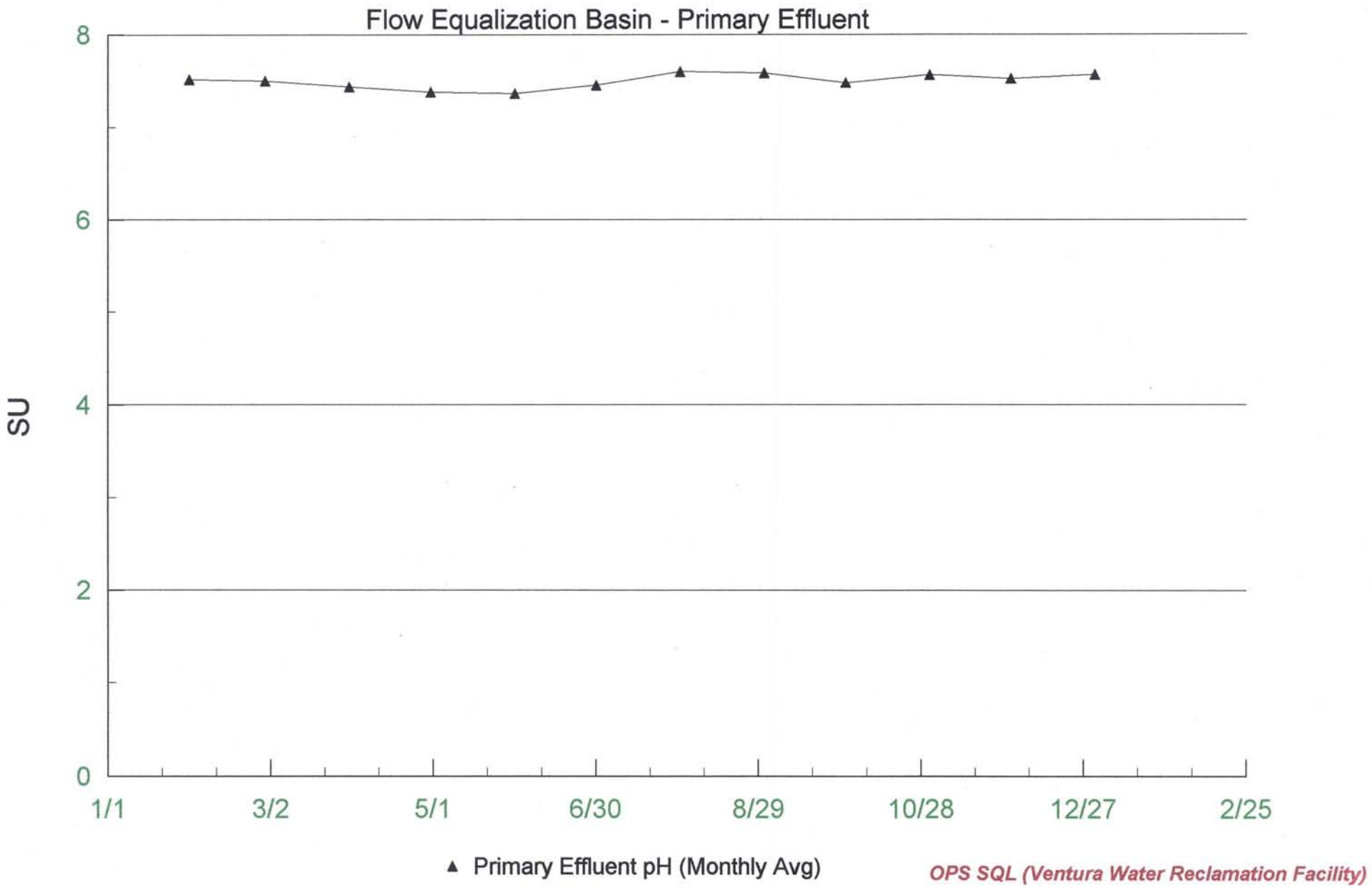

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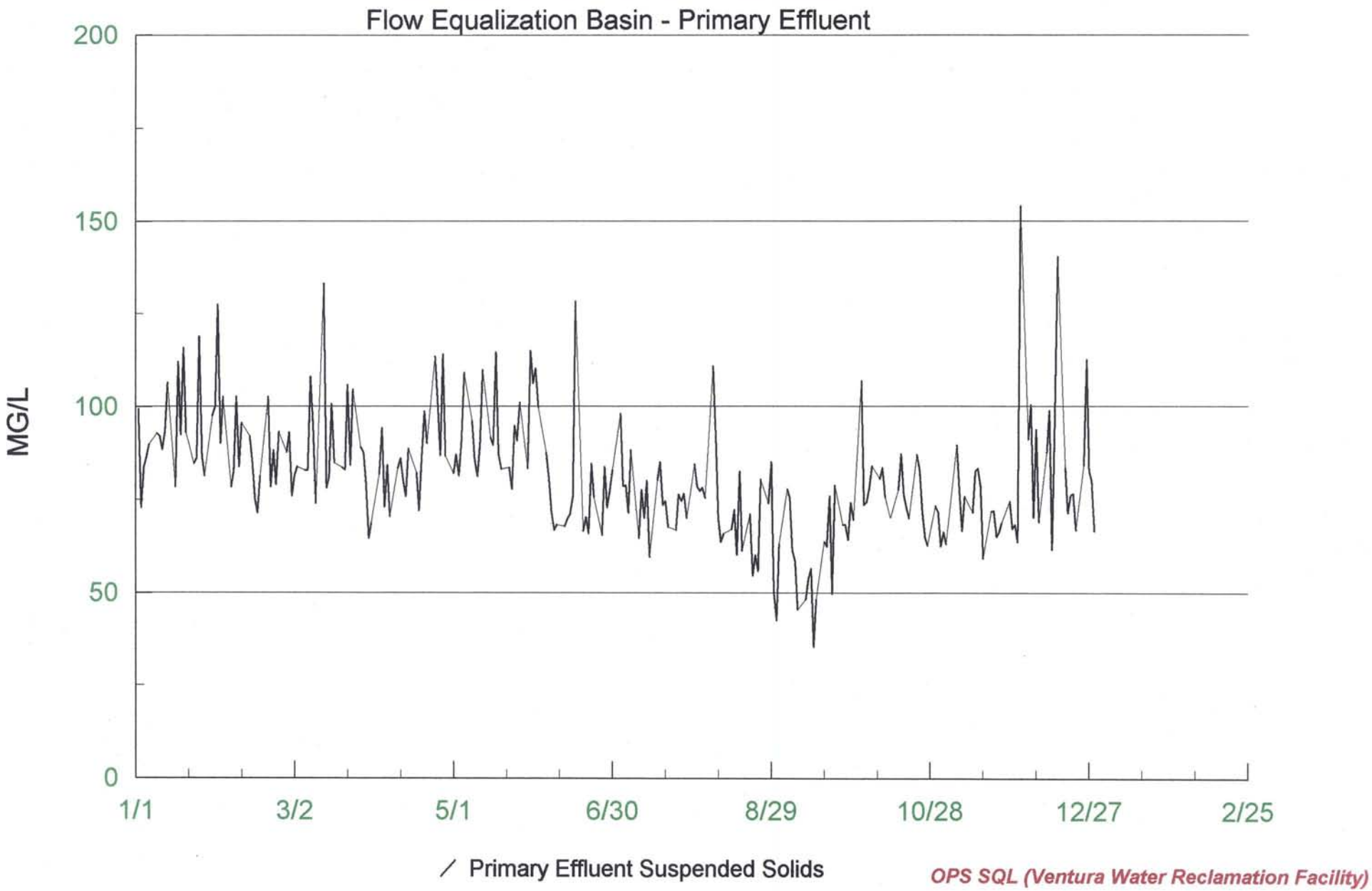

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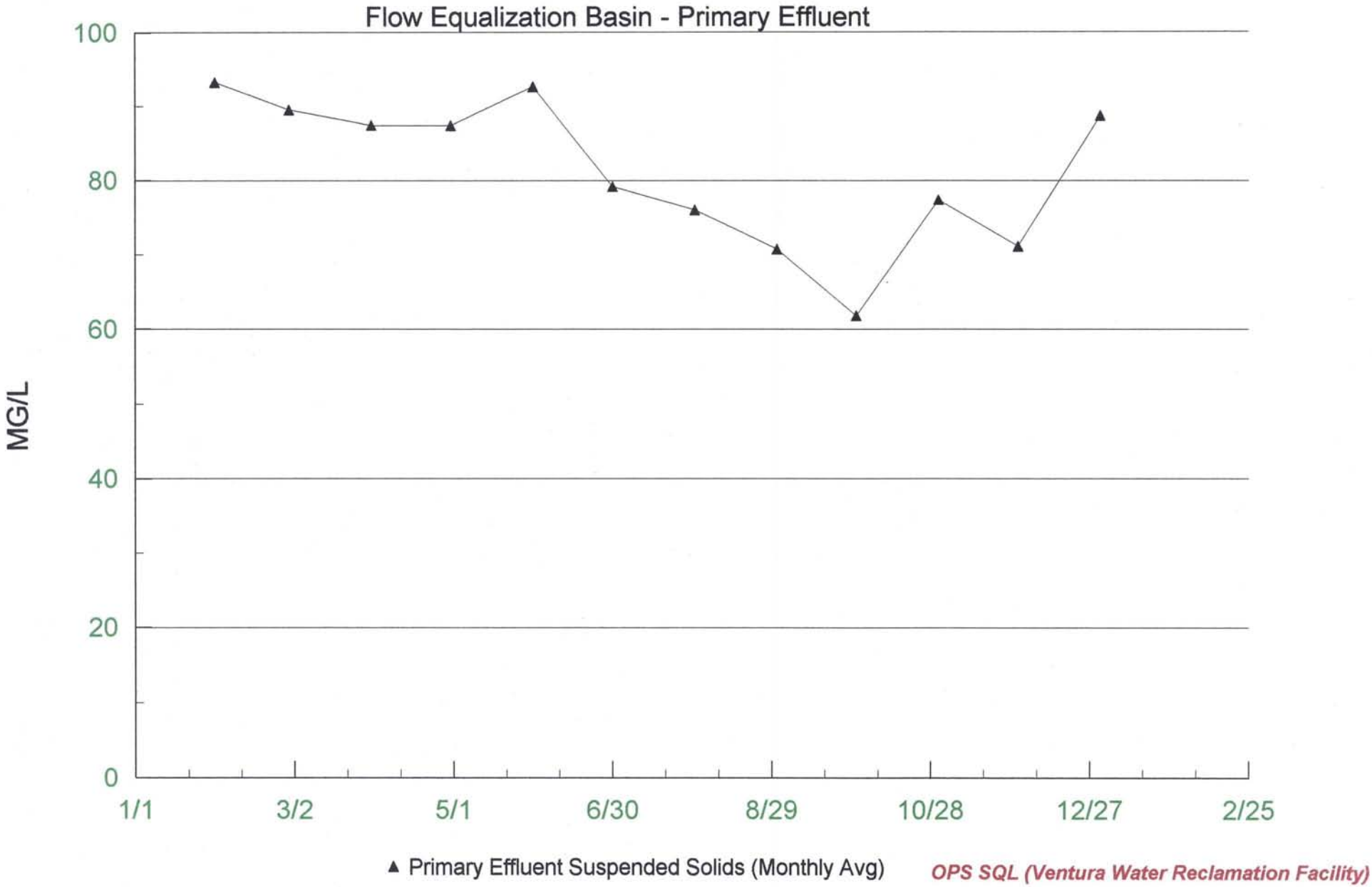

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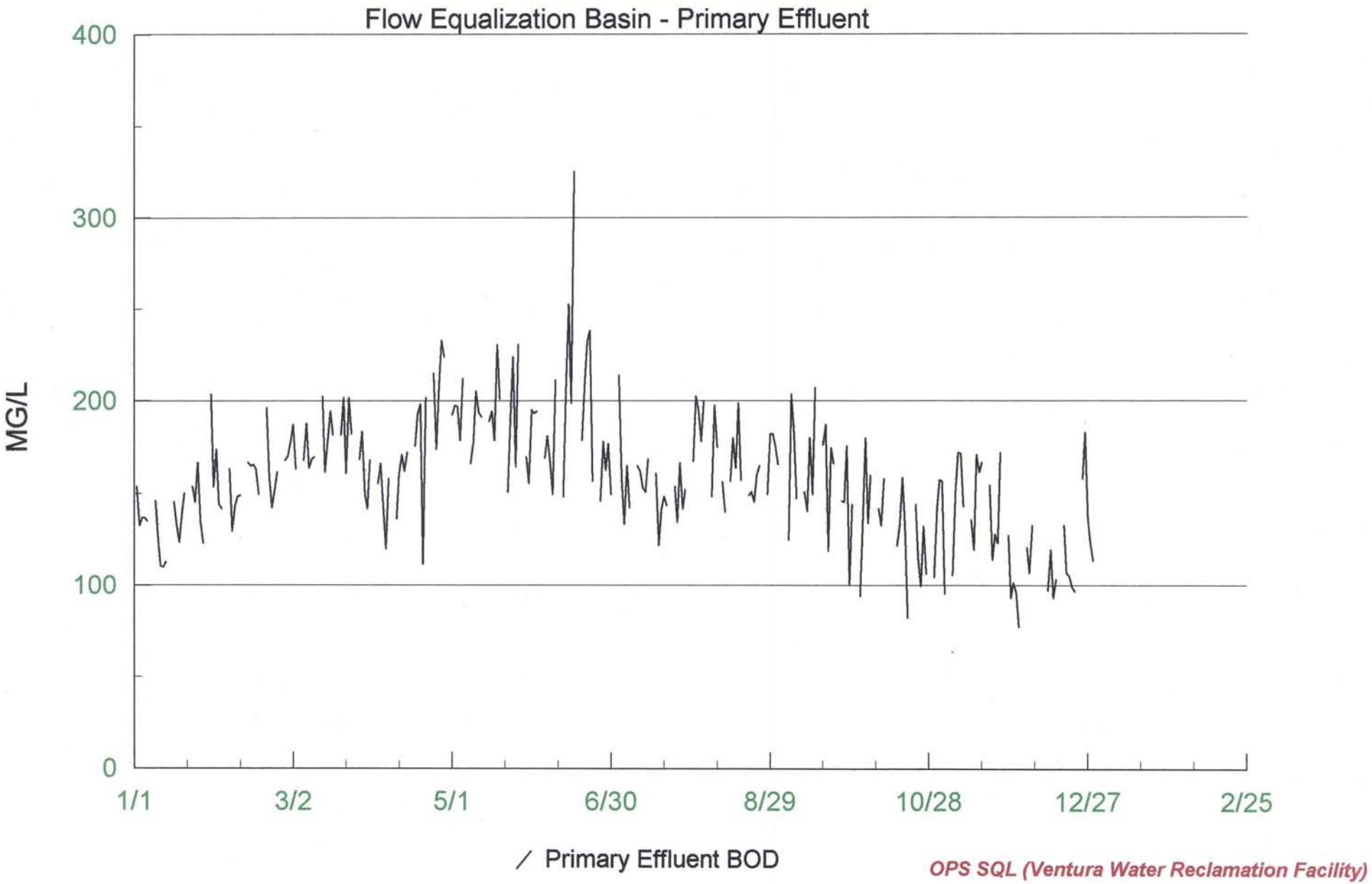

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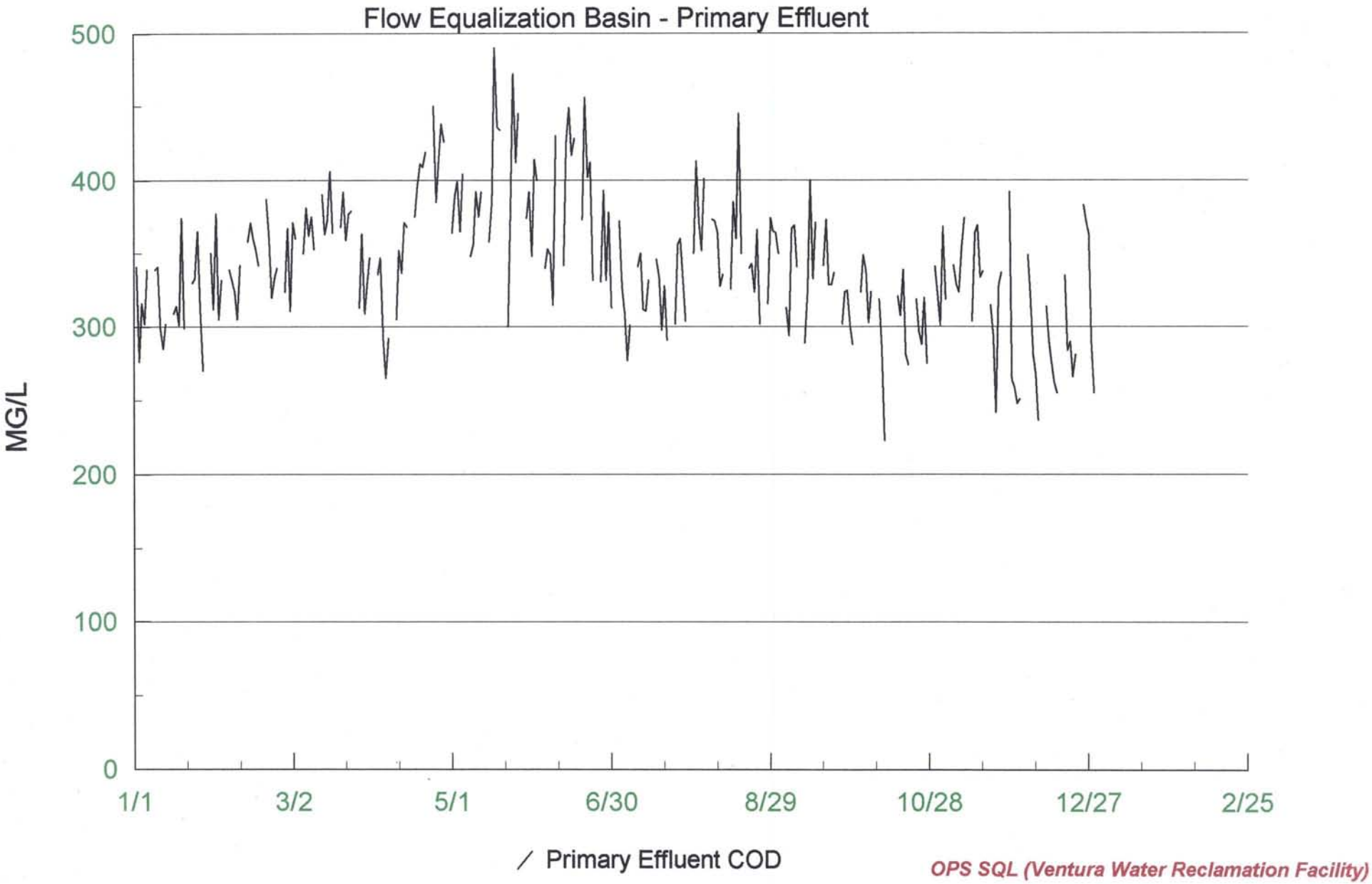

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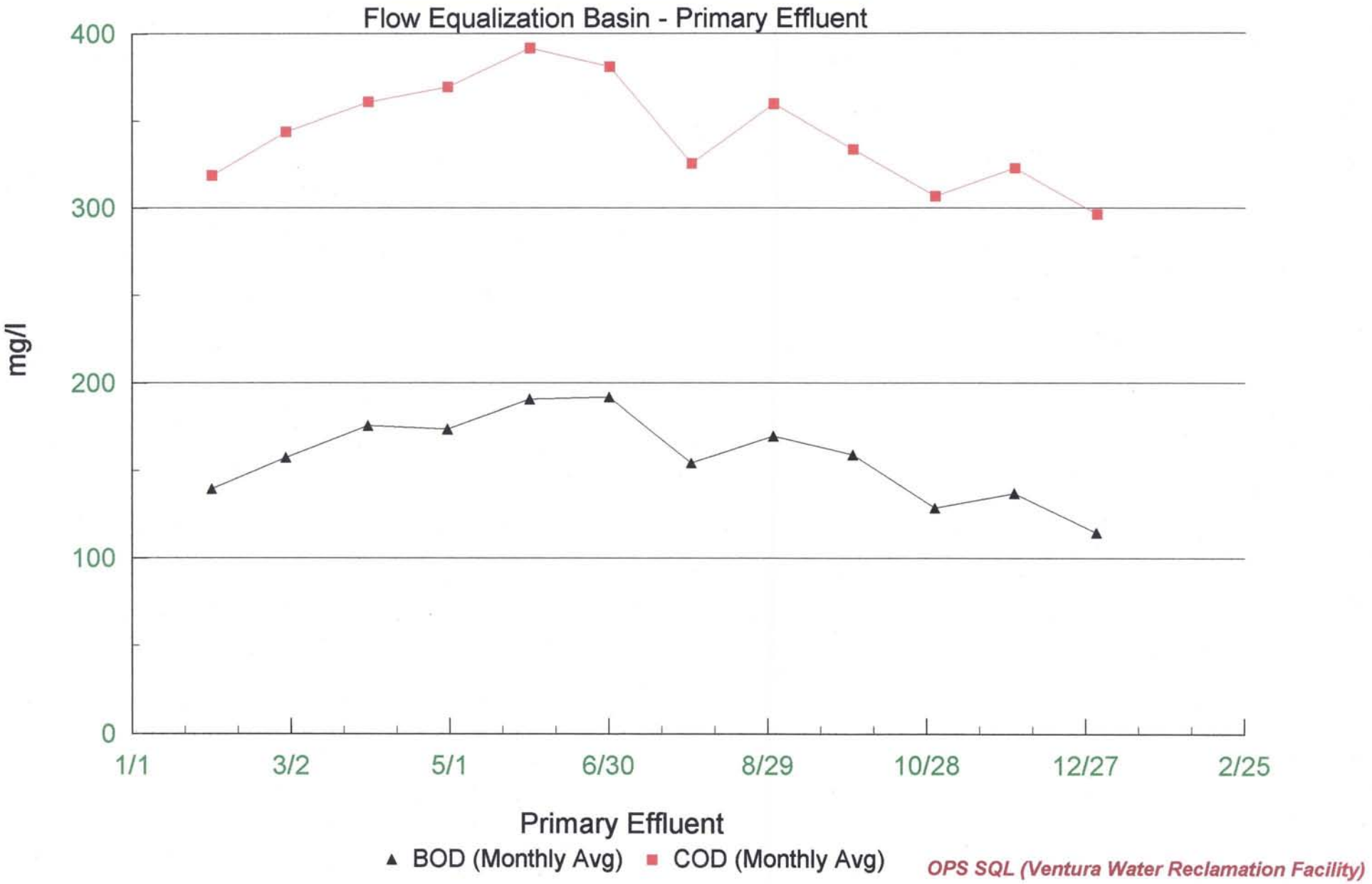

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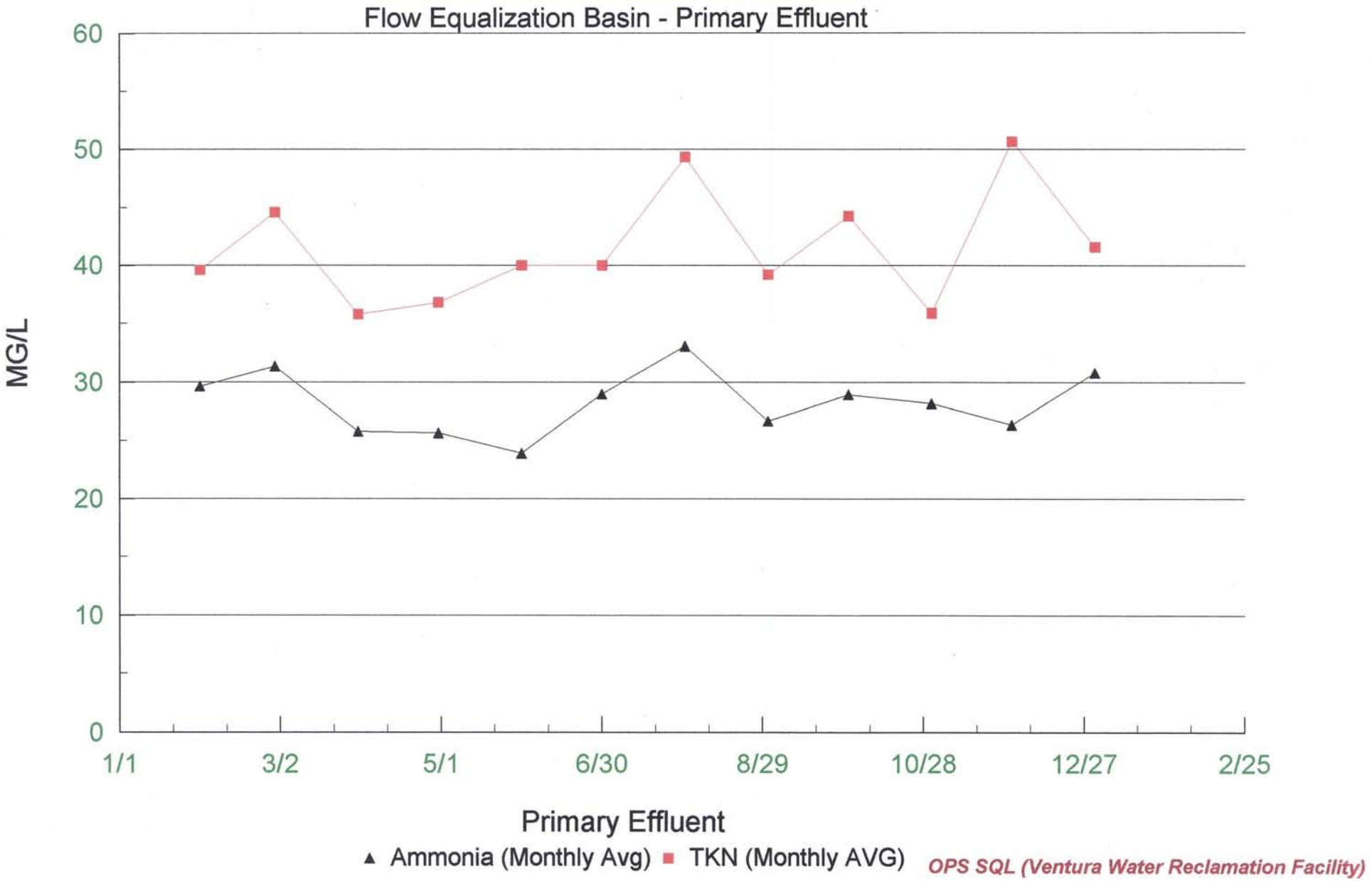

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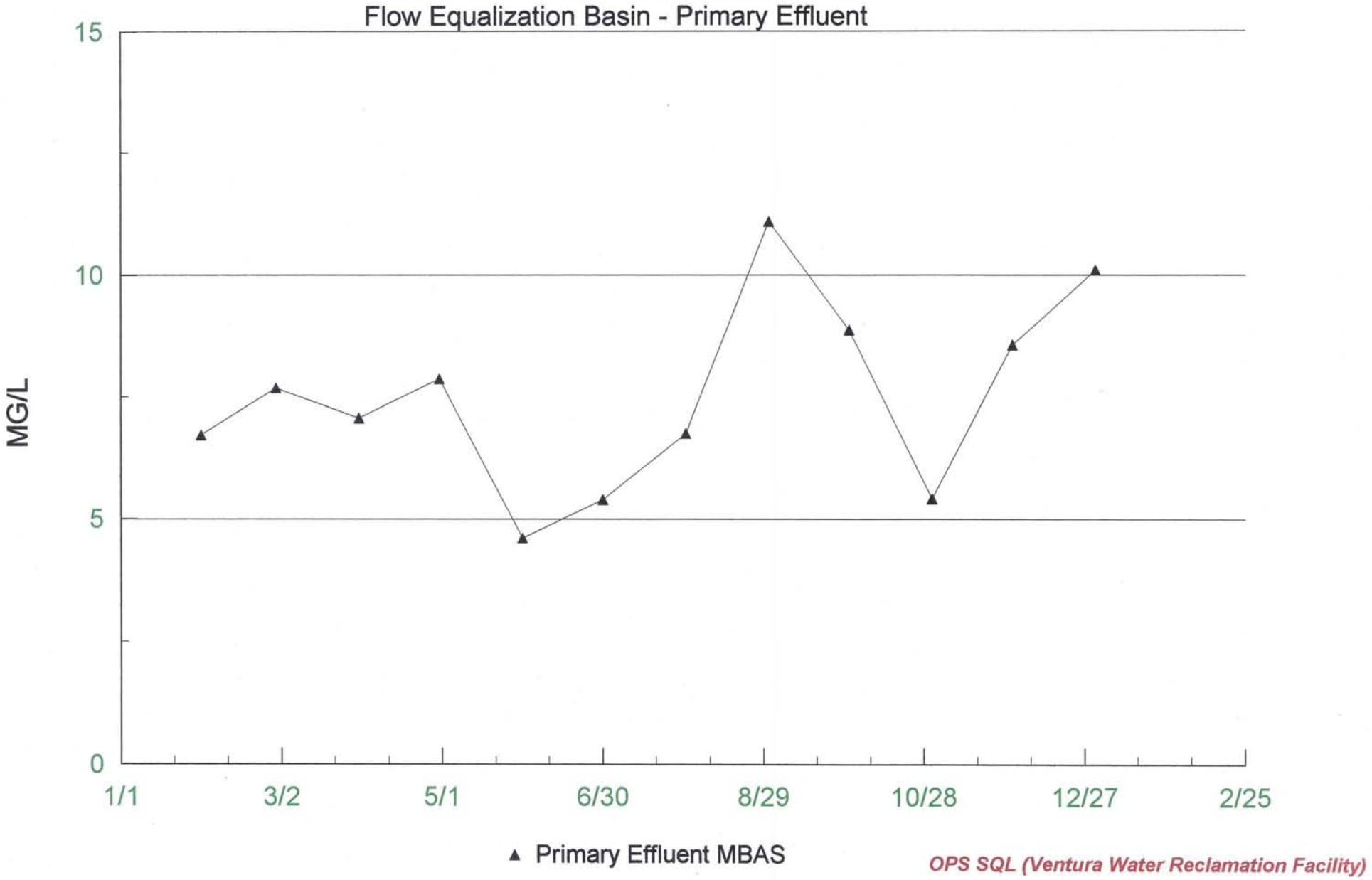

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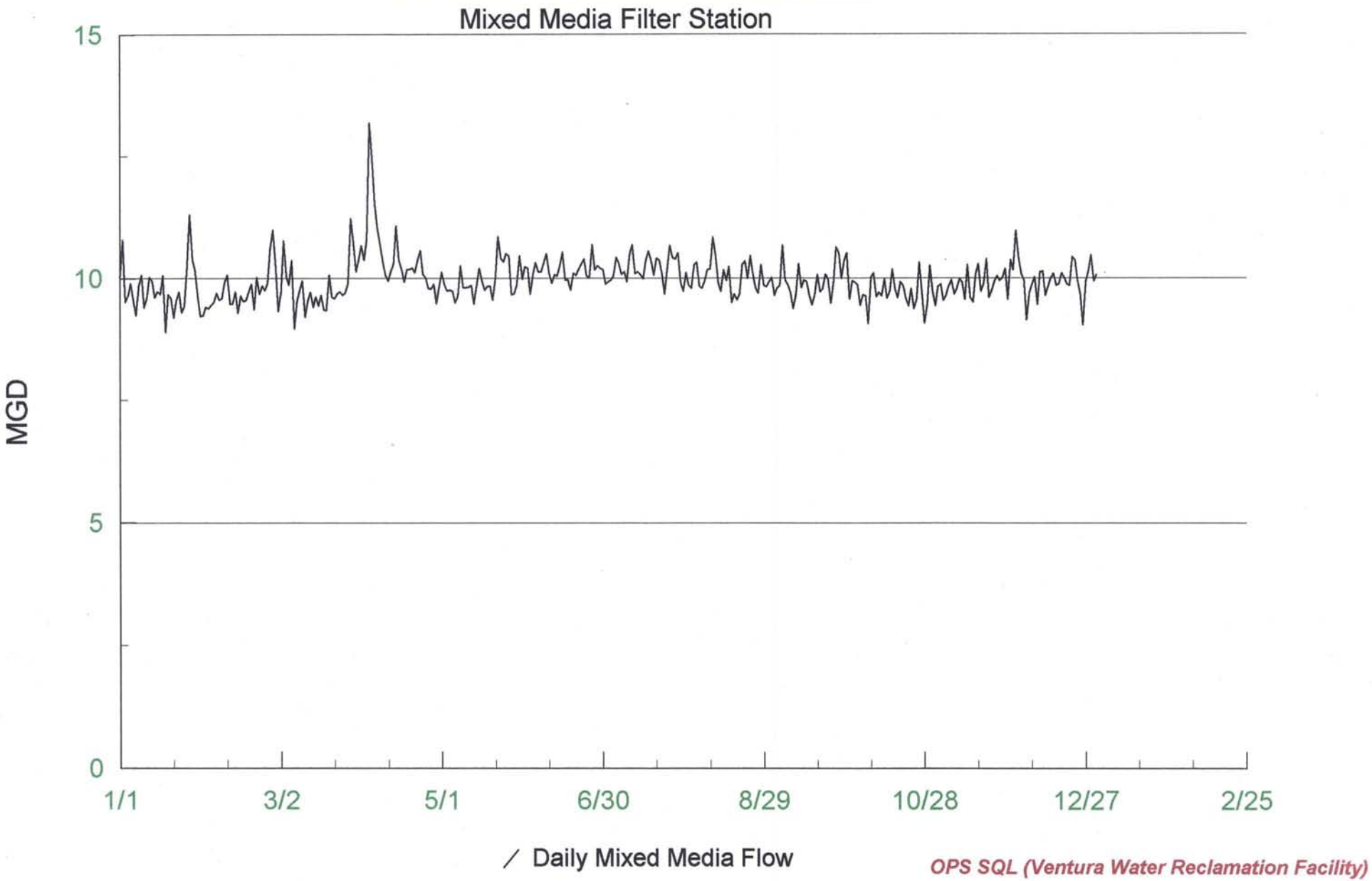

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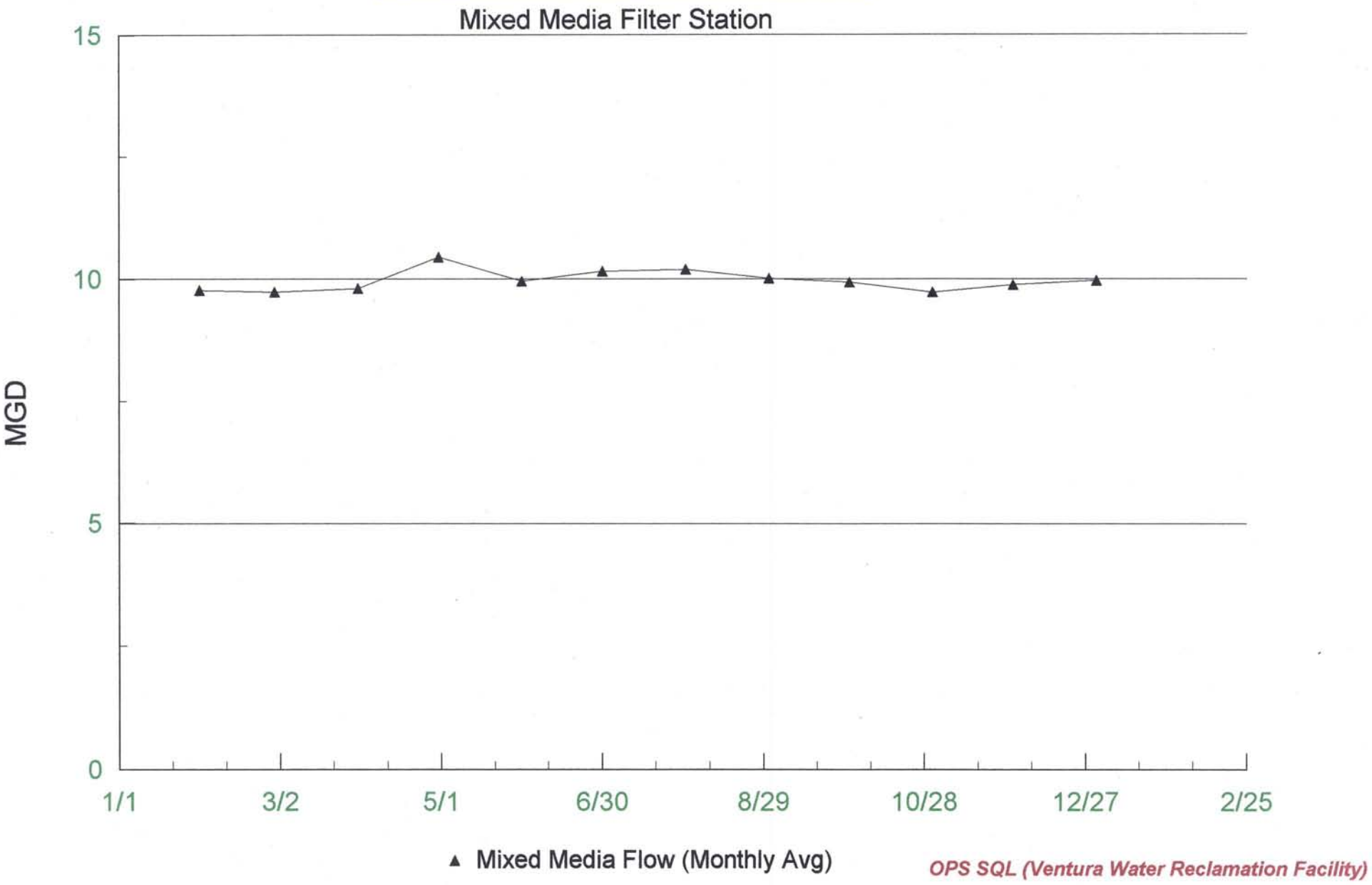

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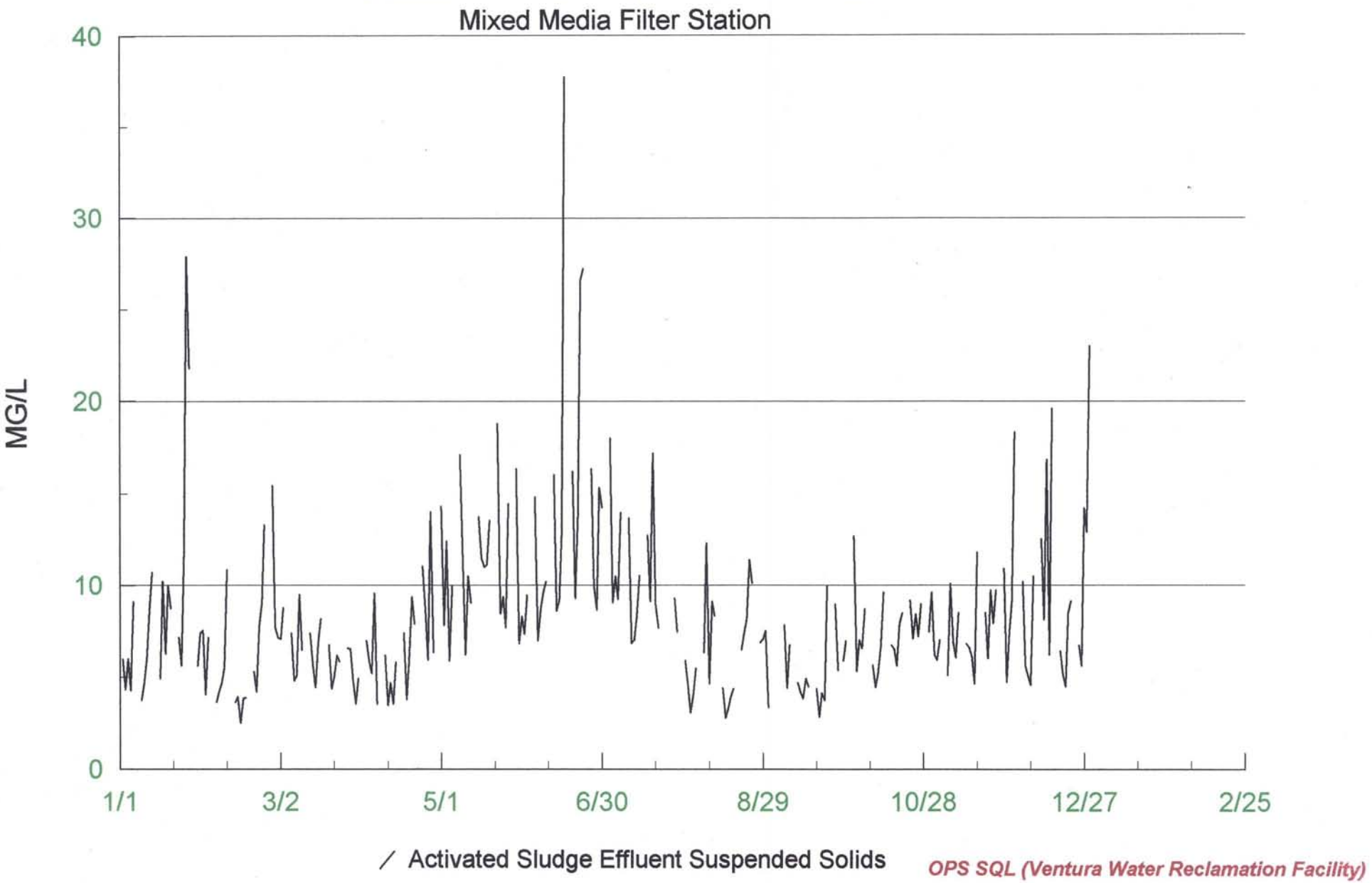

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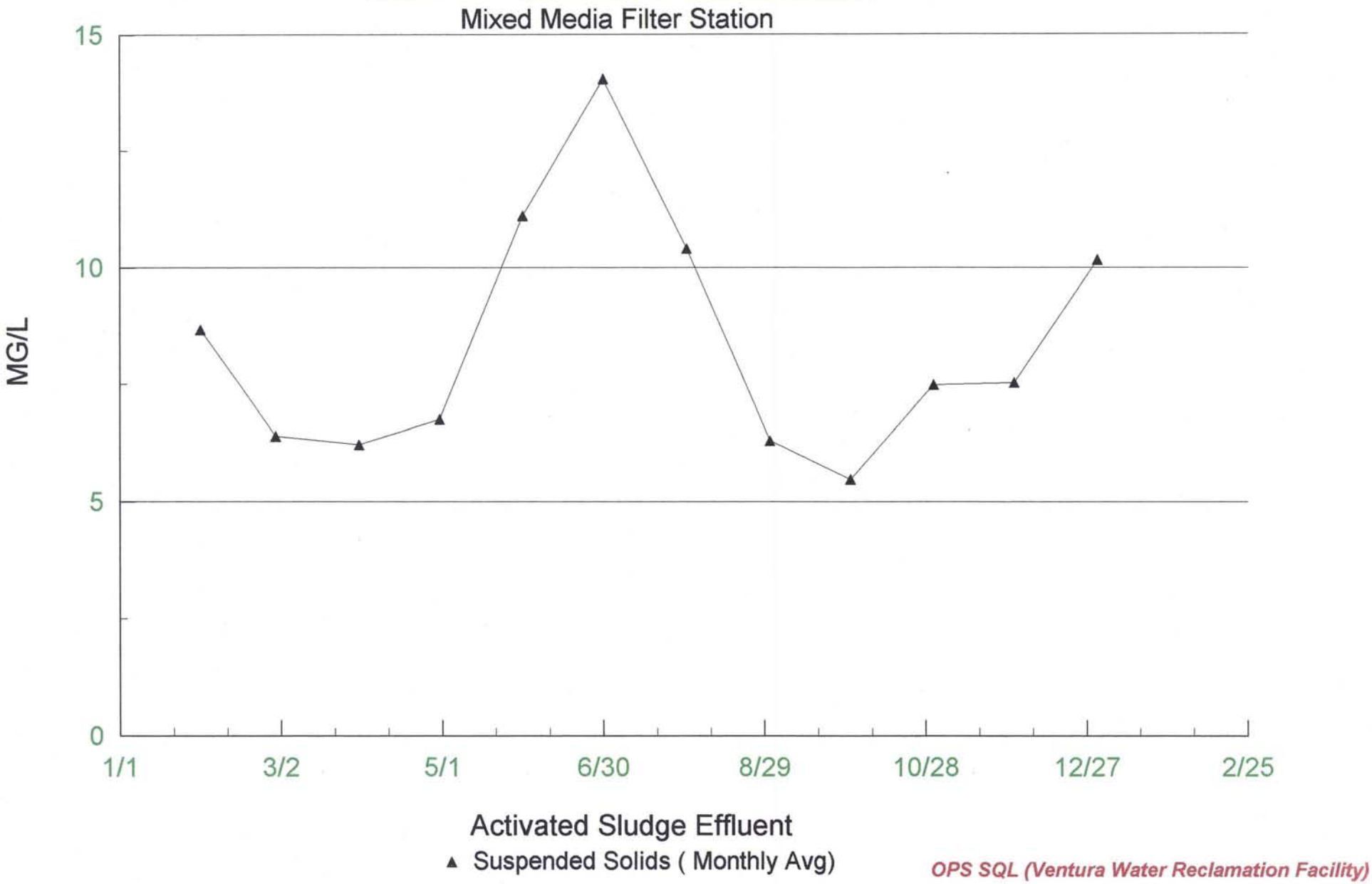

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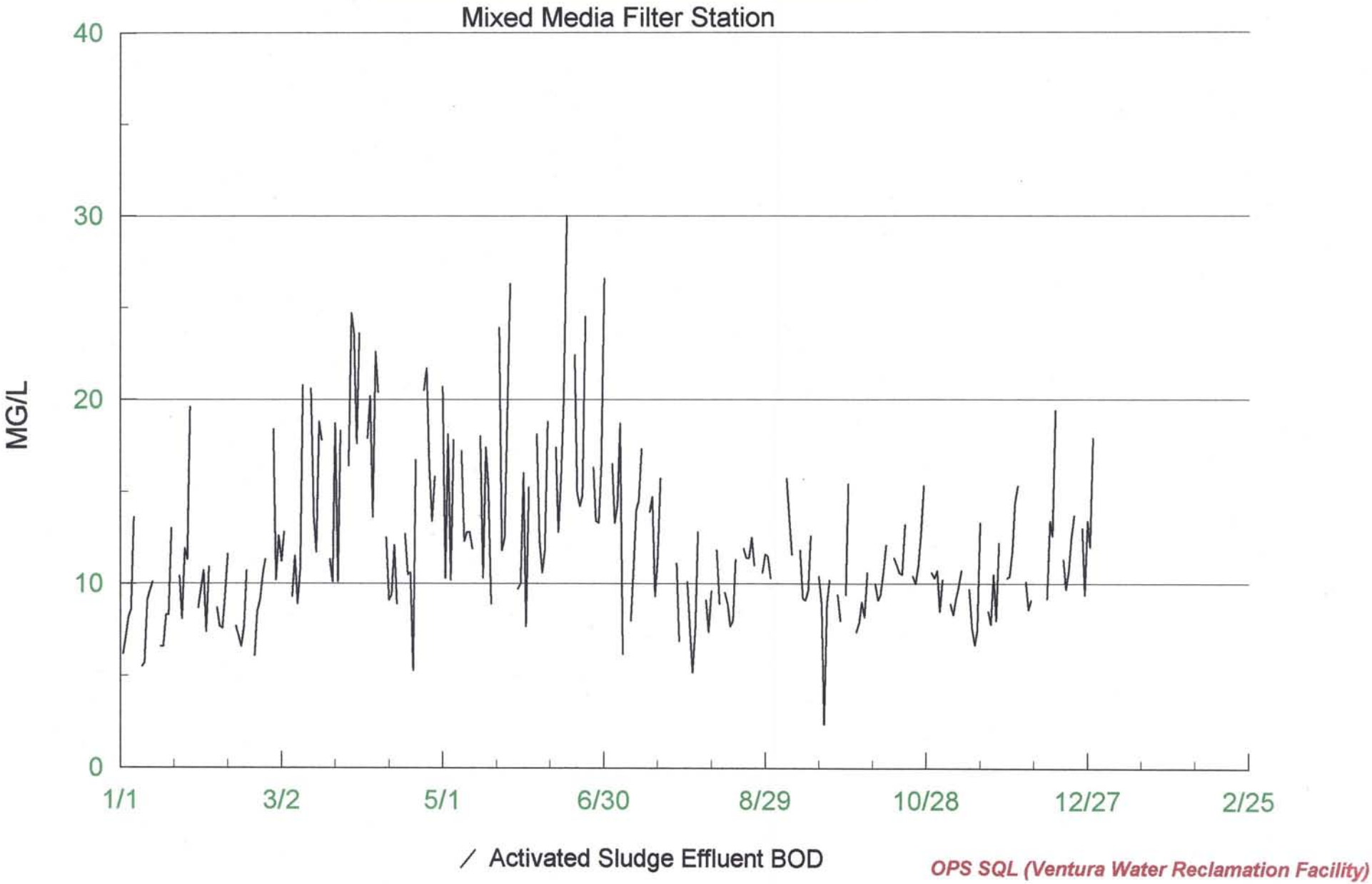

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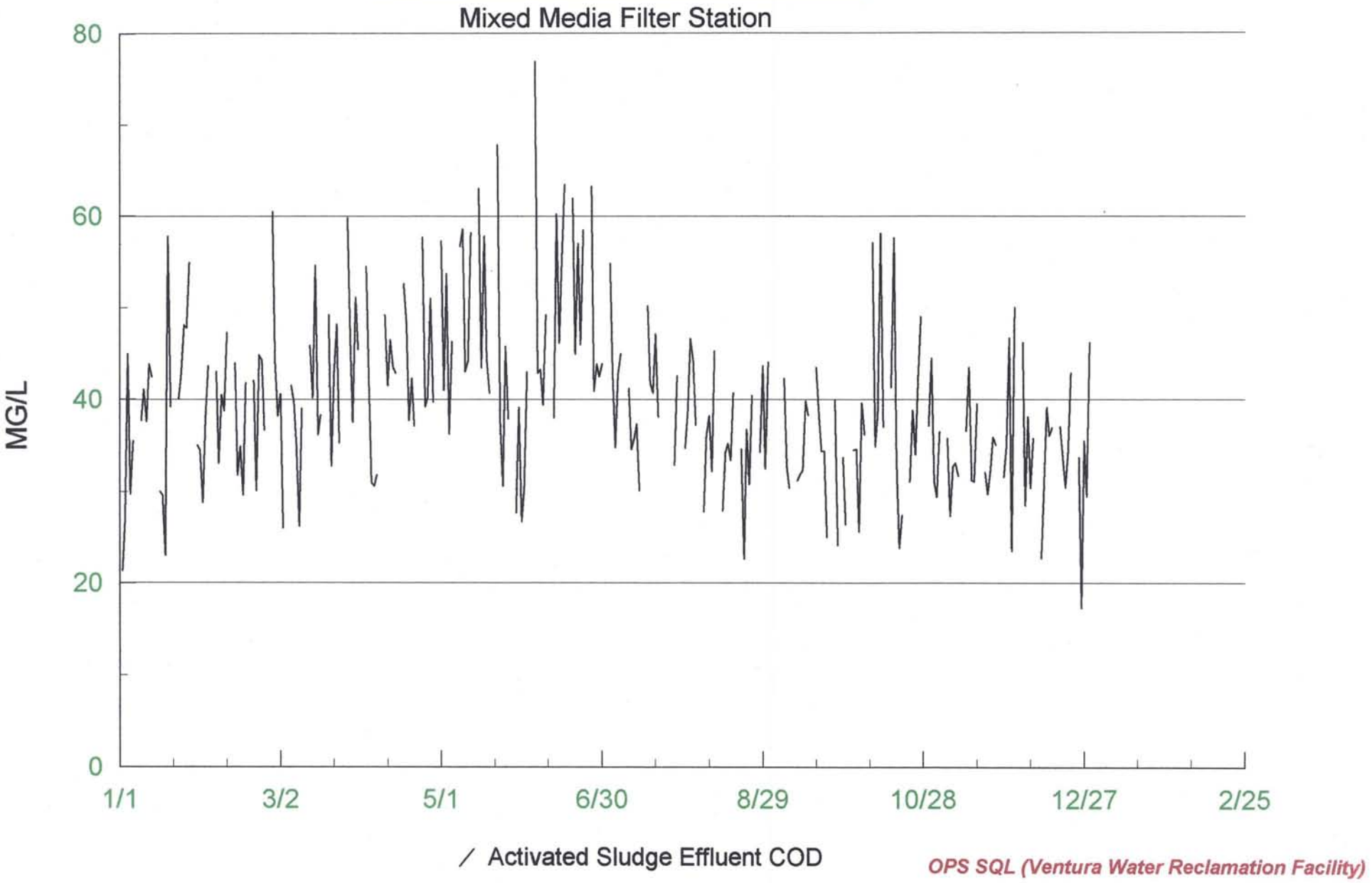

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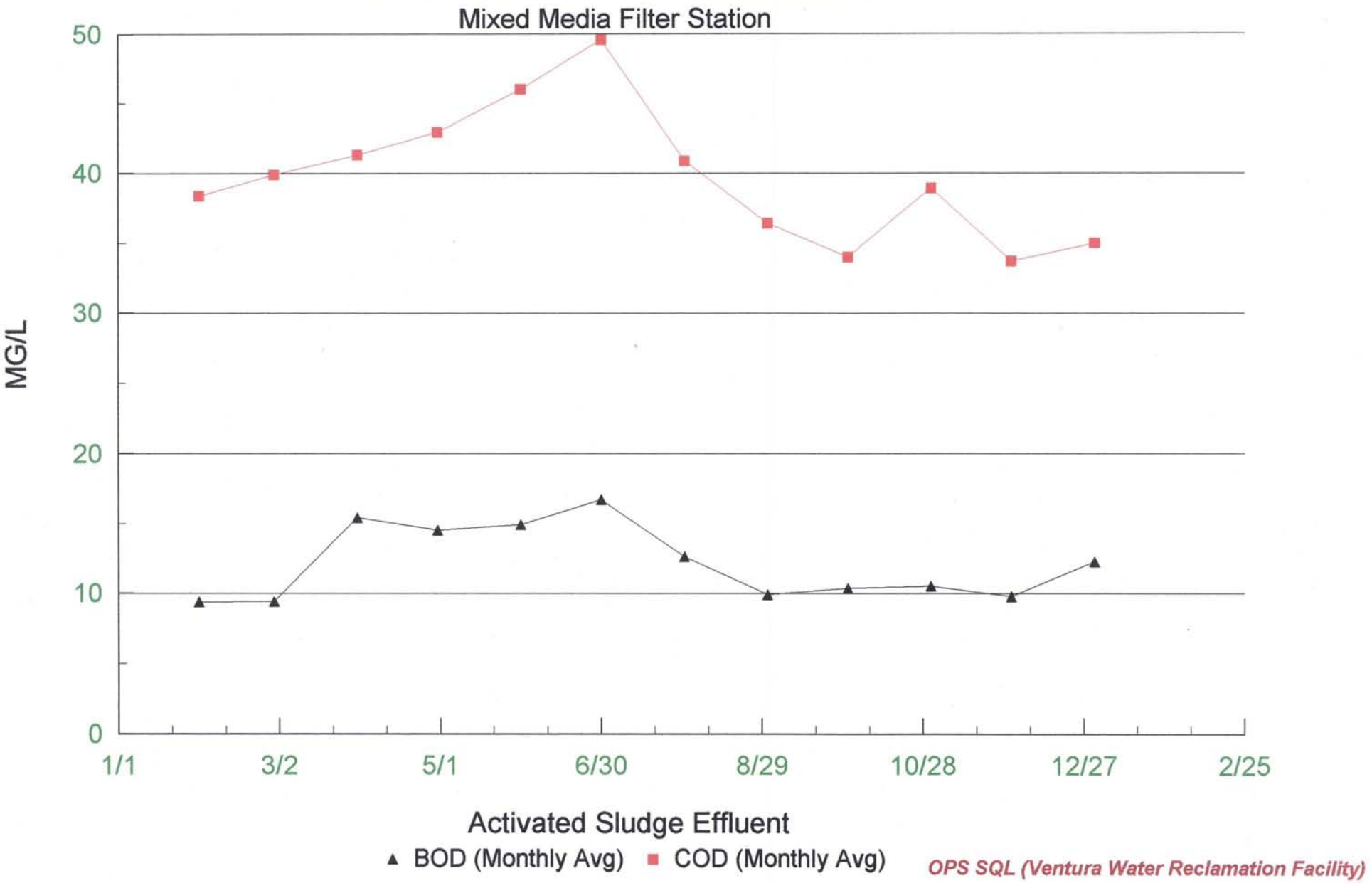

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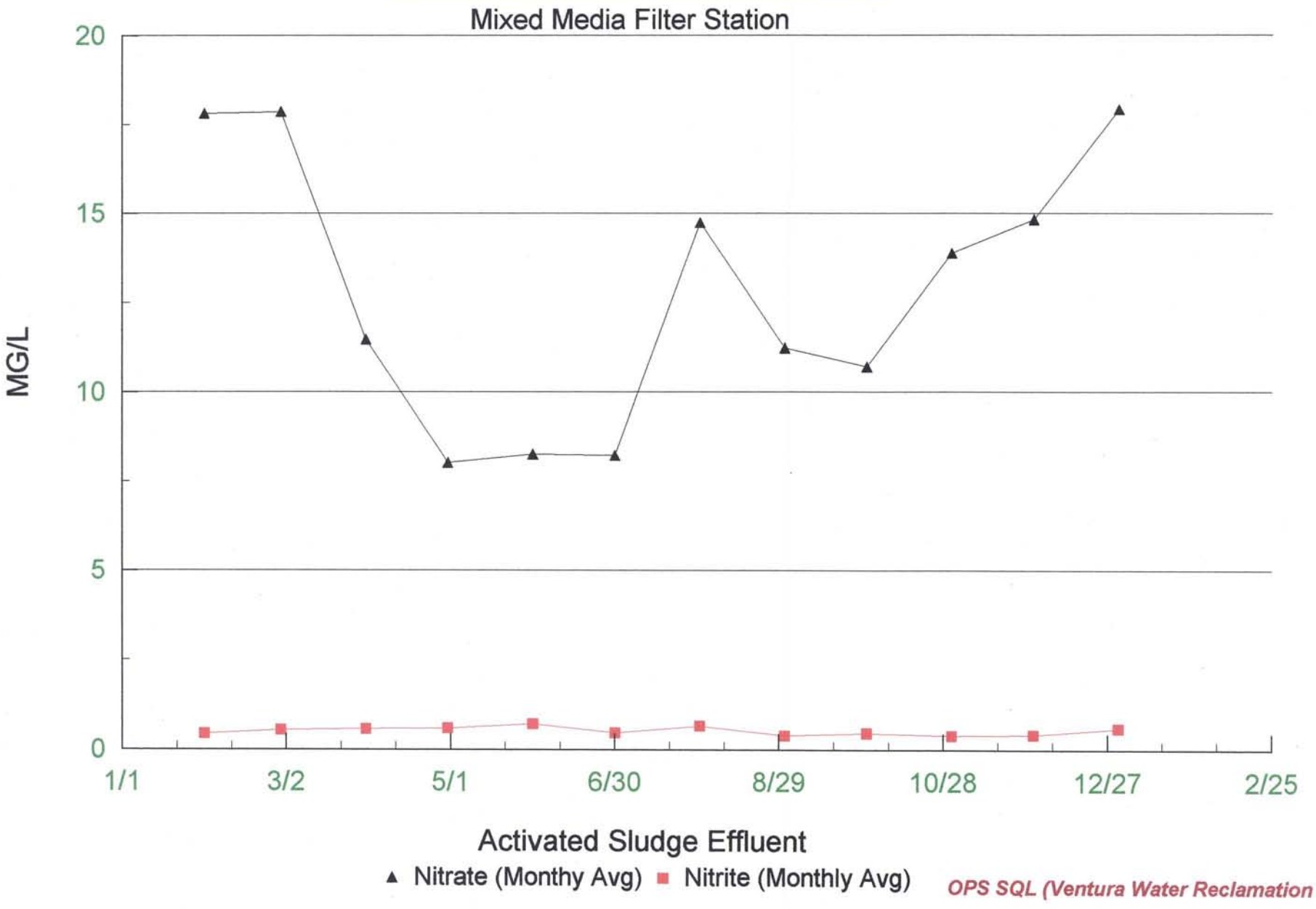

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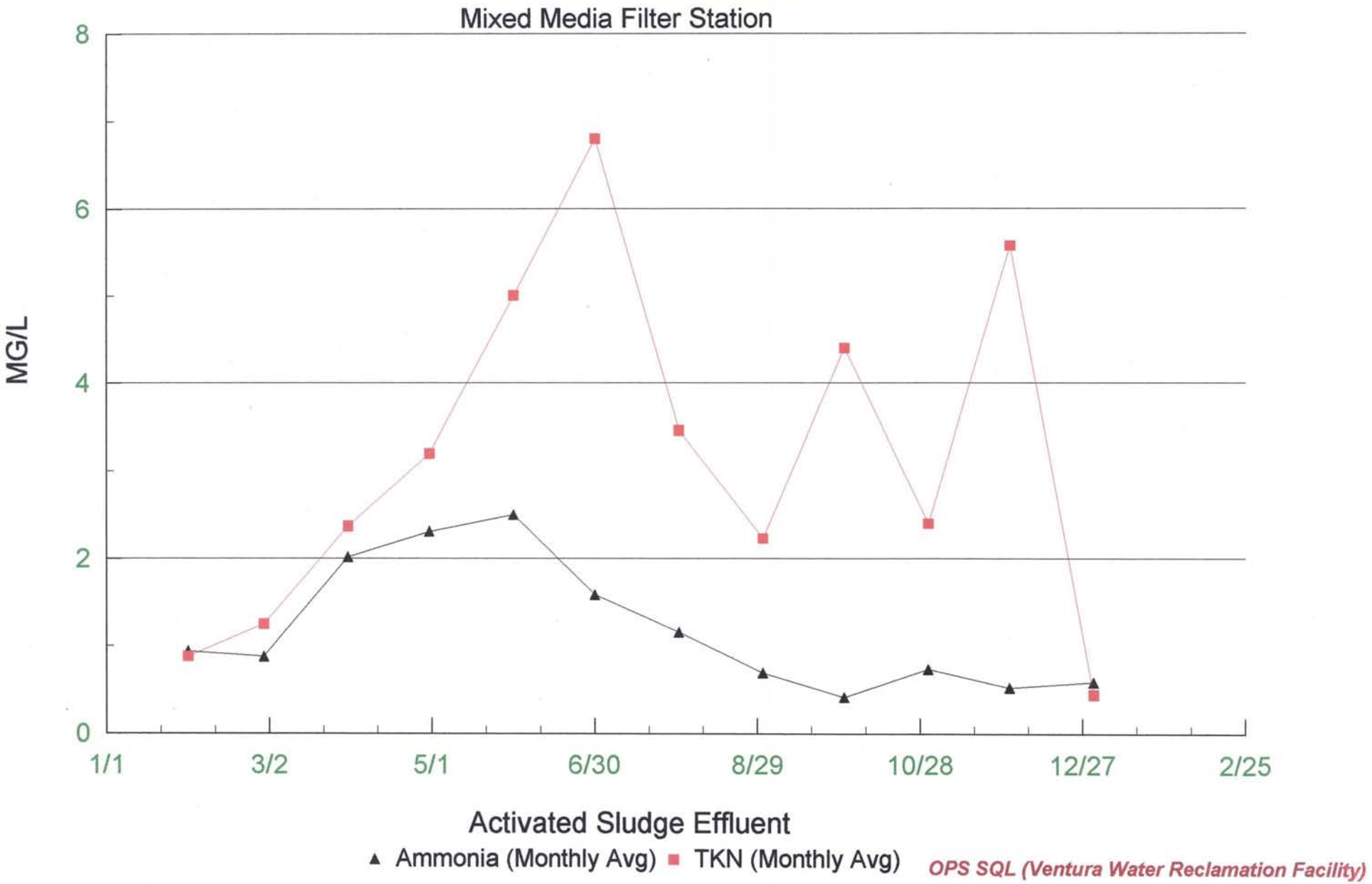

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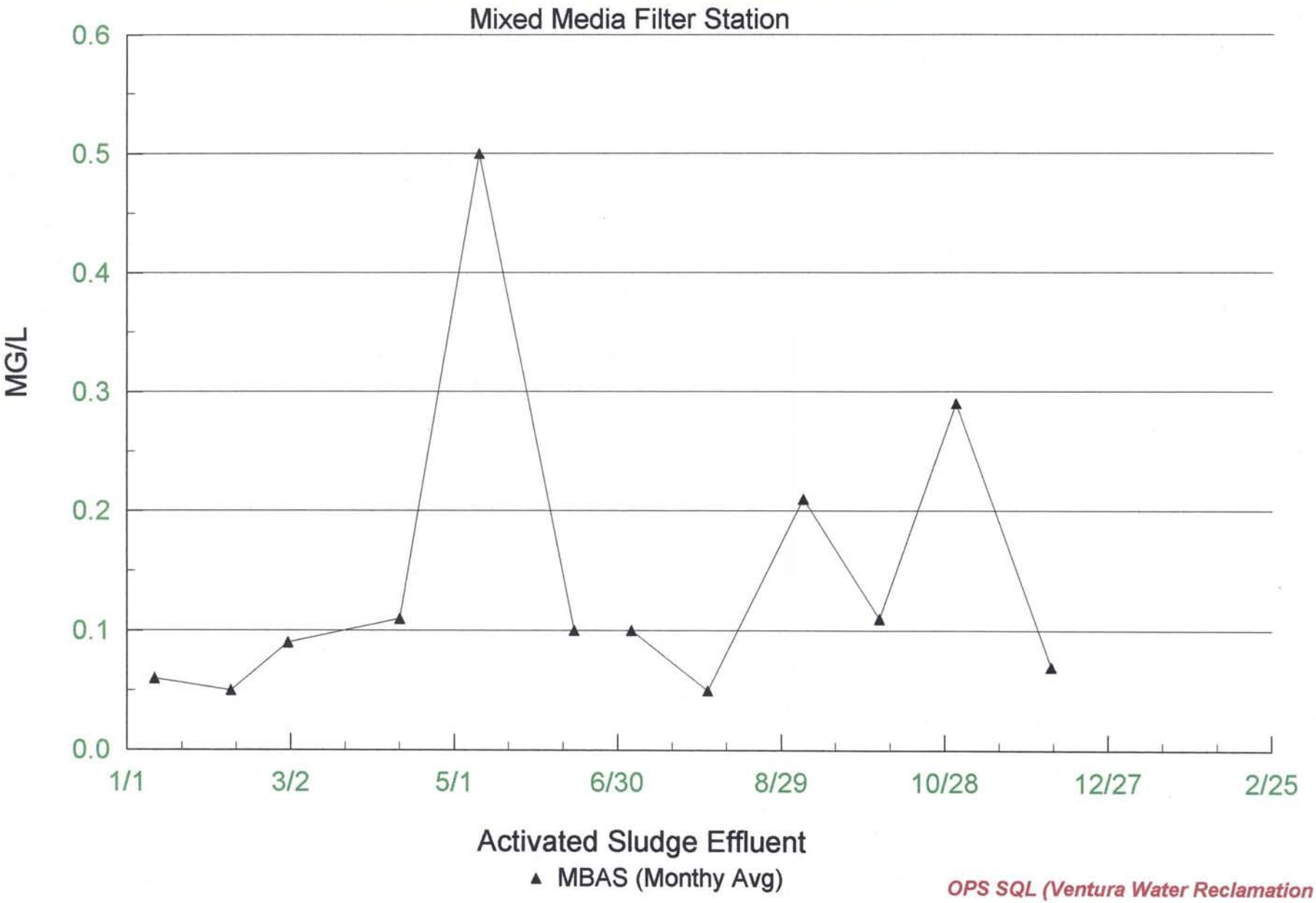

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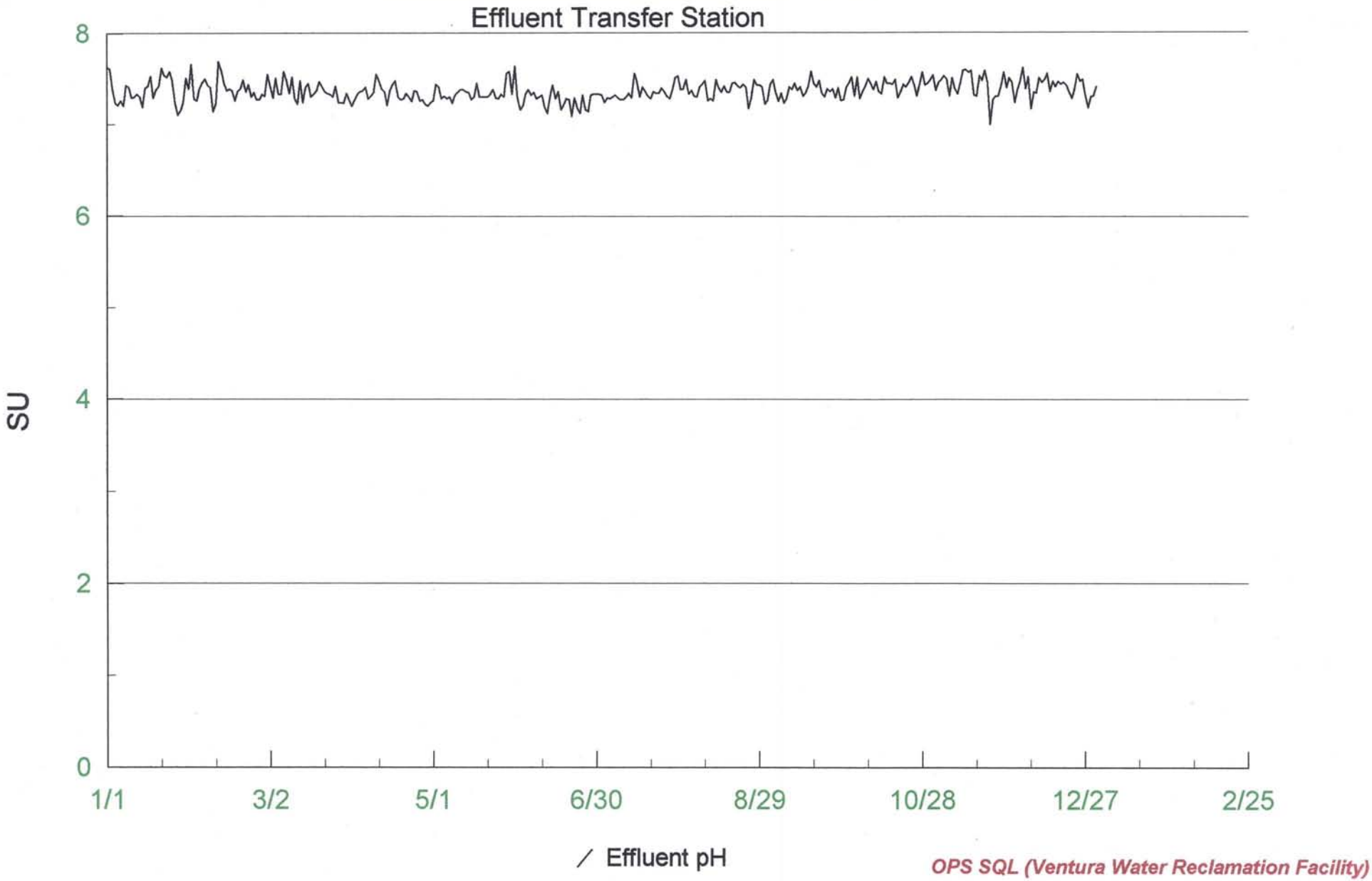

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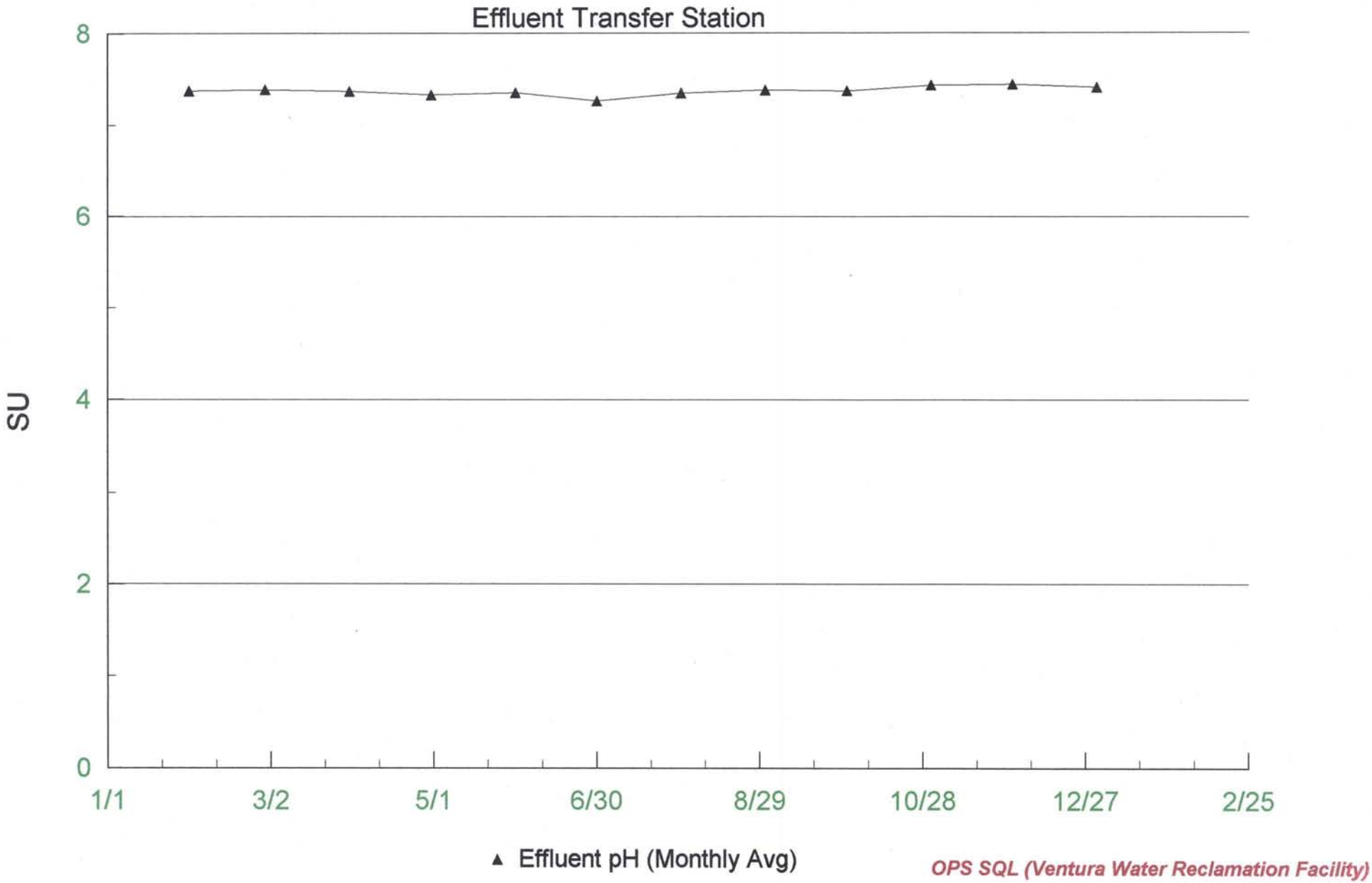

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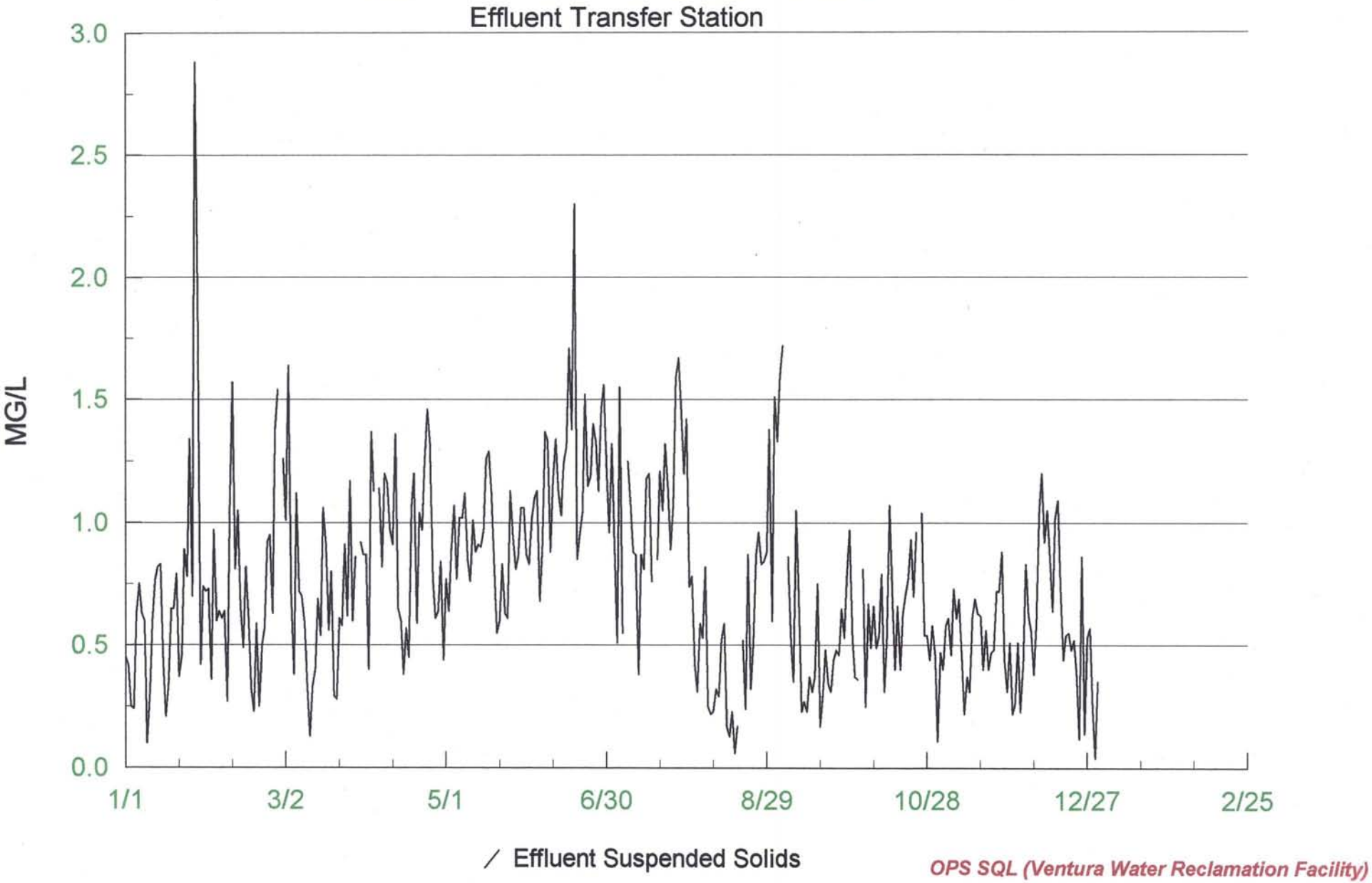

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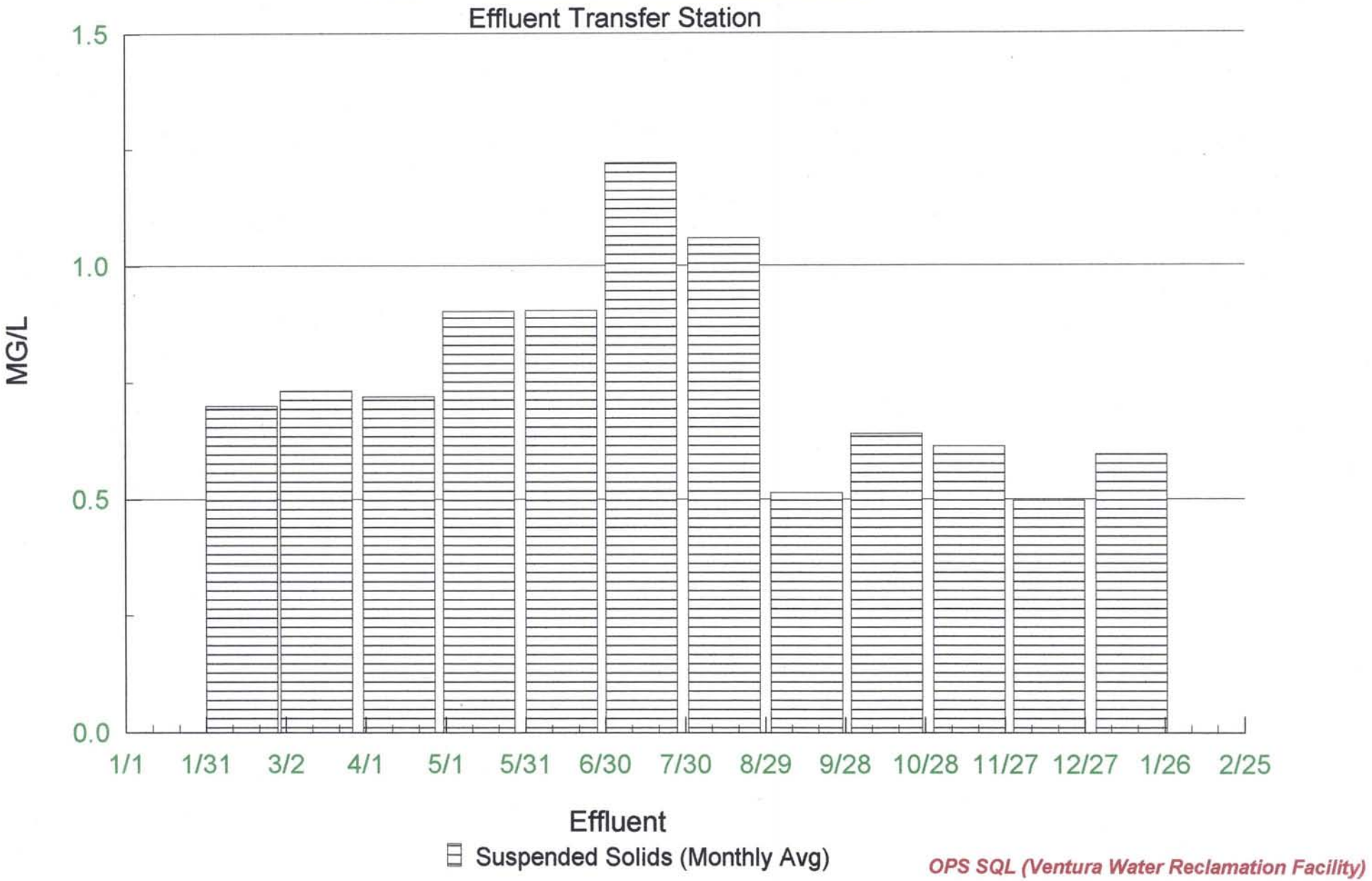

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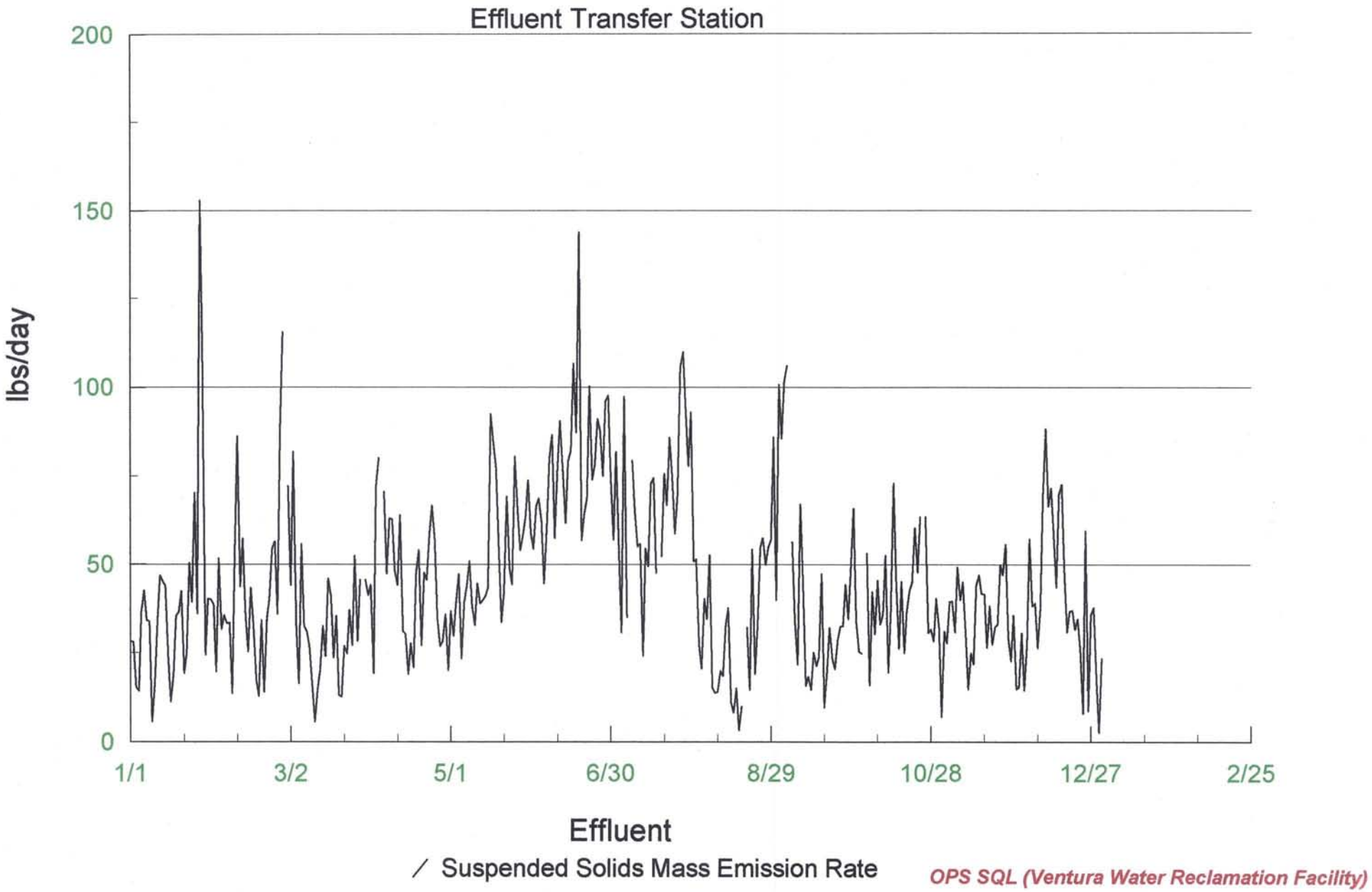

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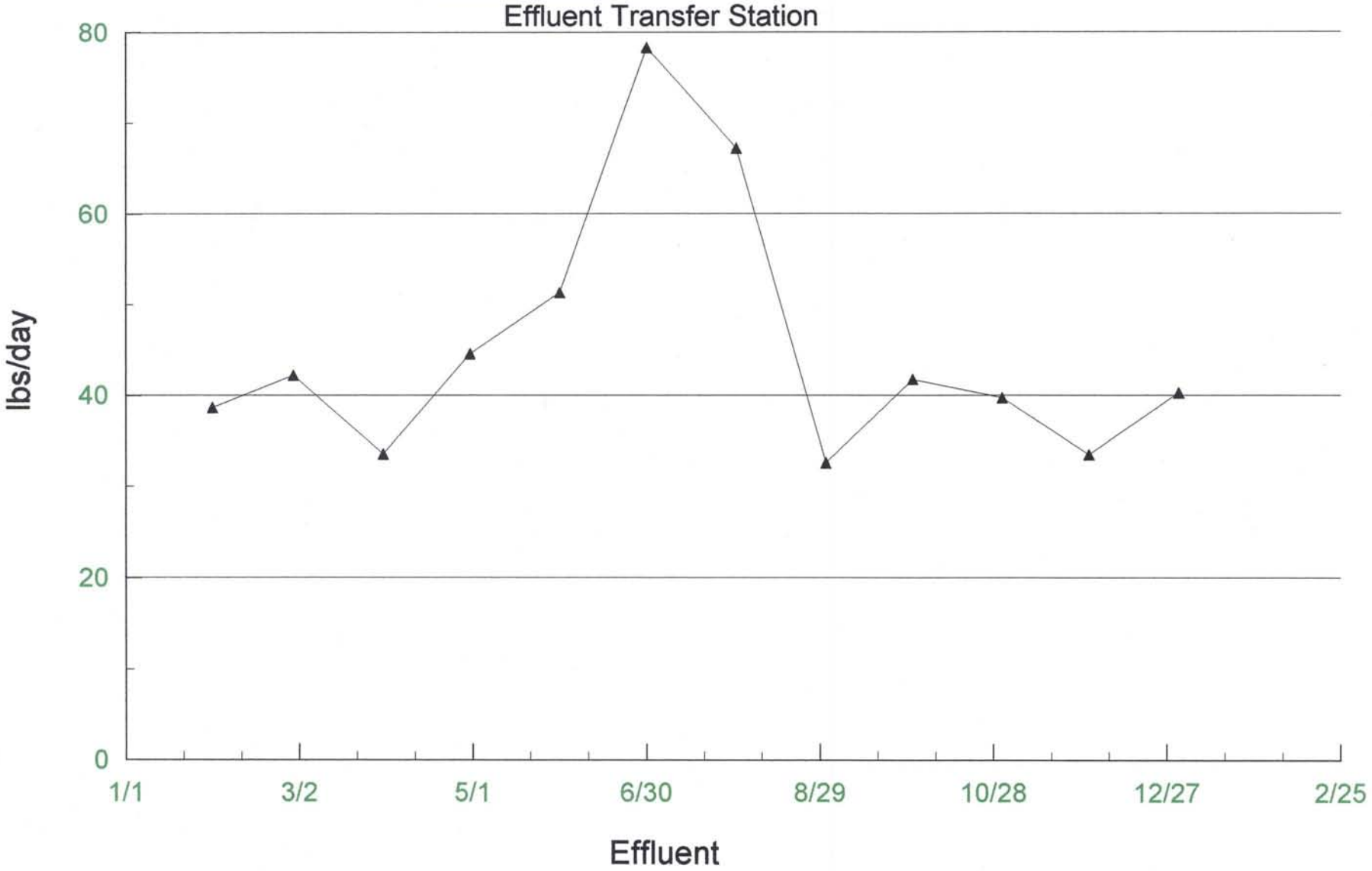

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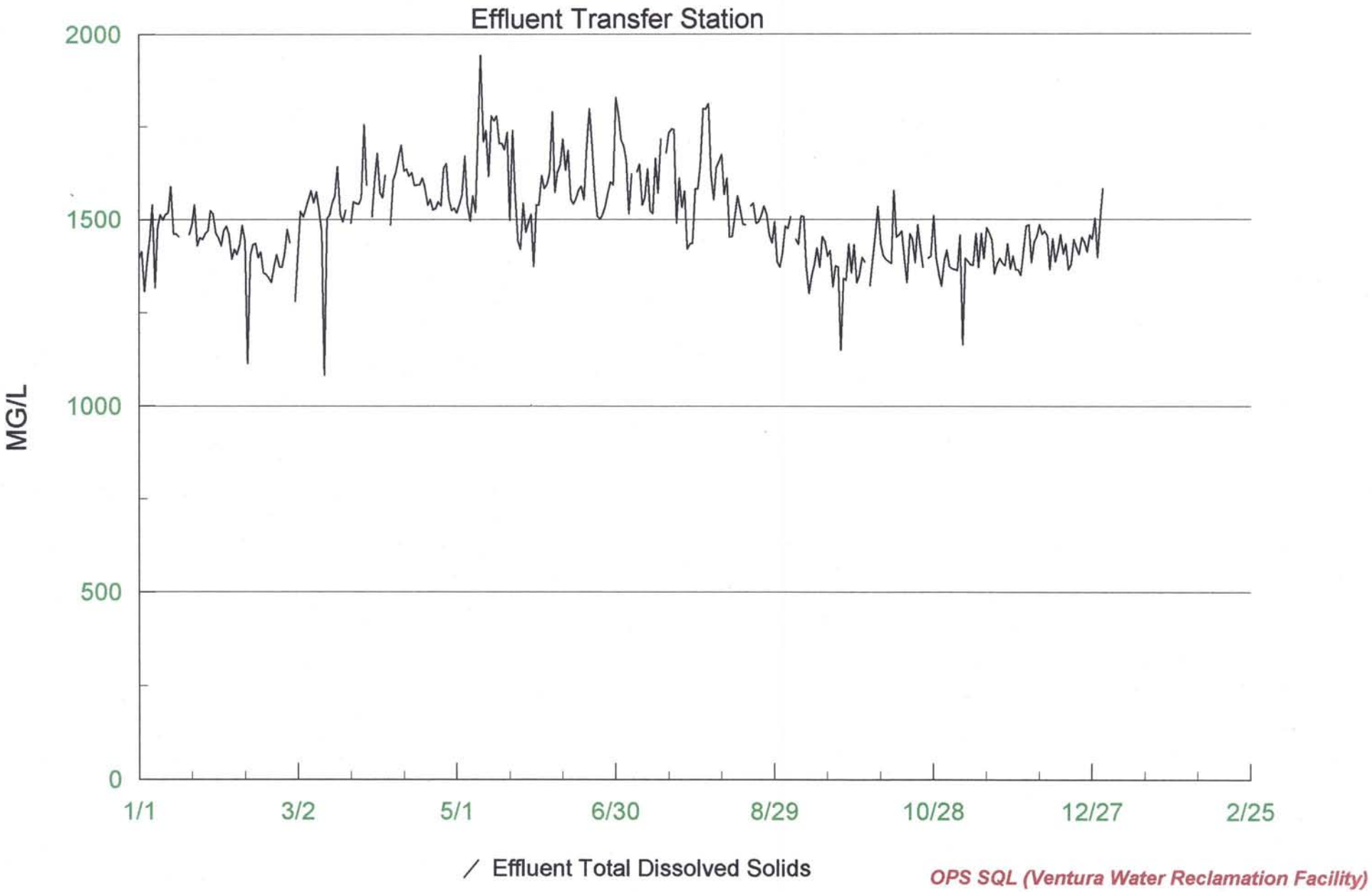

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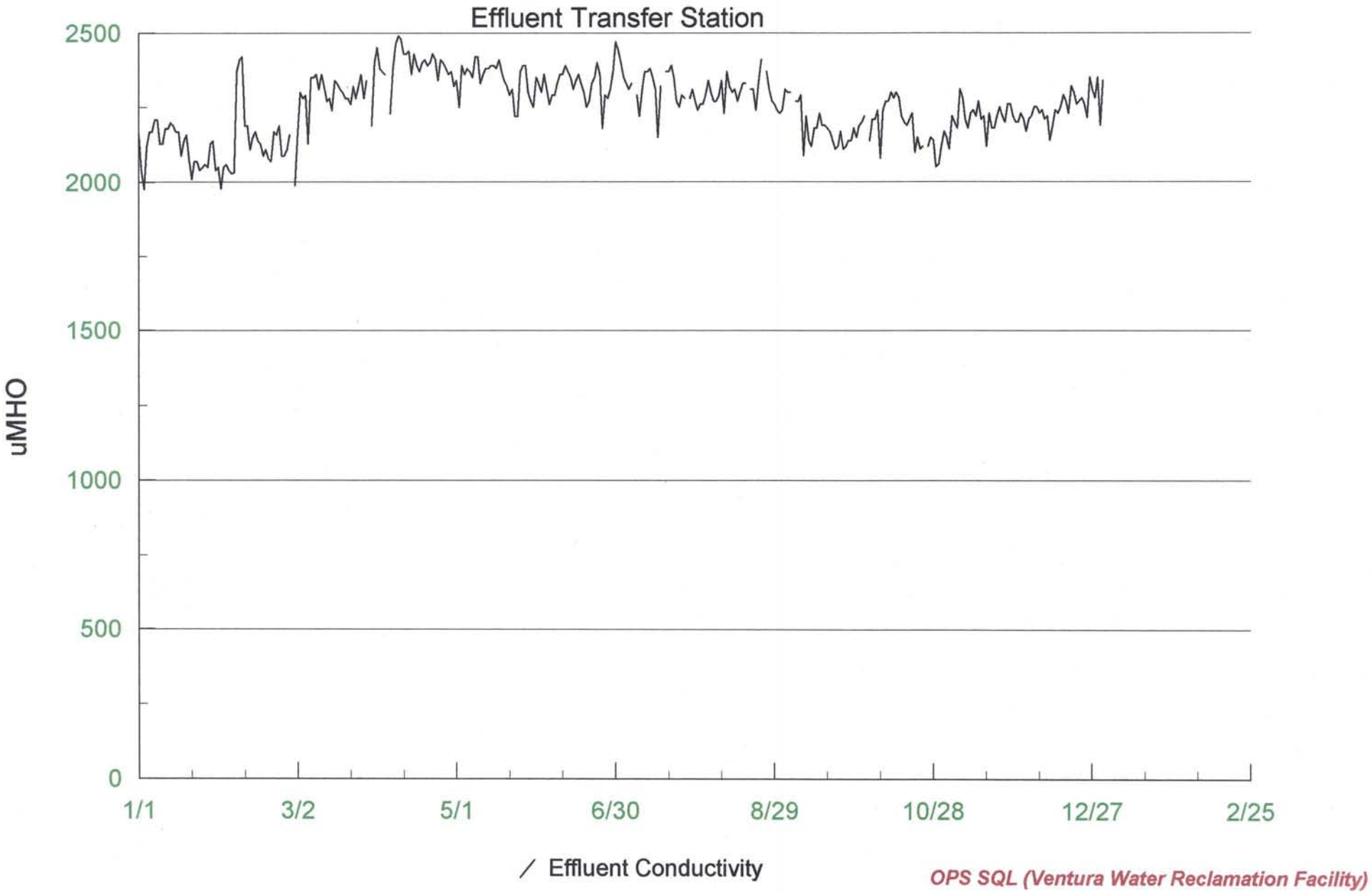

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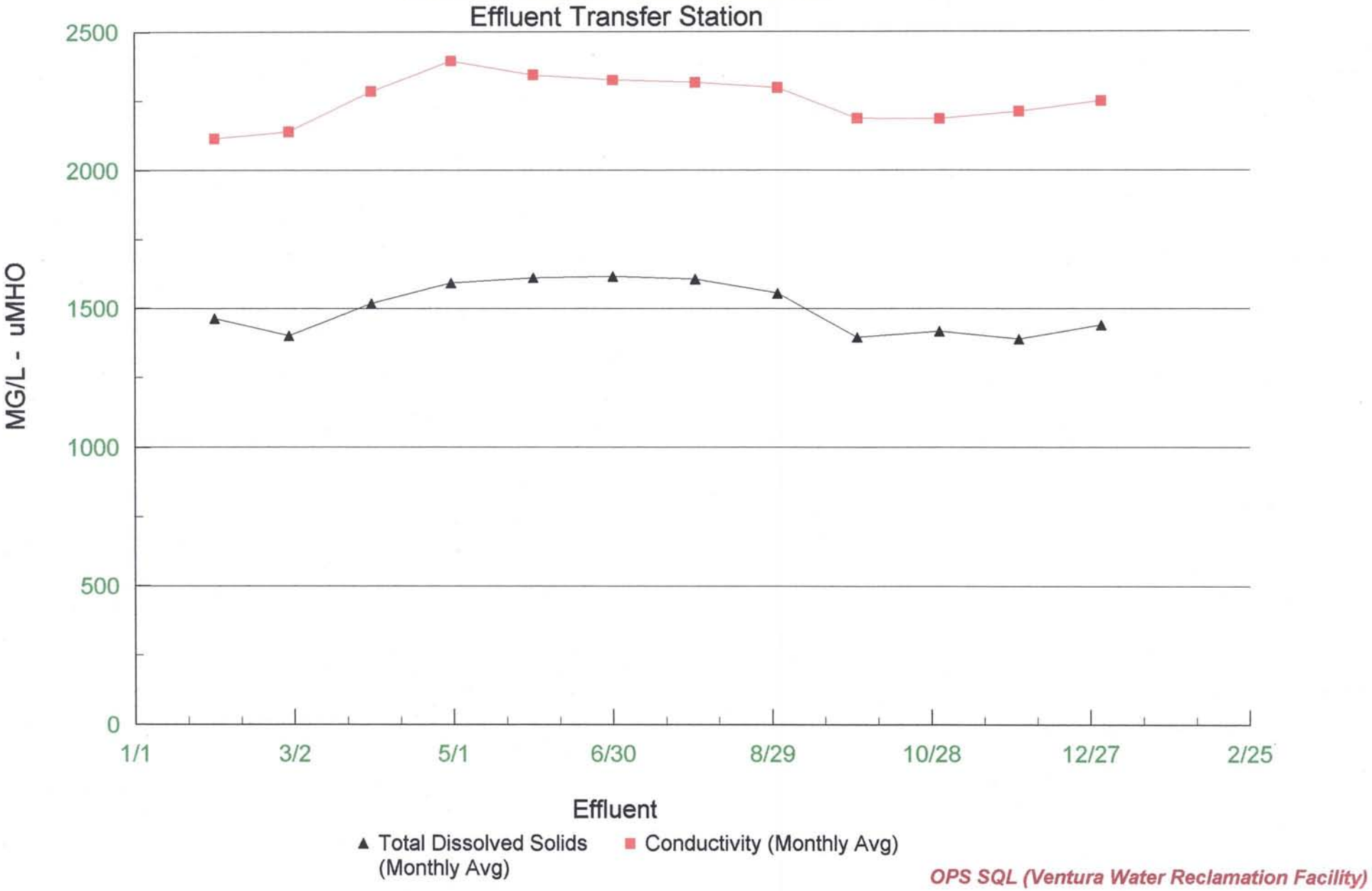

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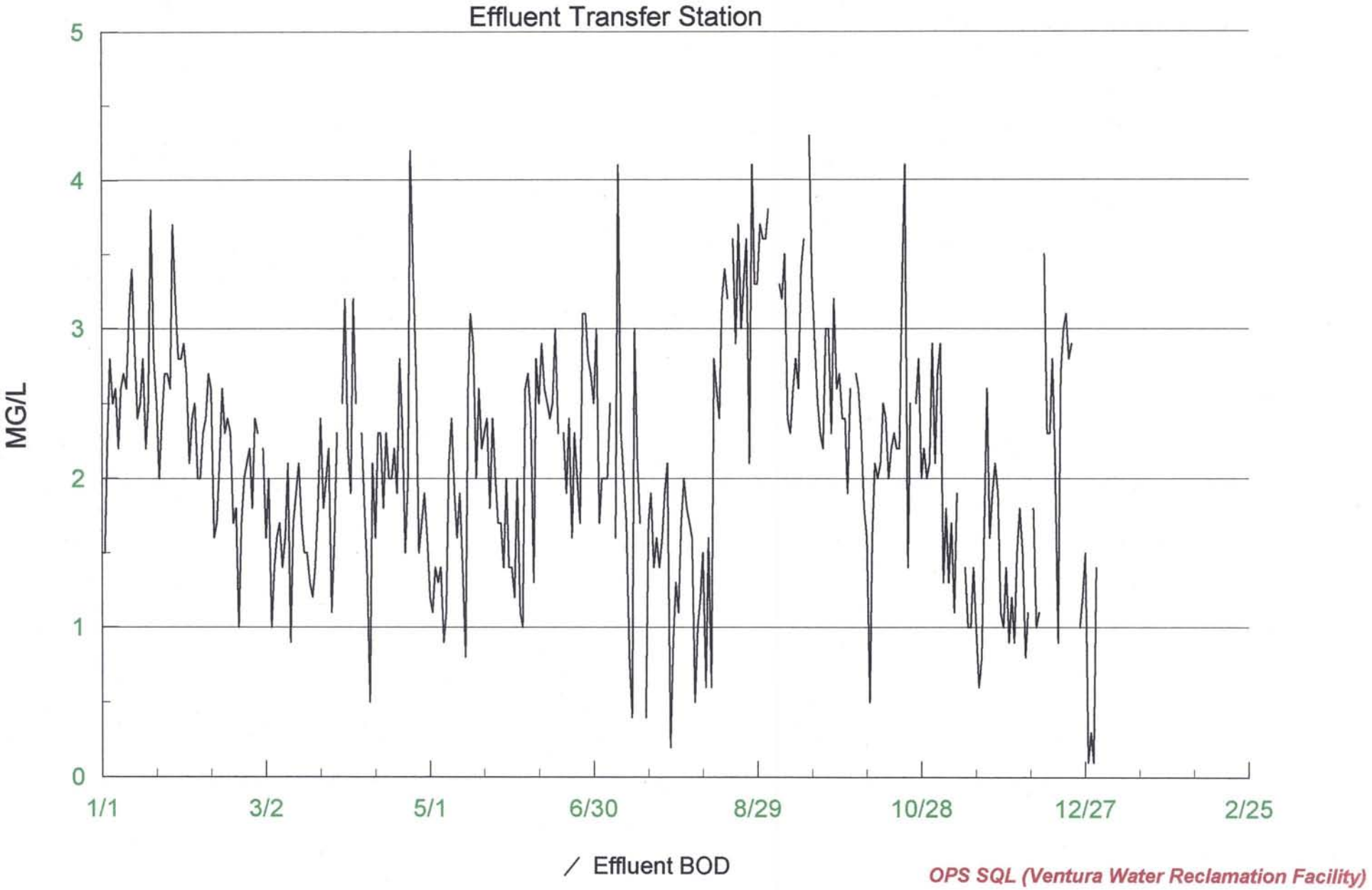

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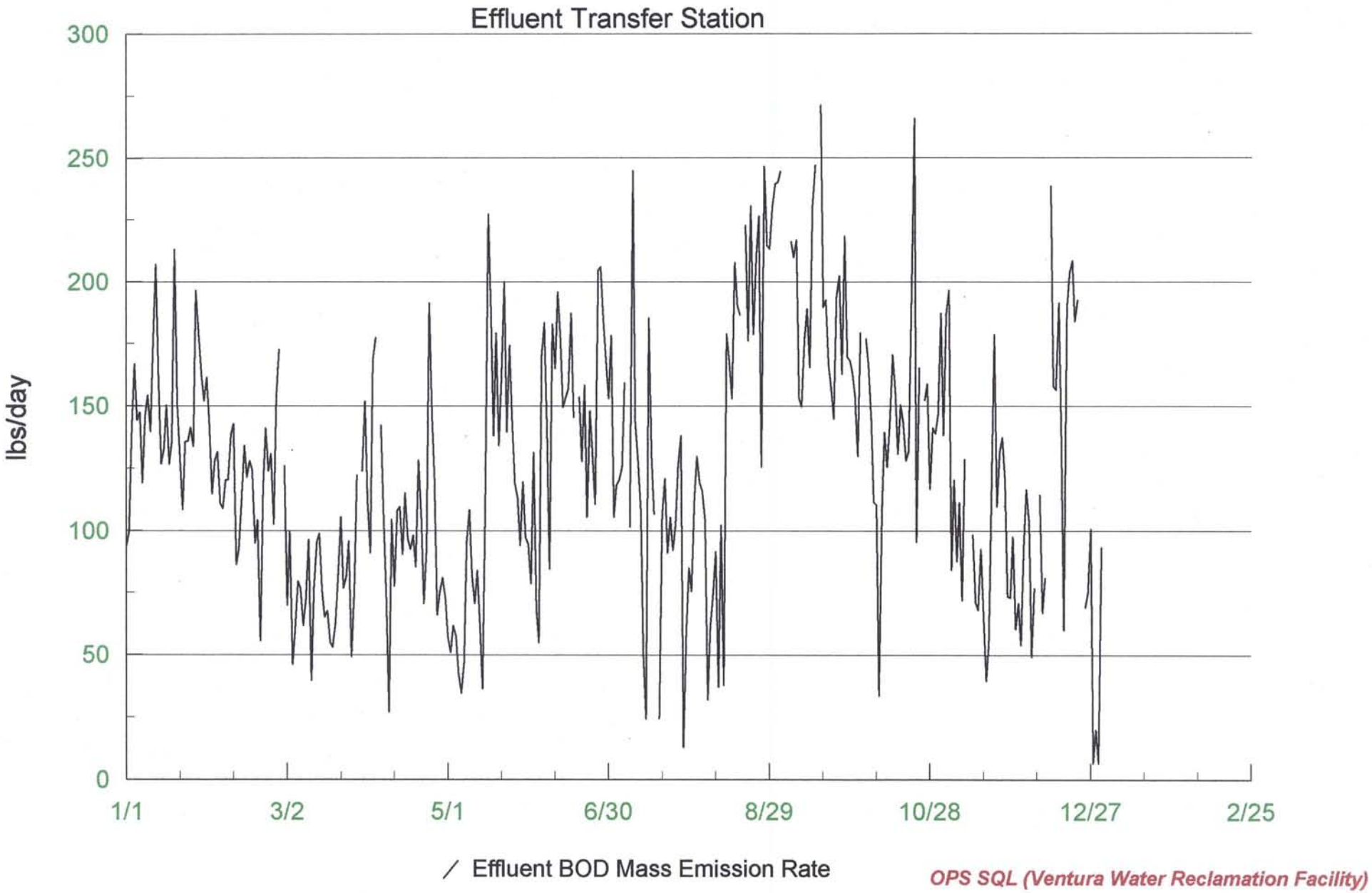

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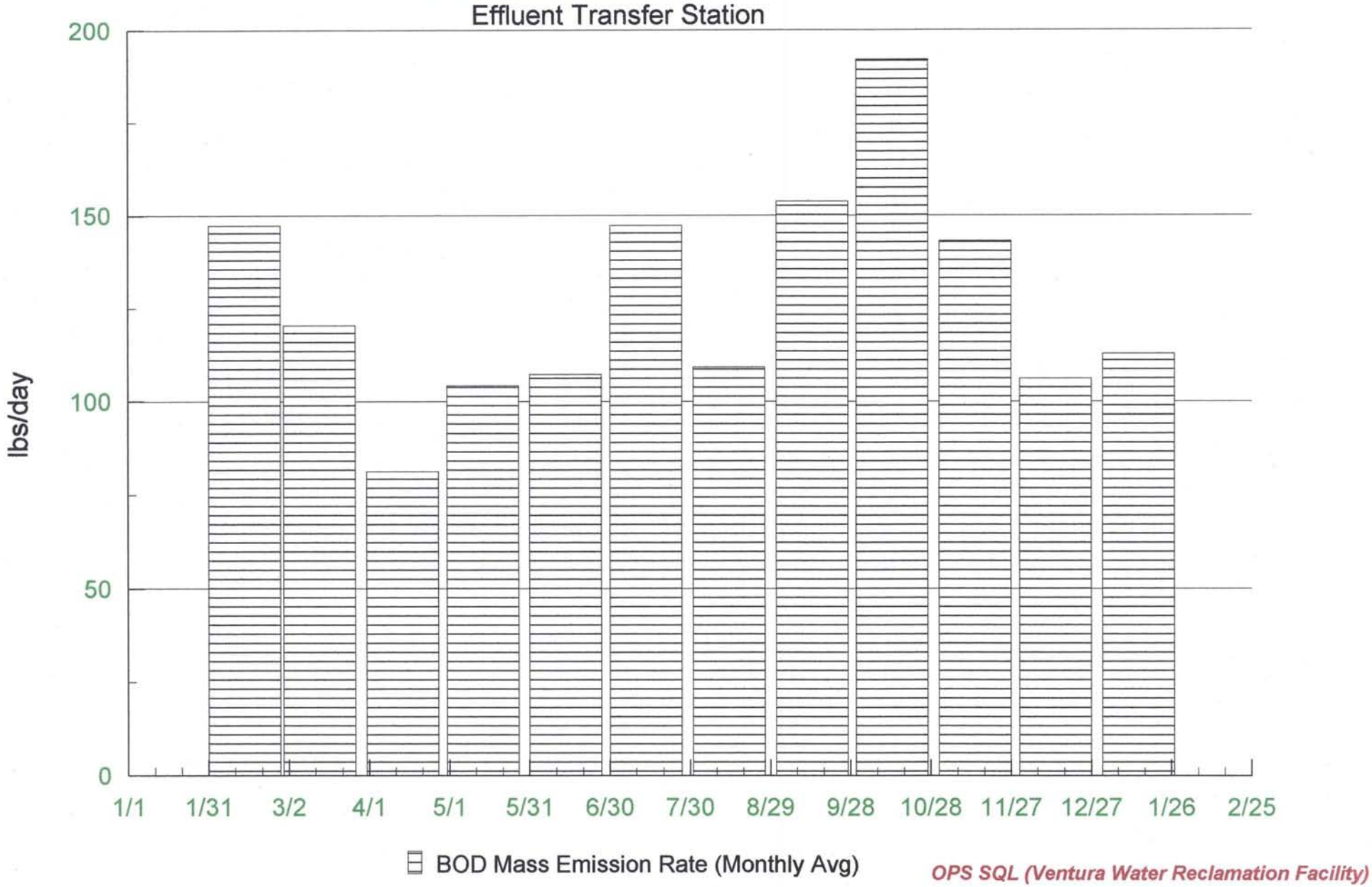

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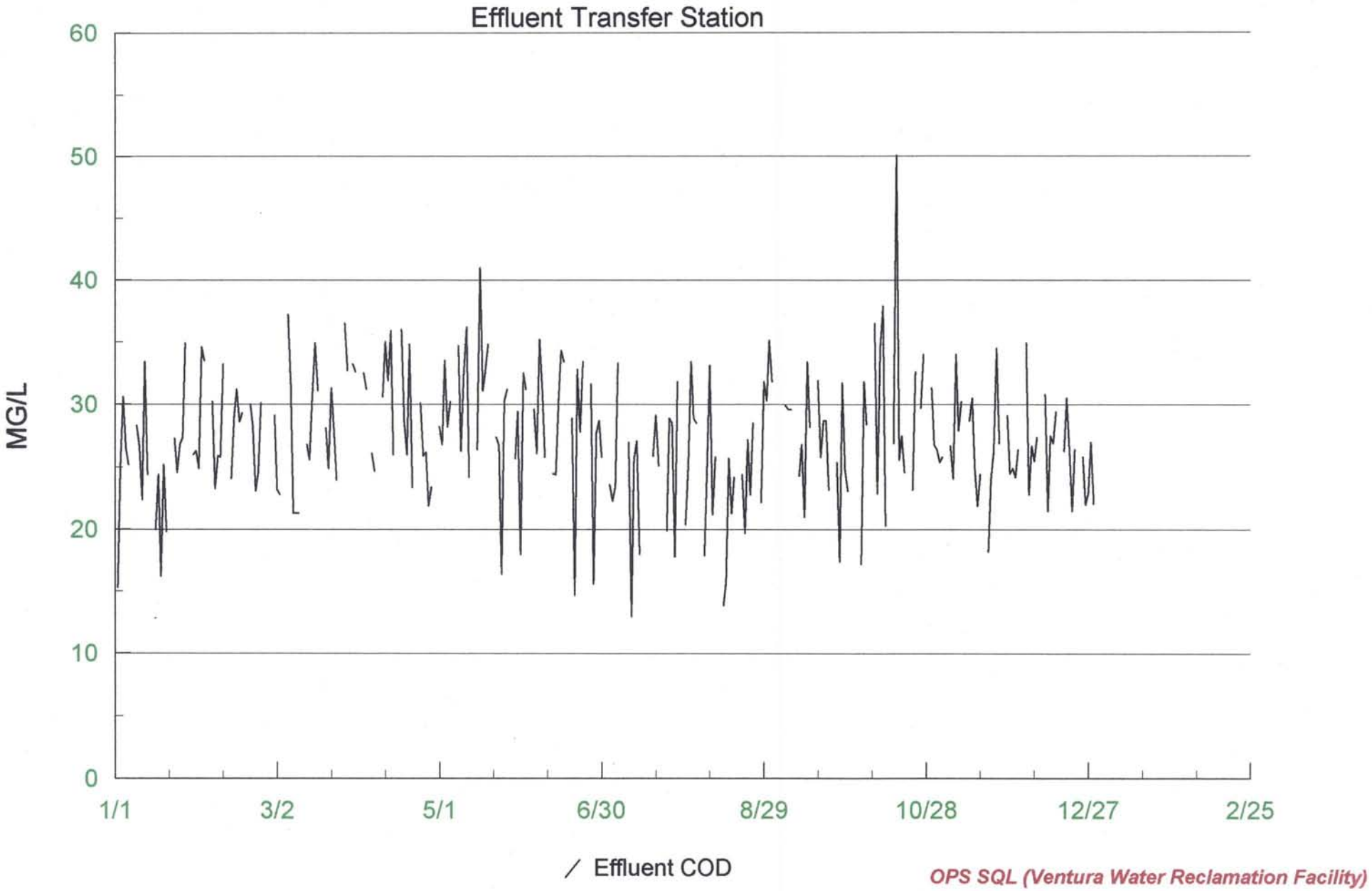

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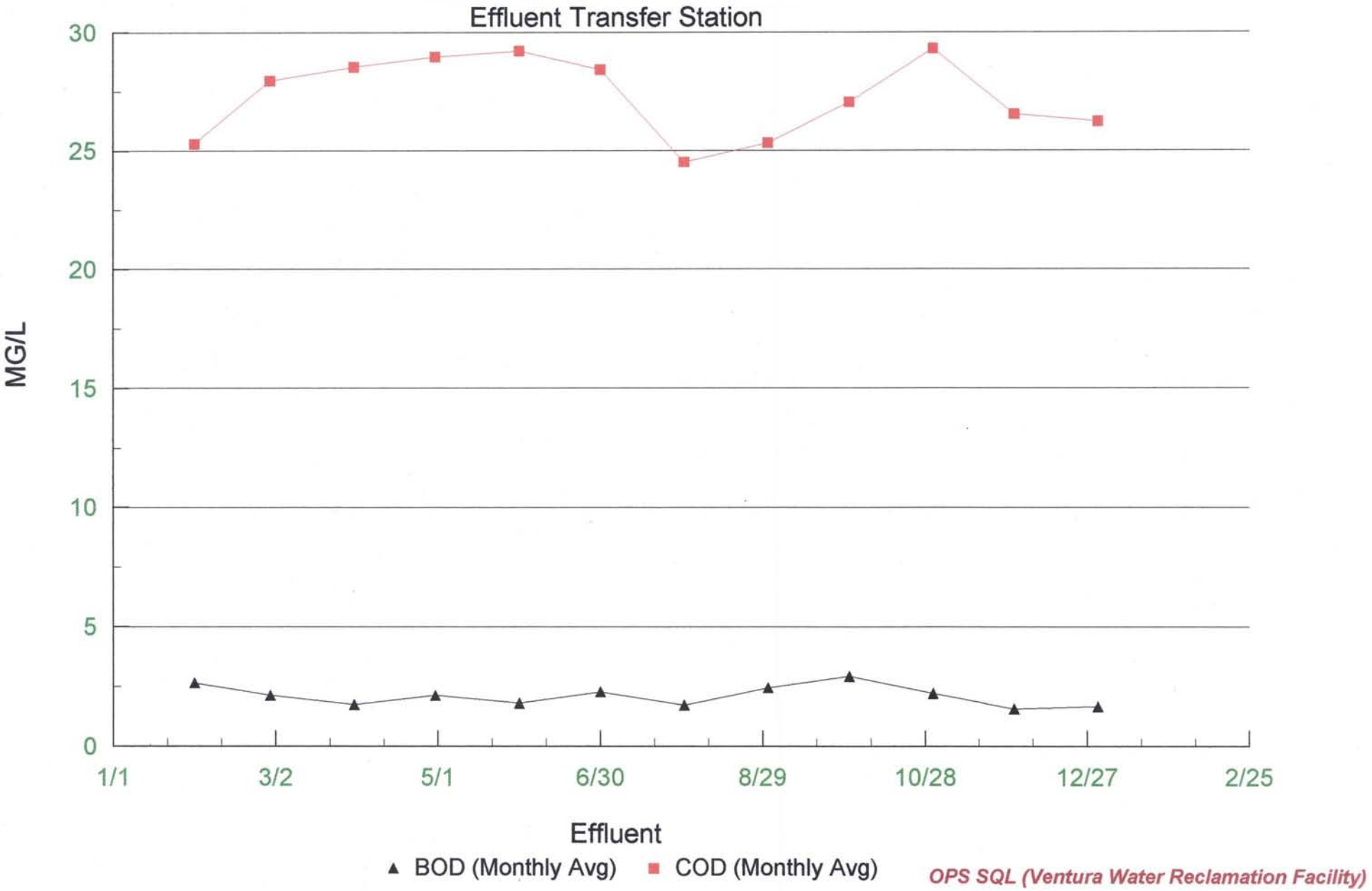

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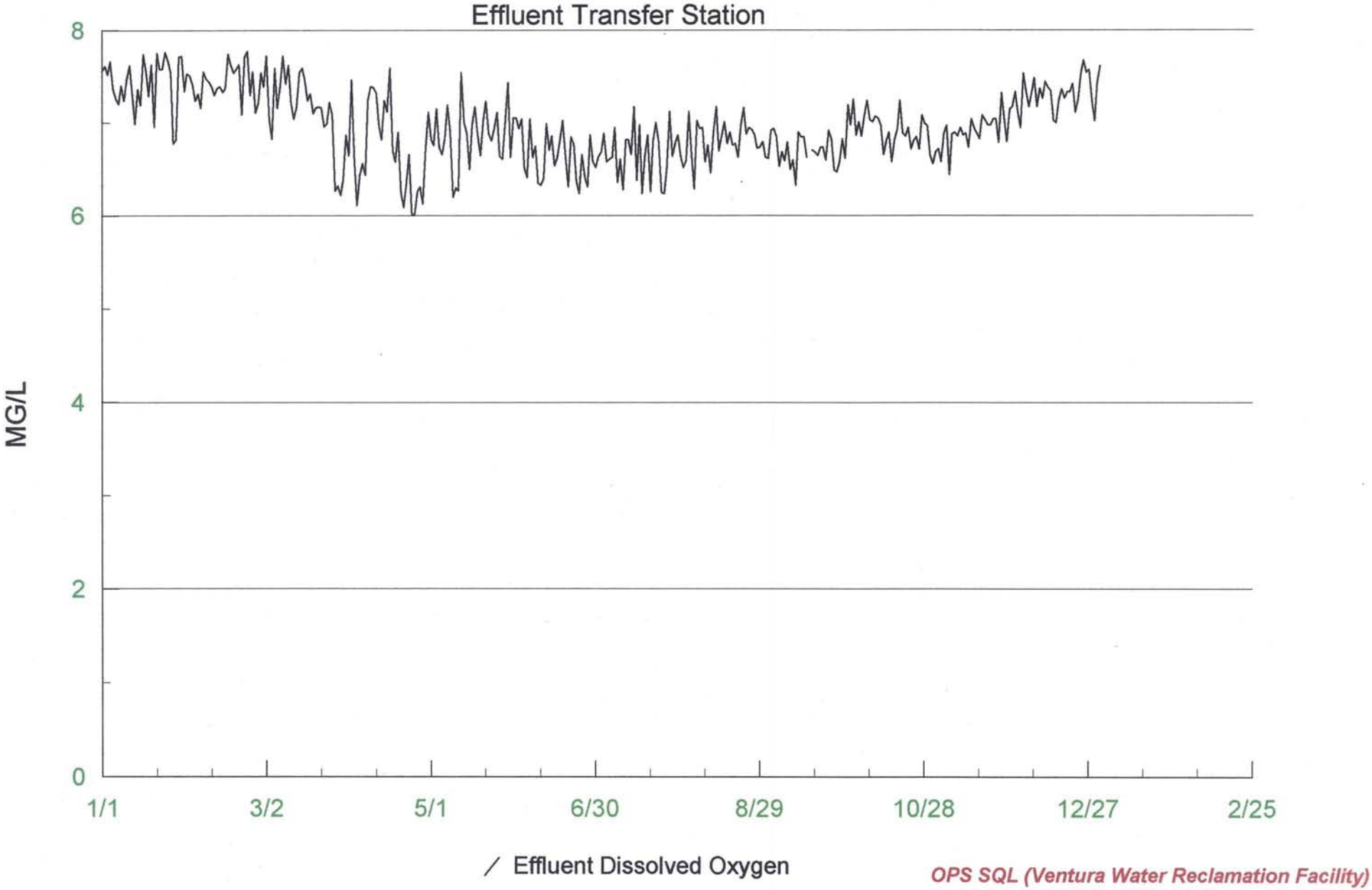

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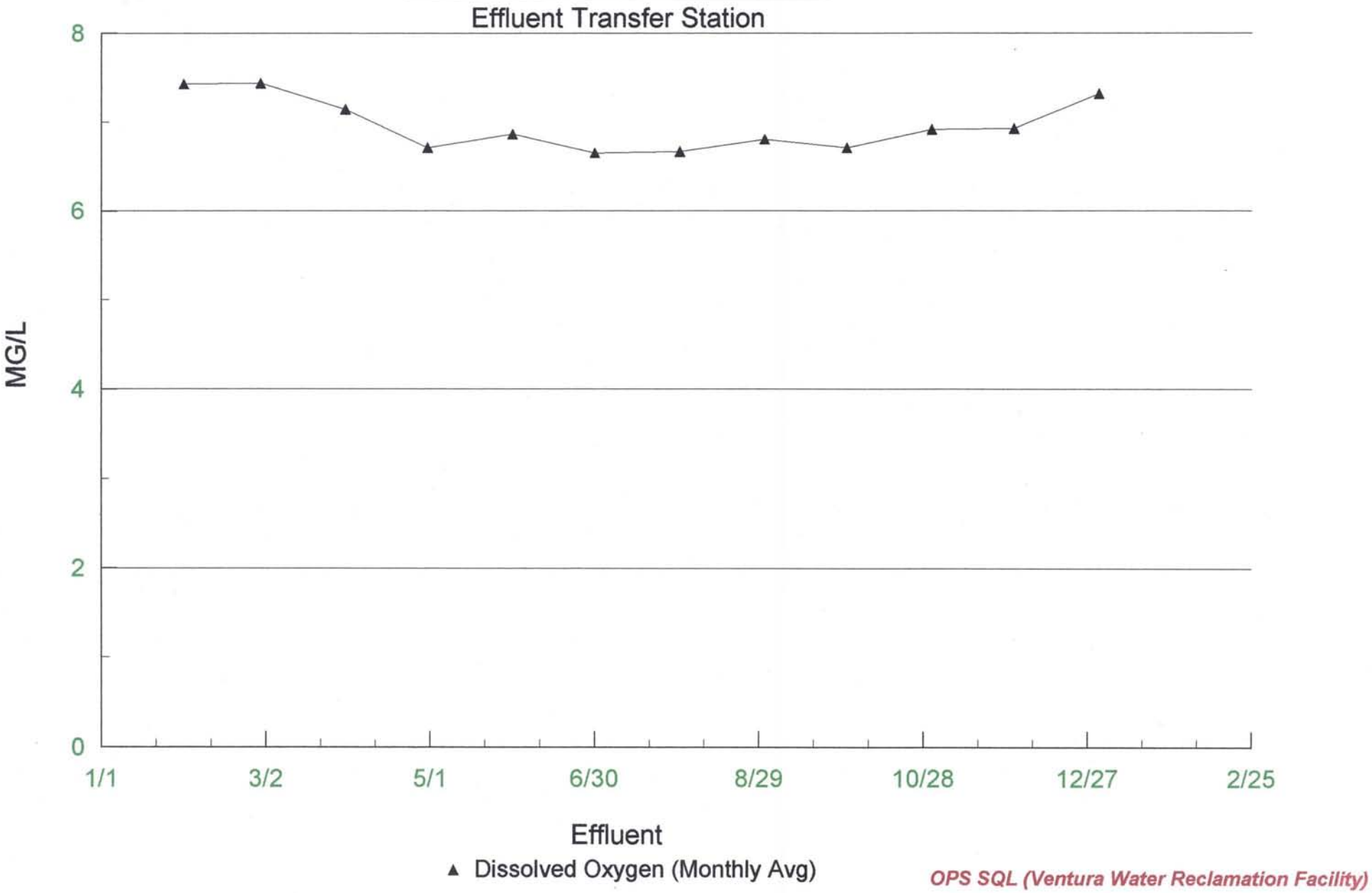

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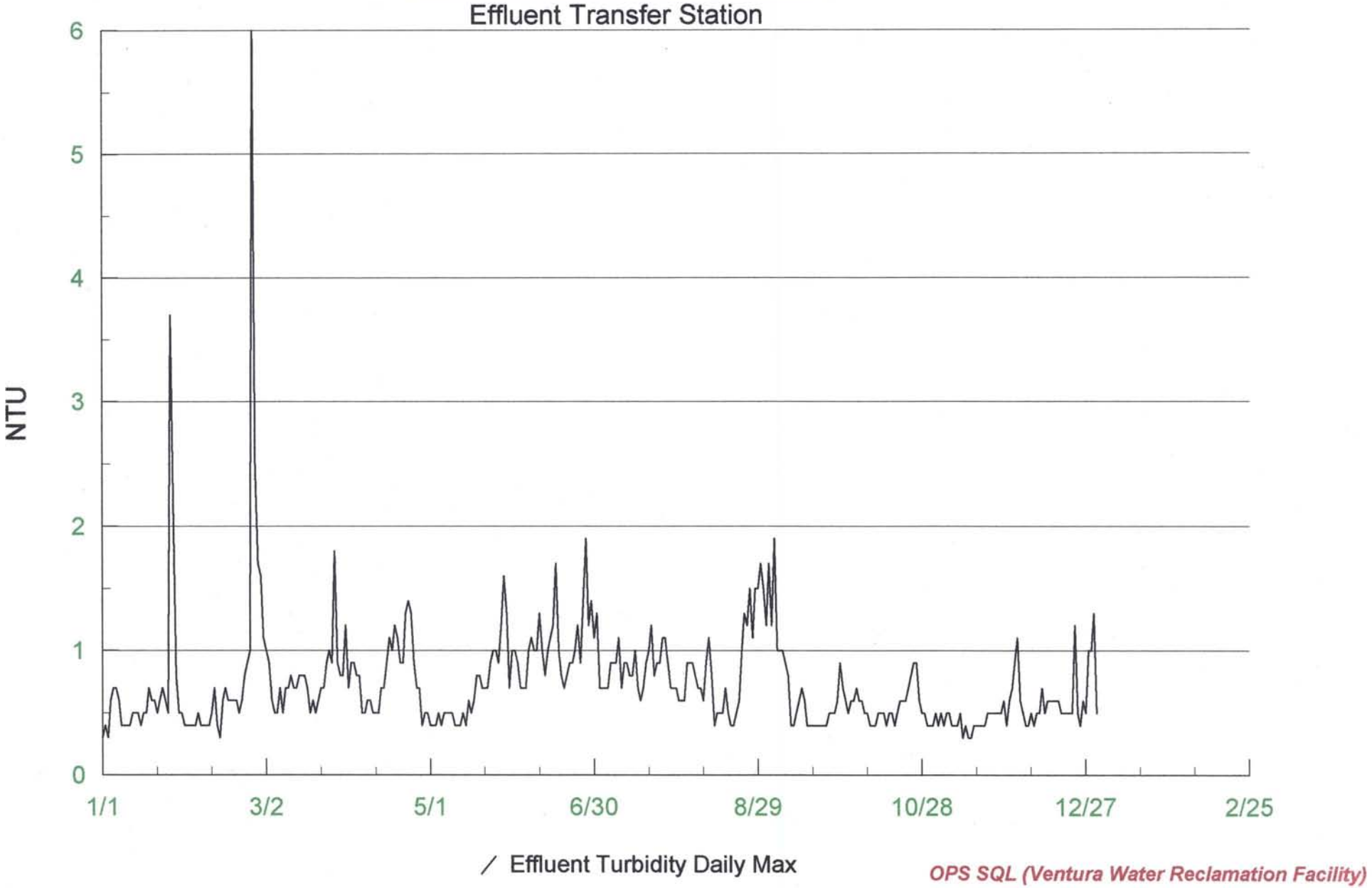

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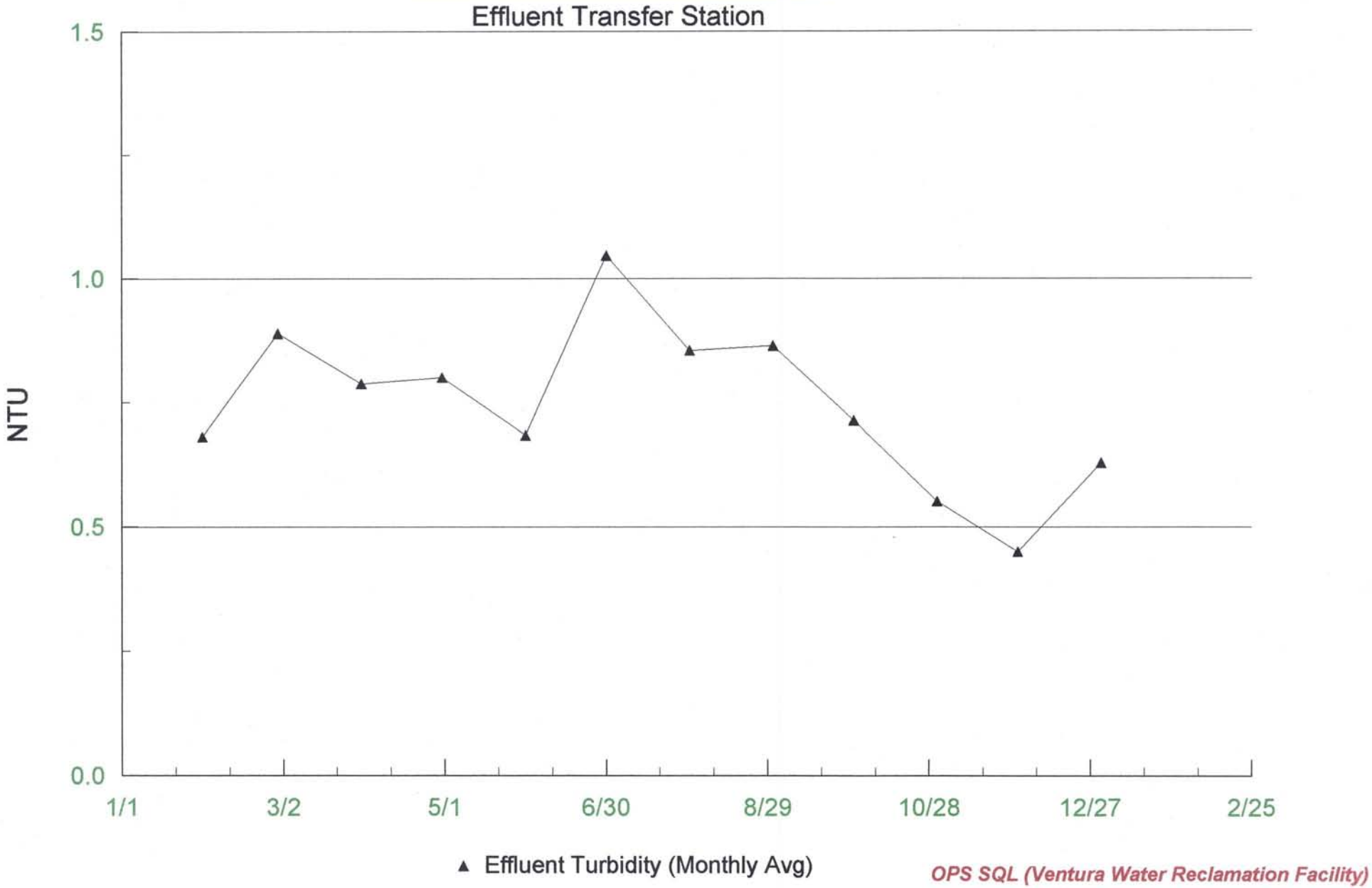

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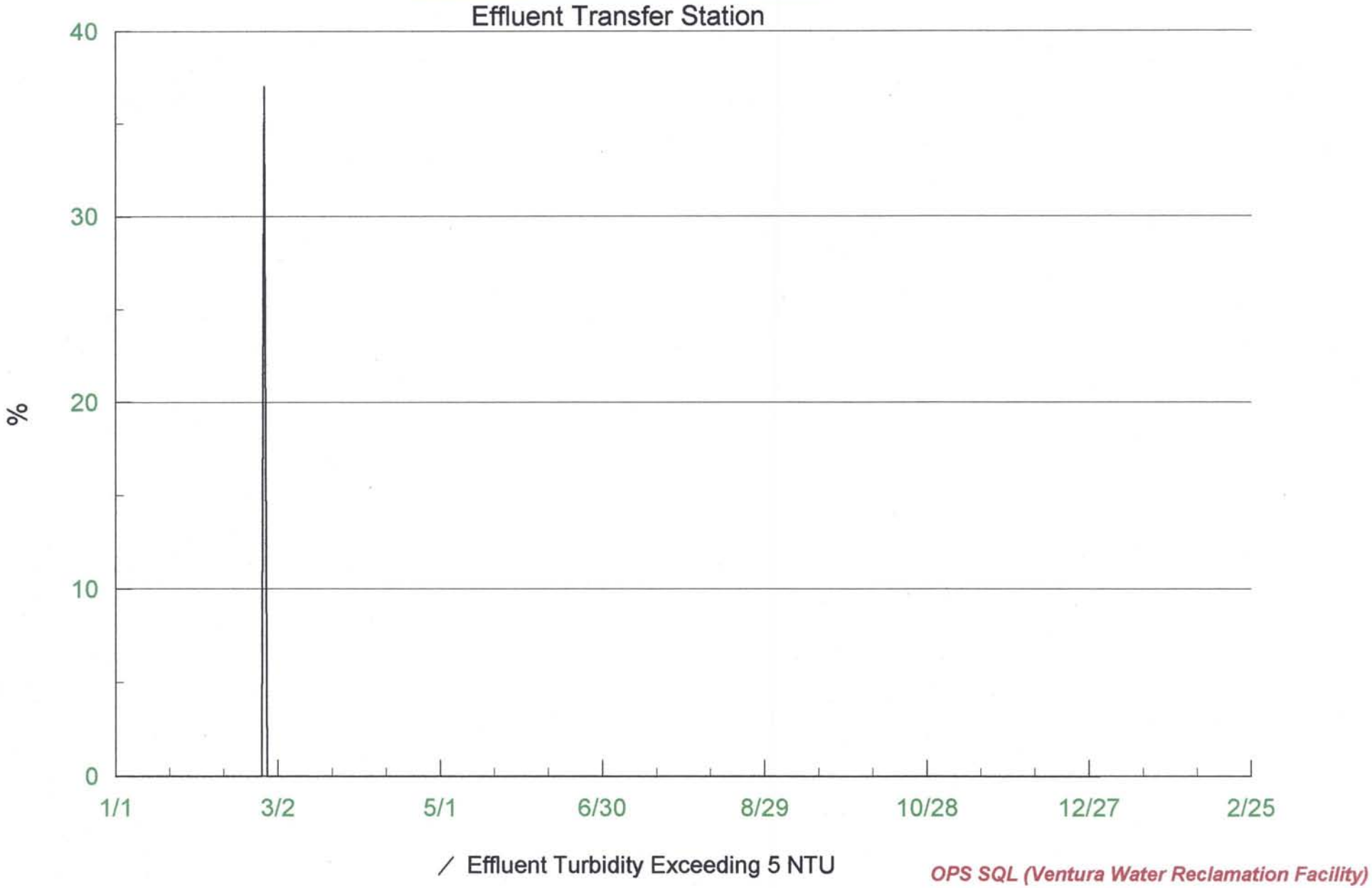

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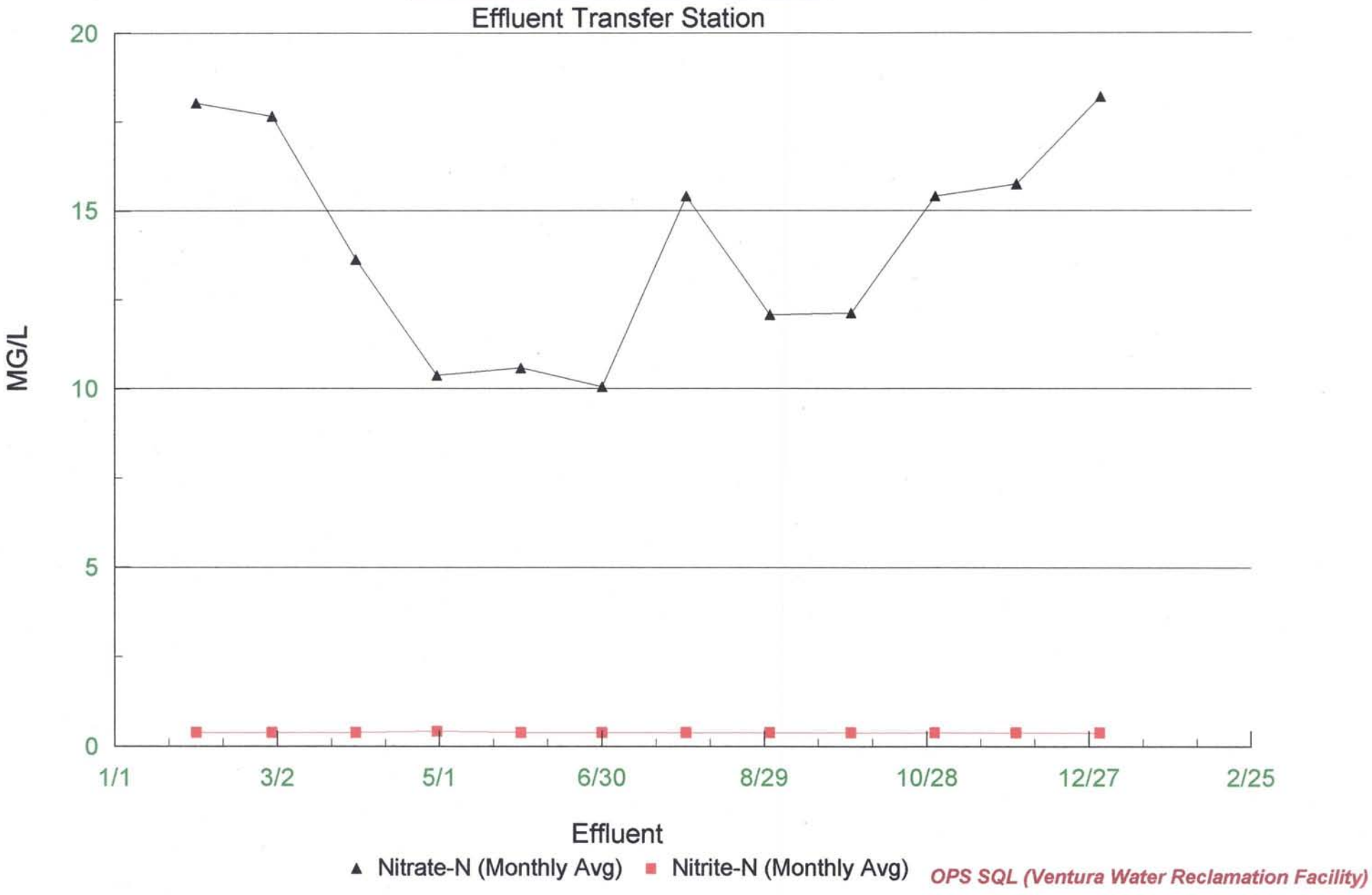

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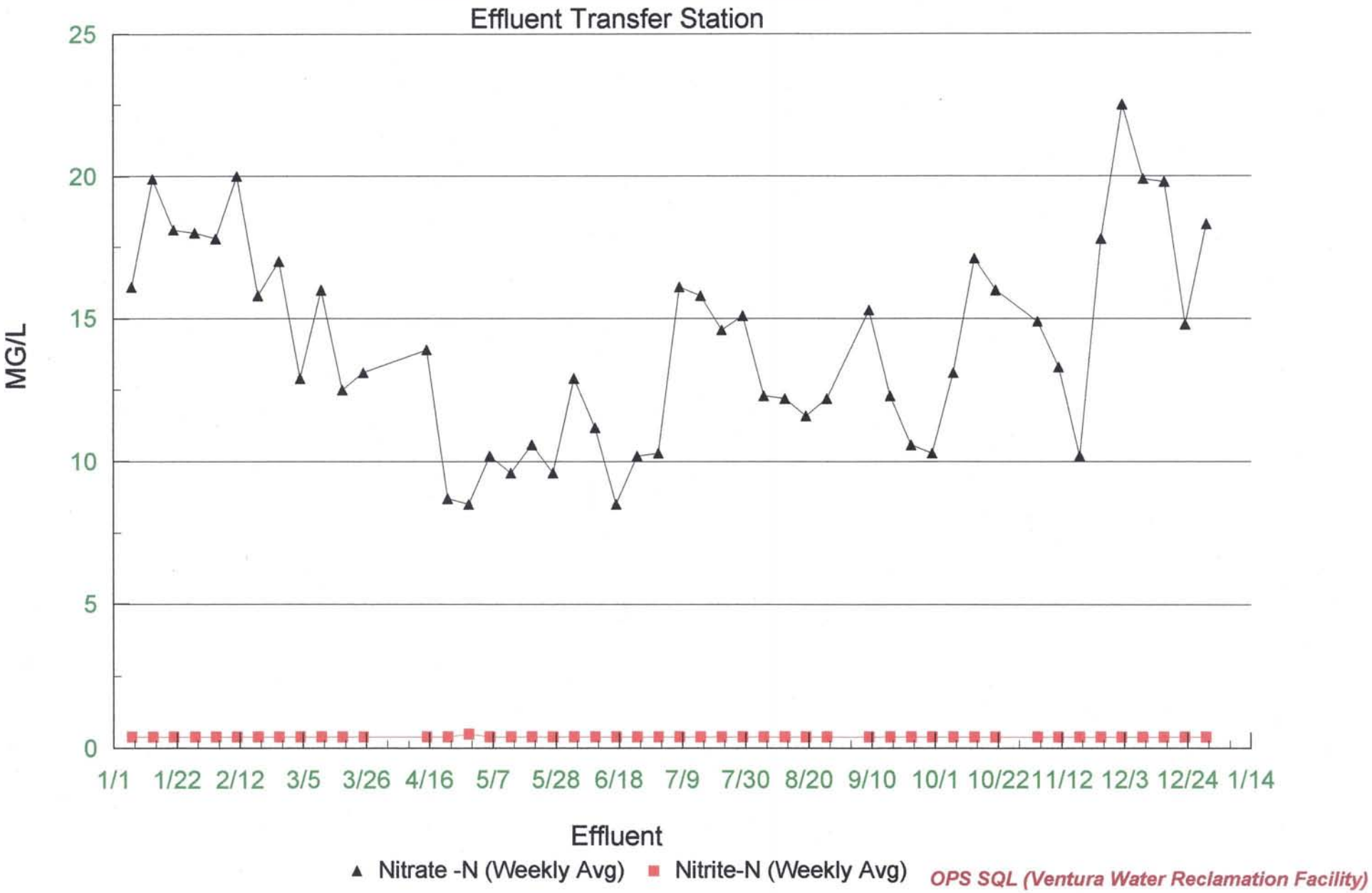

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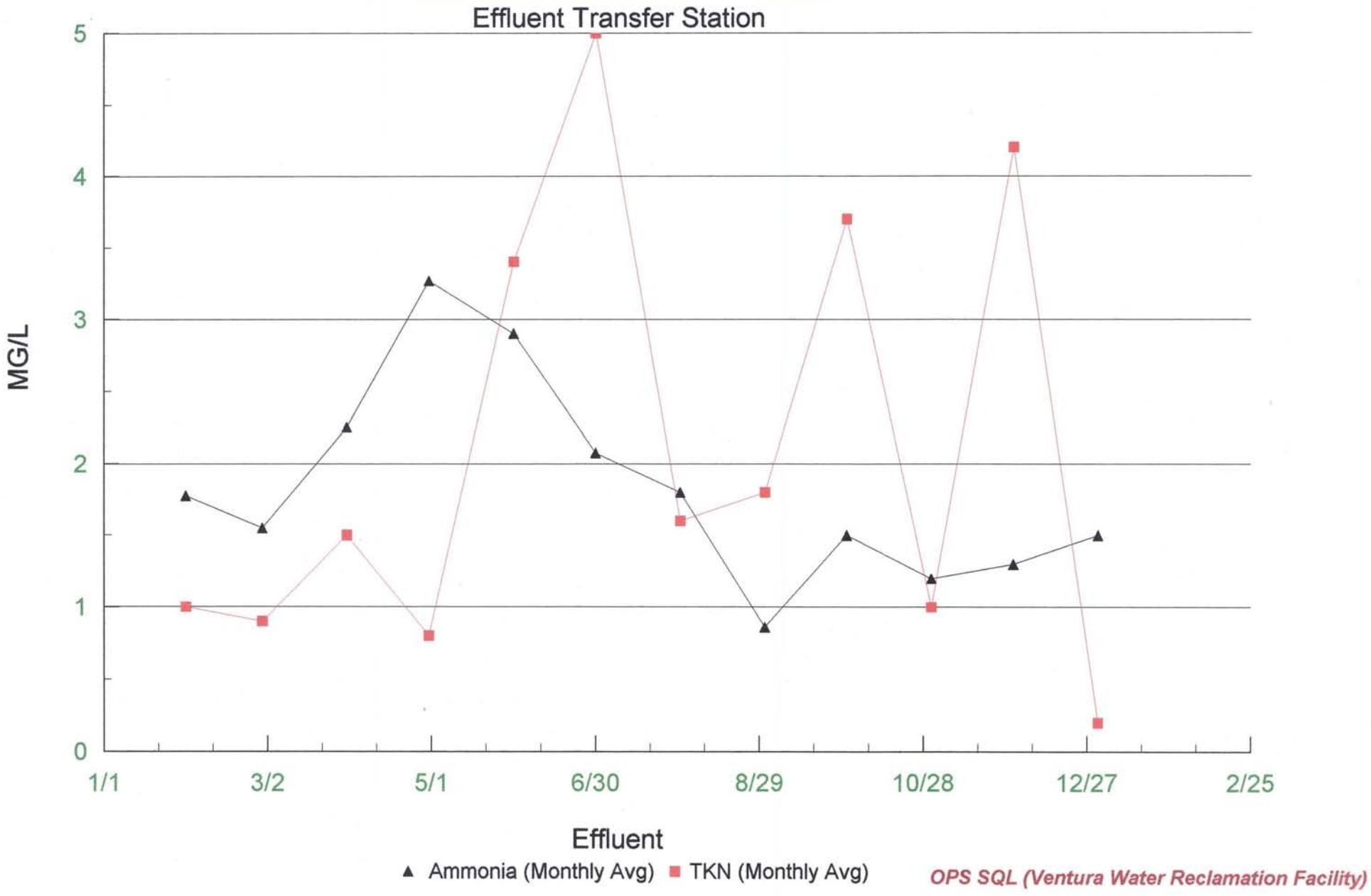

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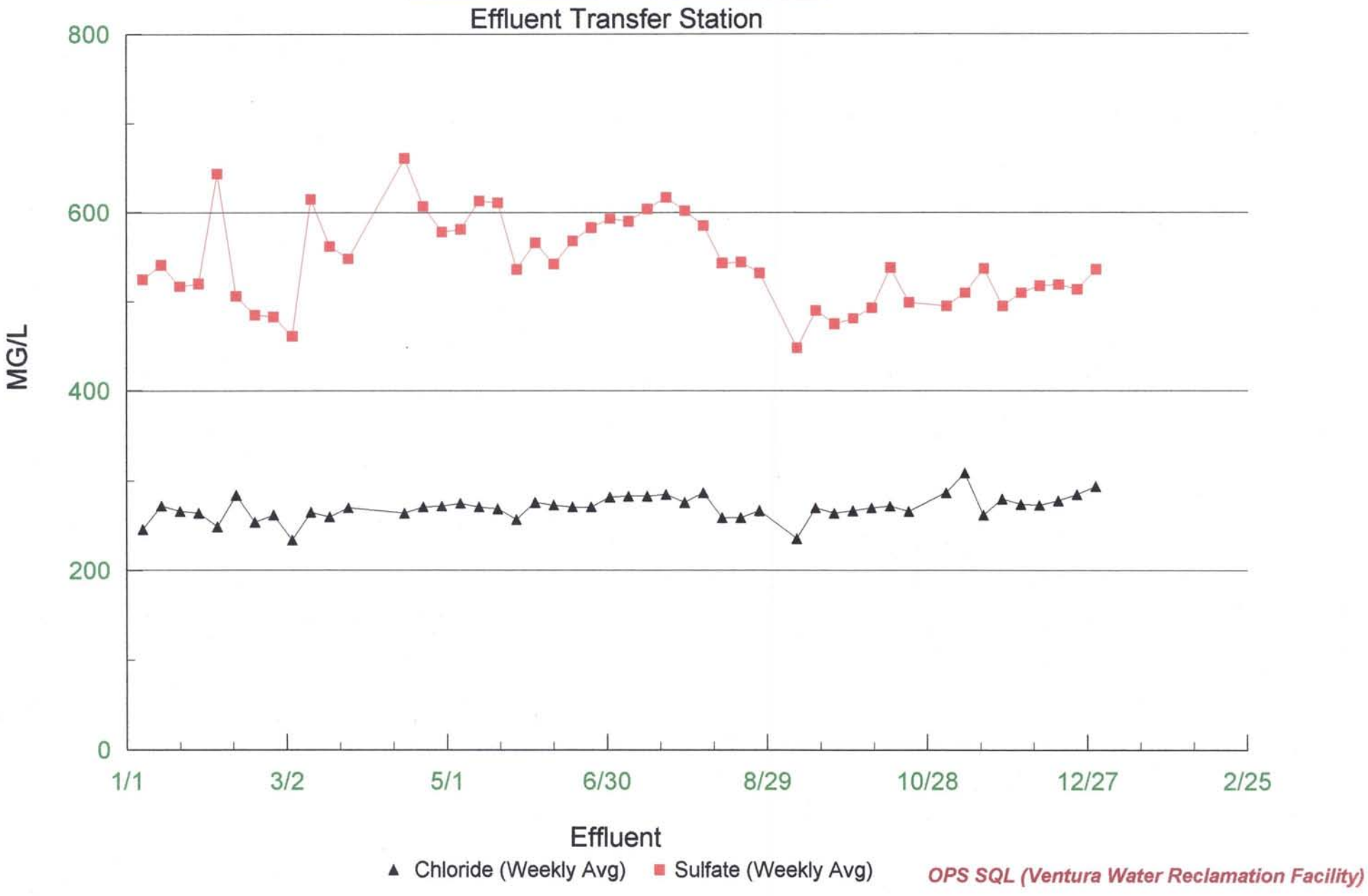

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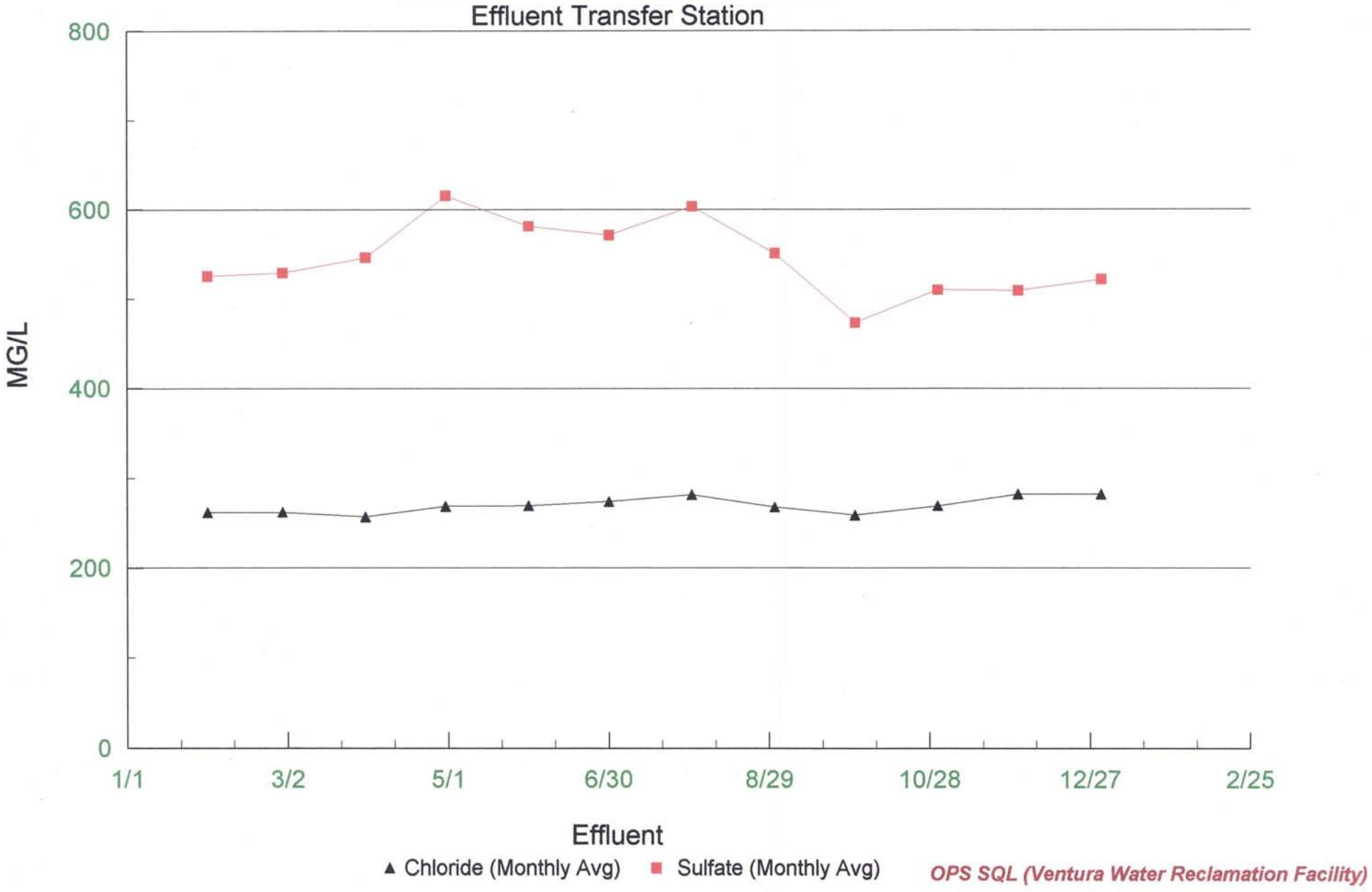

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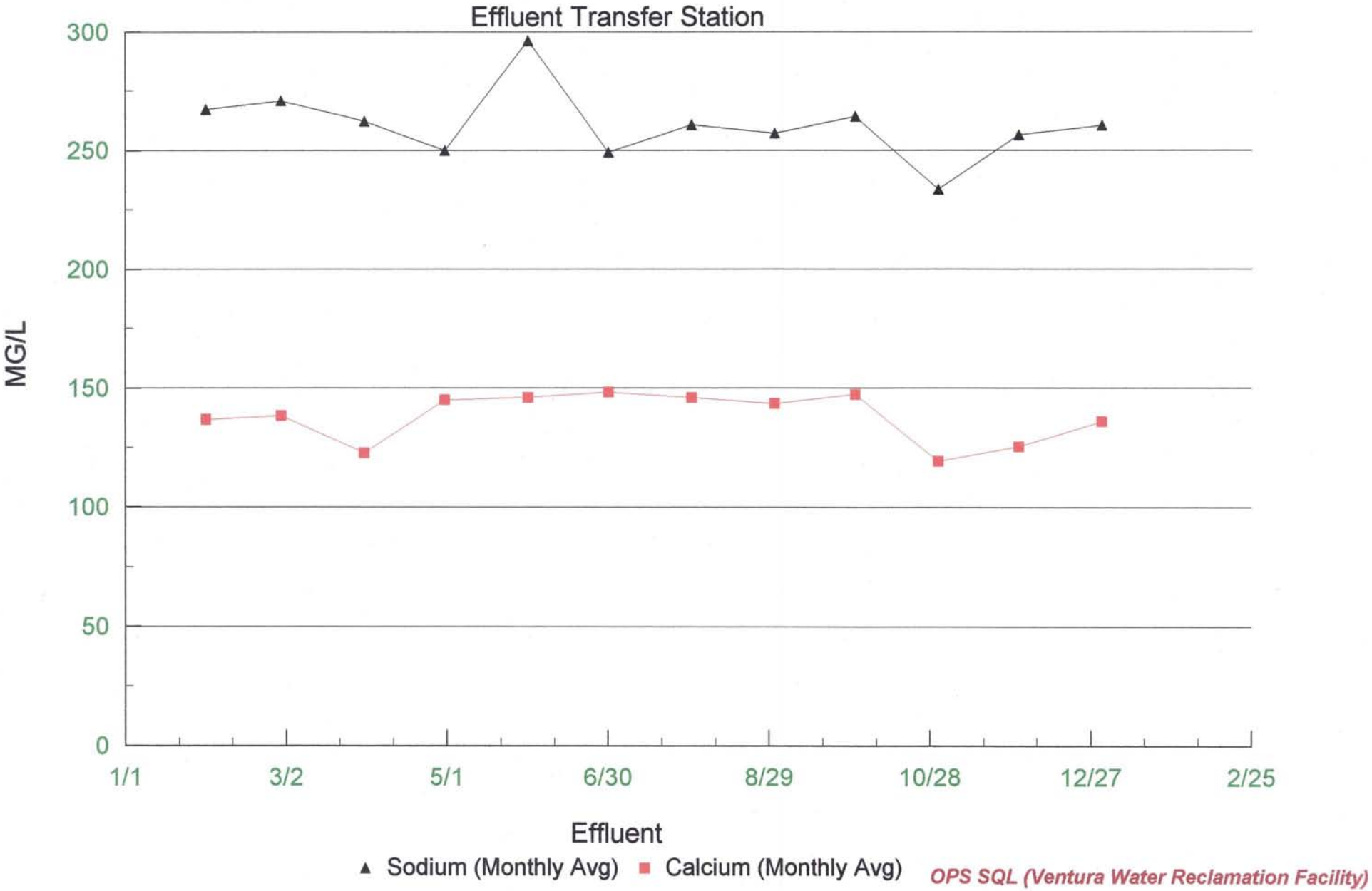

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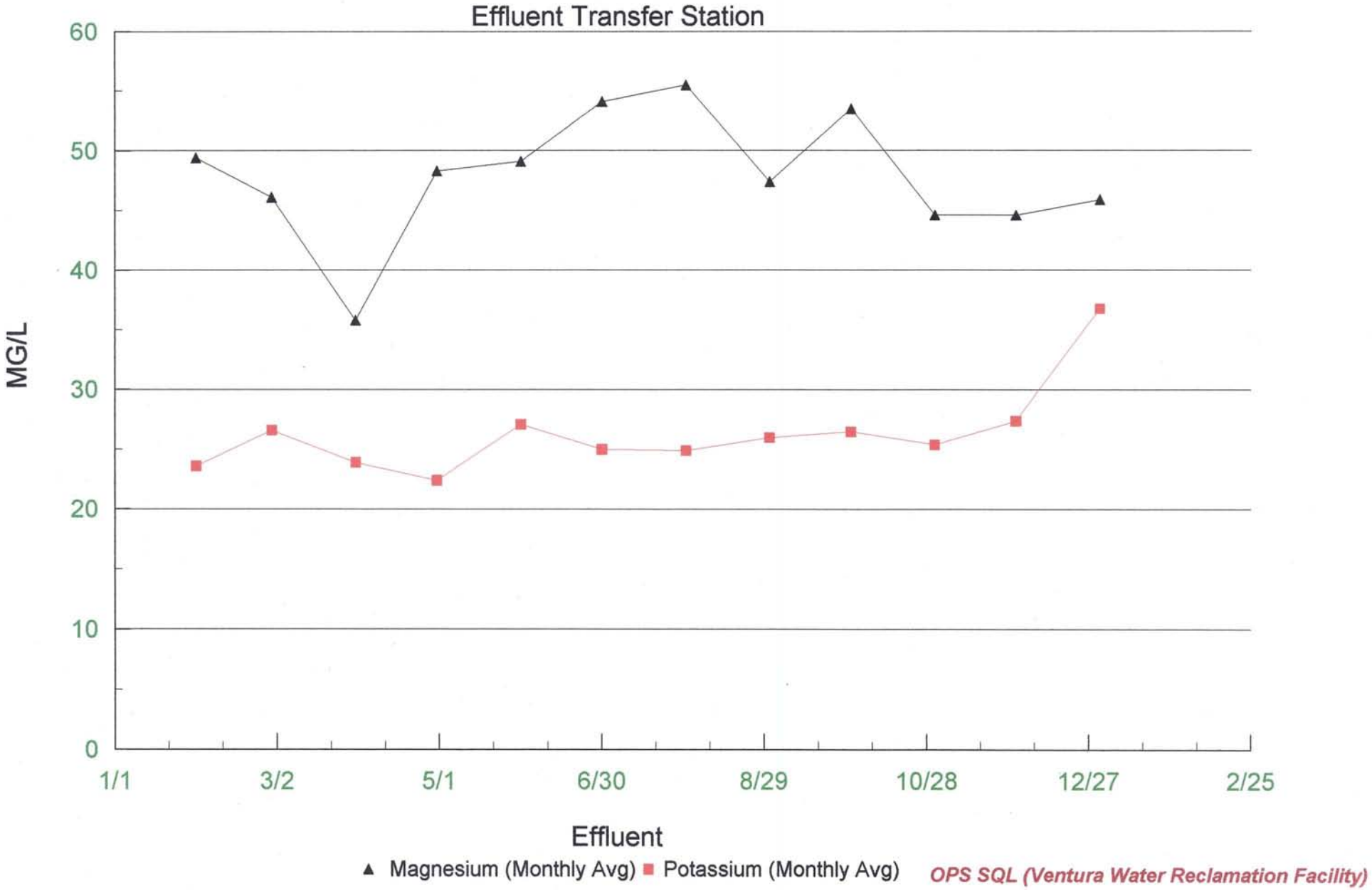

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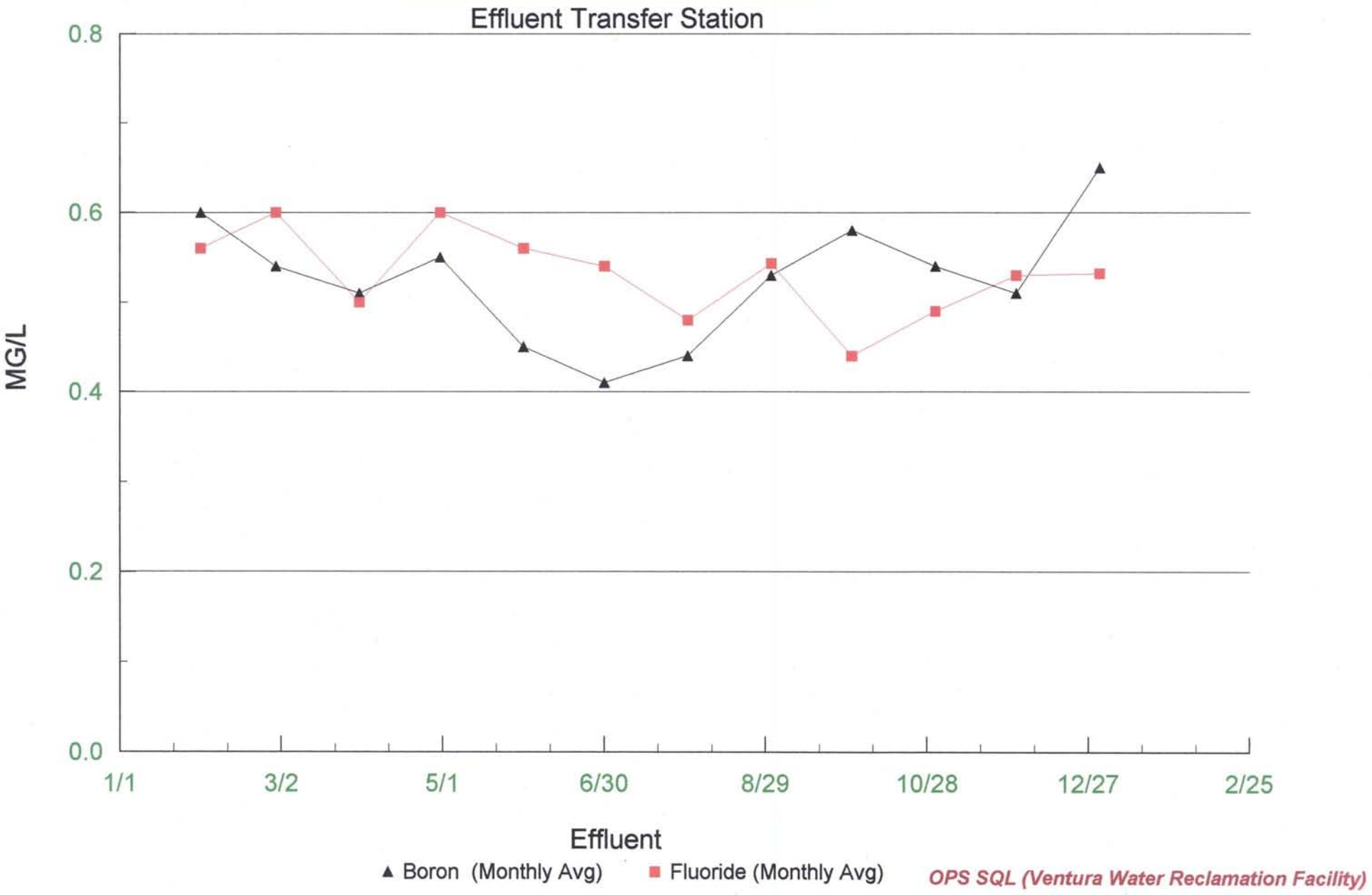

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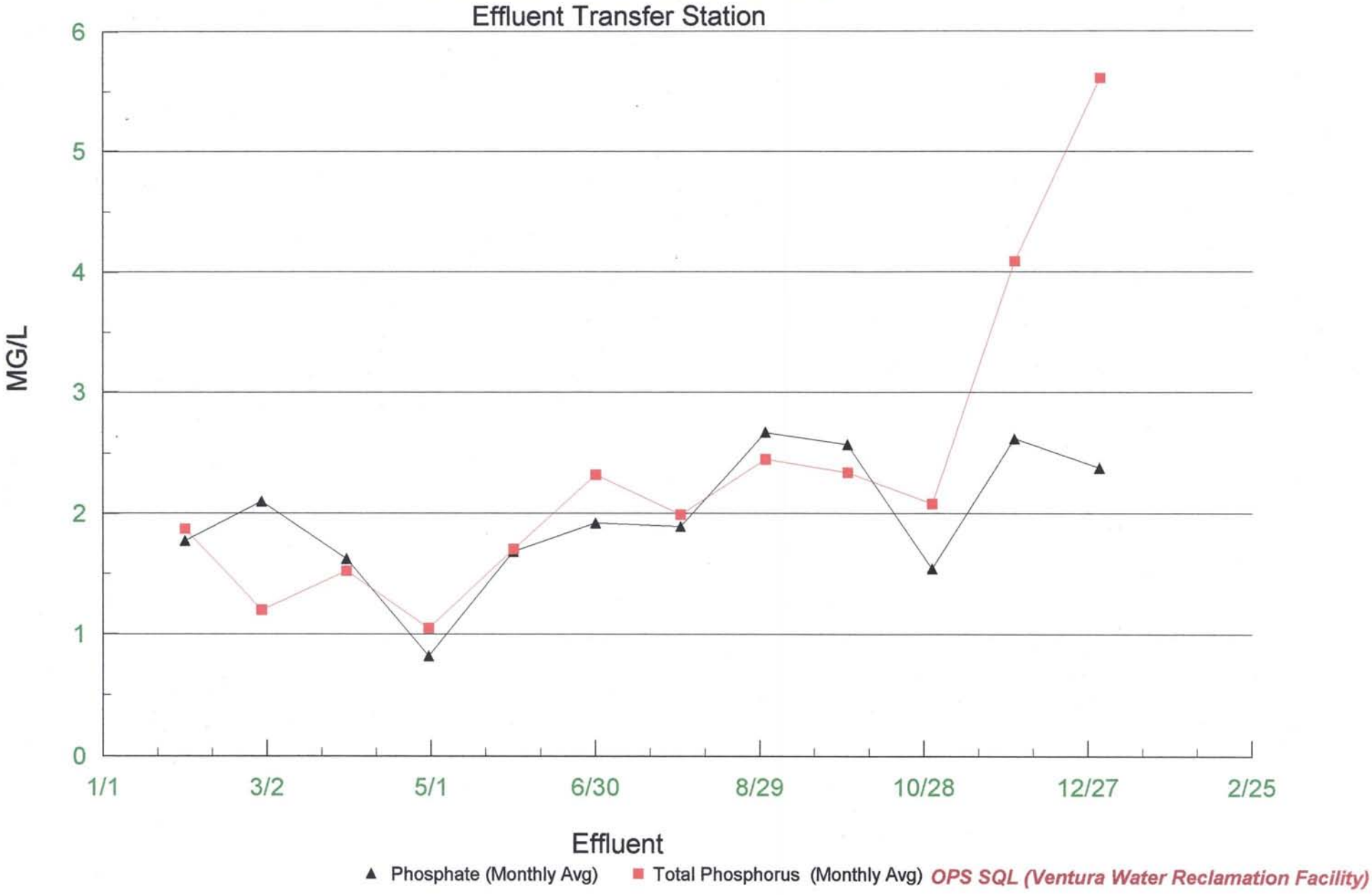

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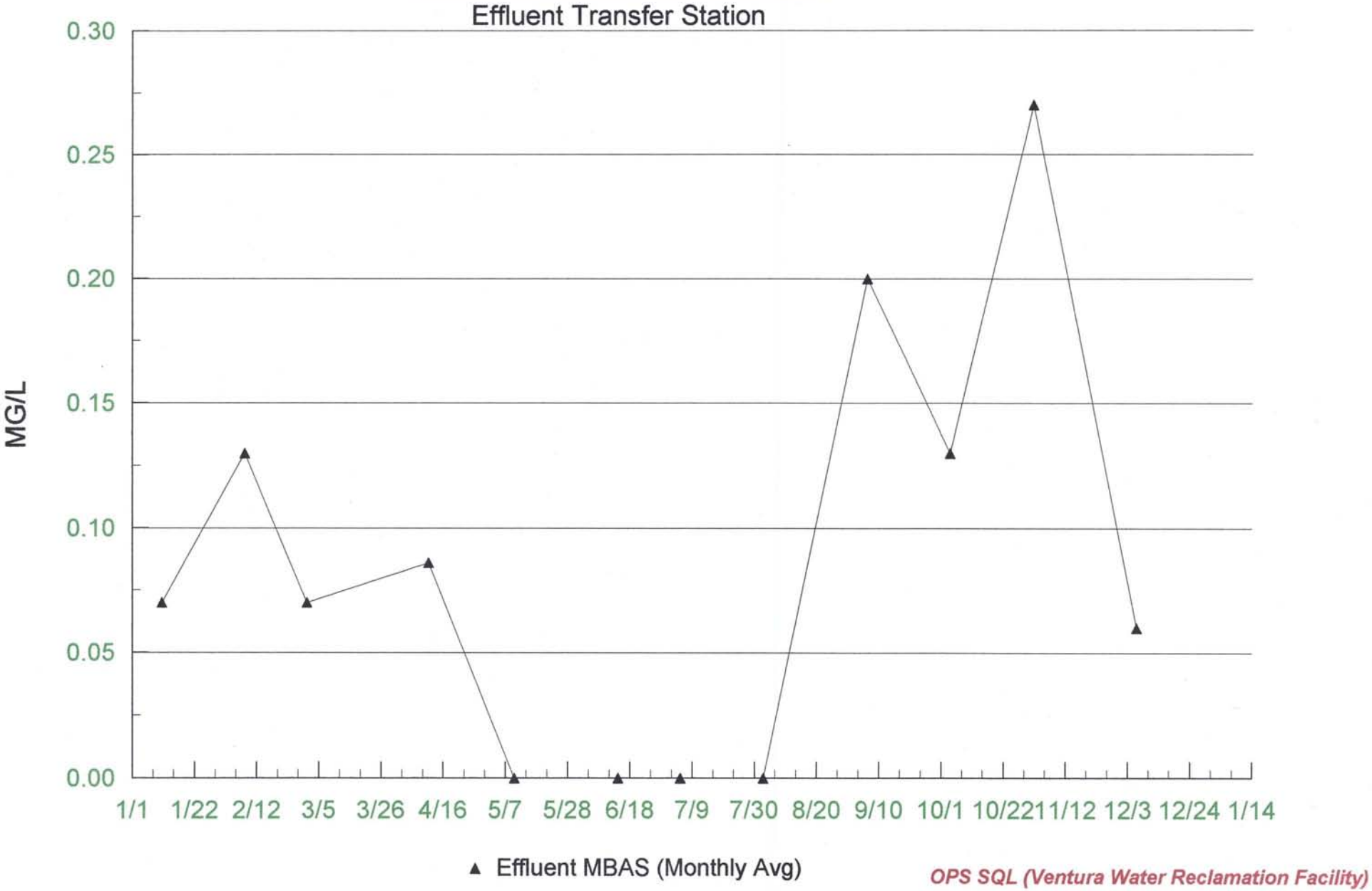

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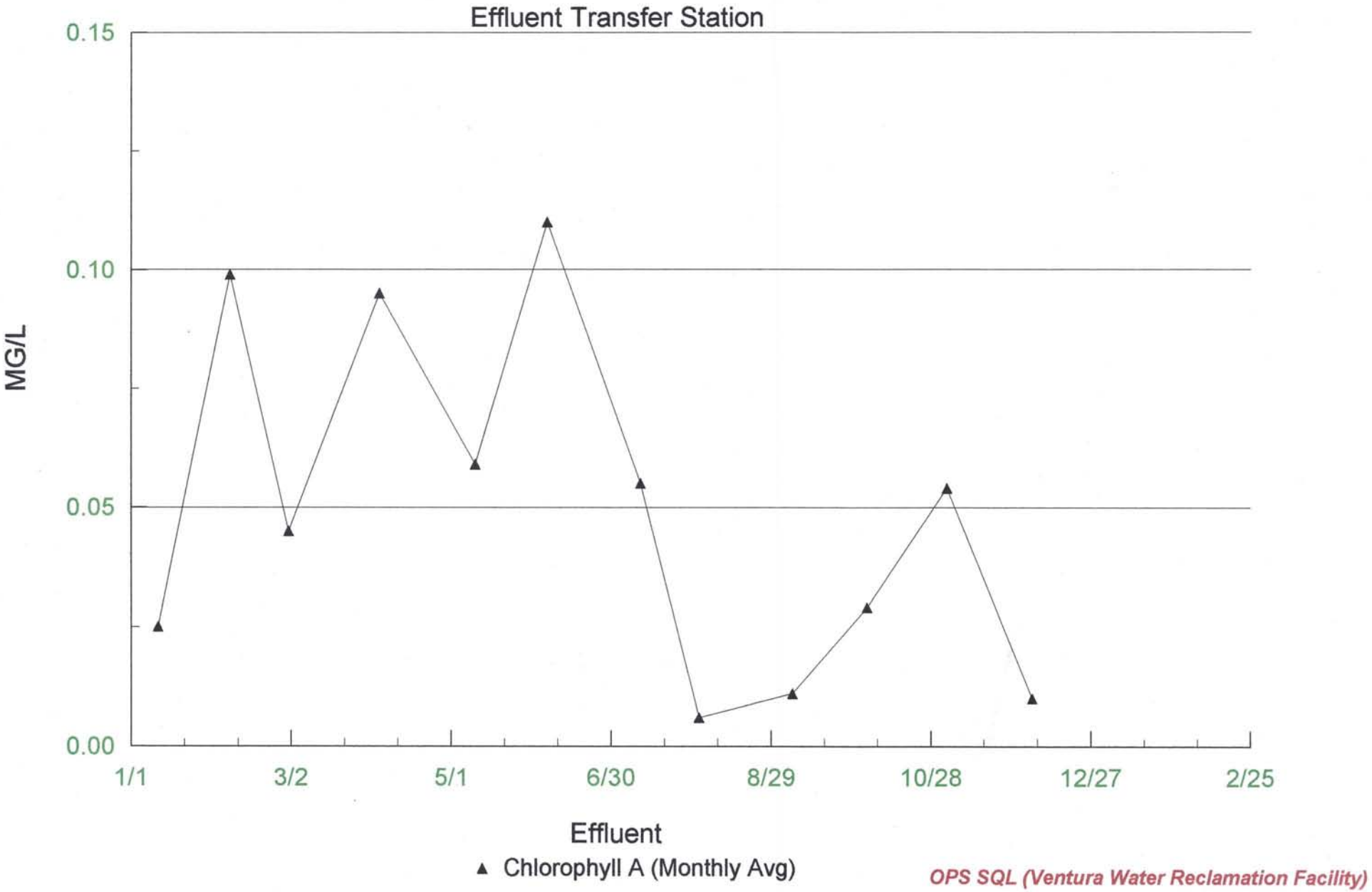

OPS SQL (Ventura Water Reclamation Facility)

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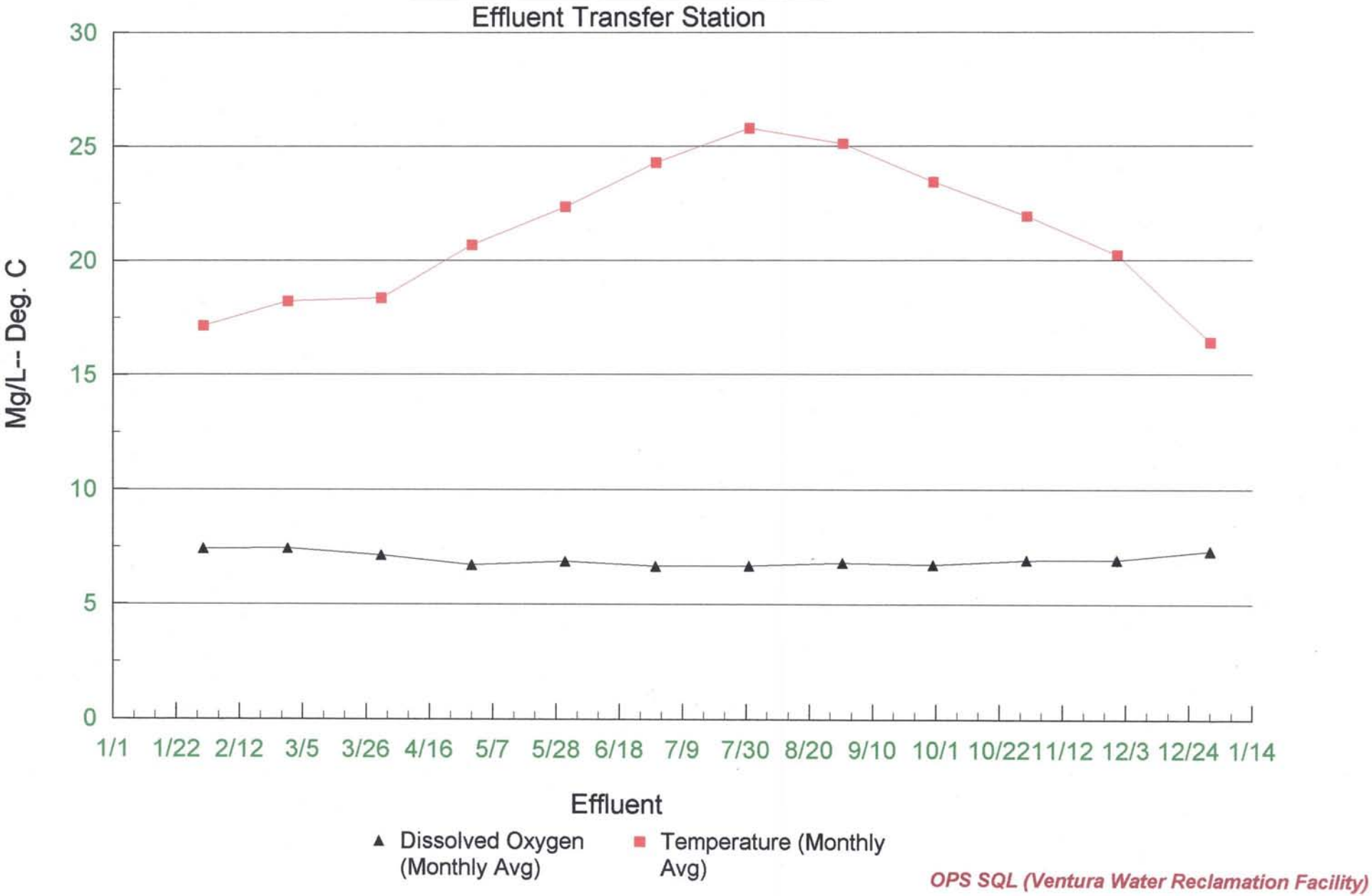

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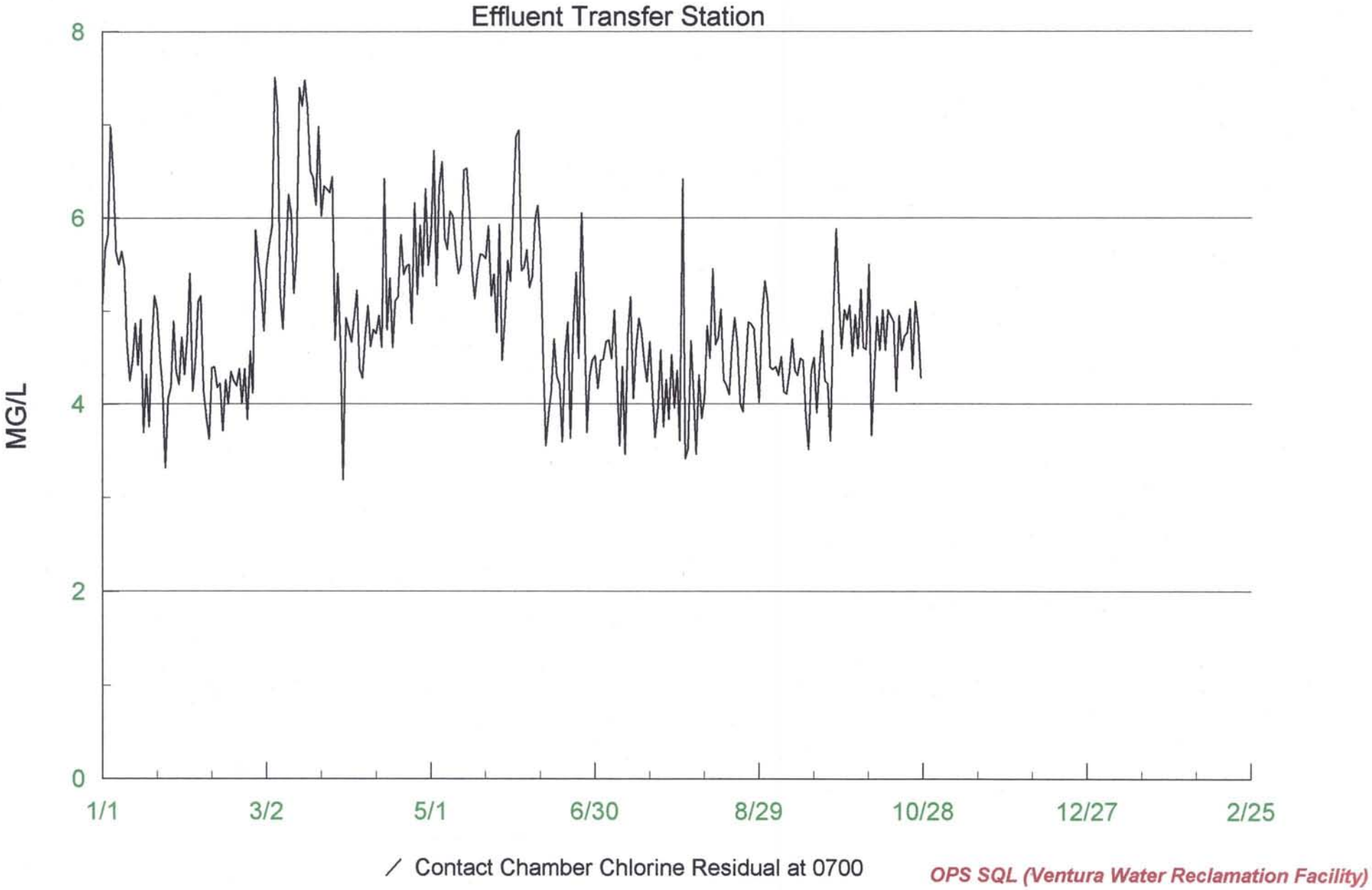

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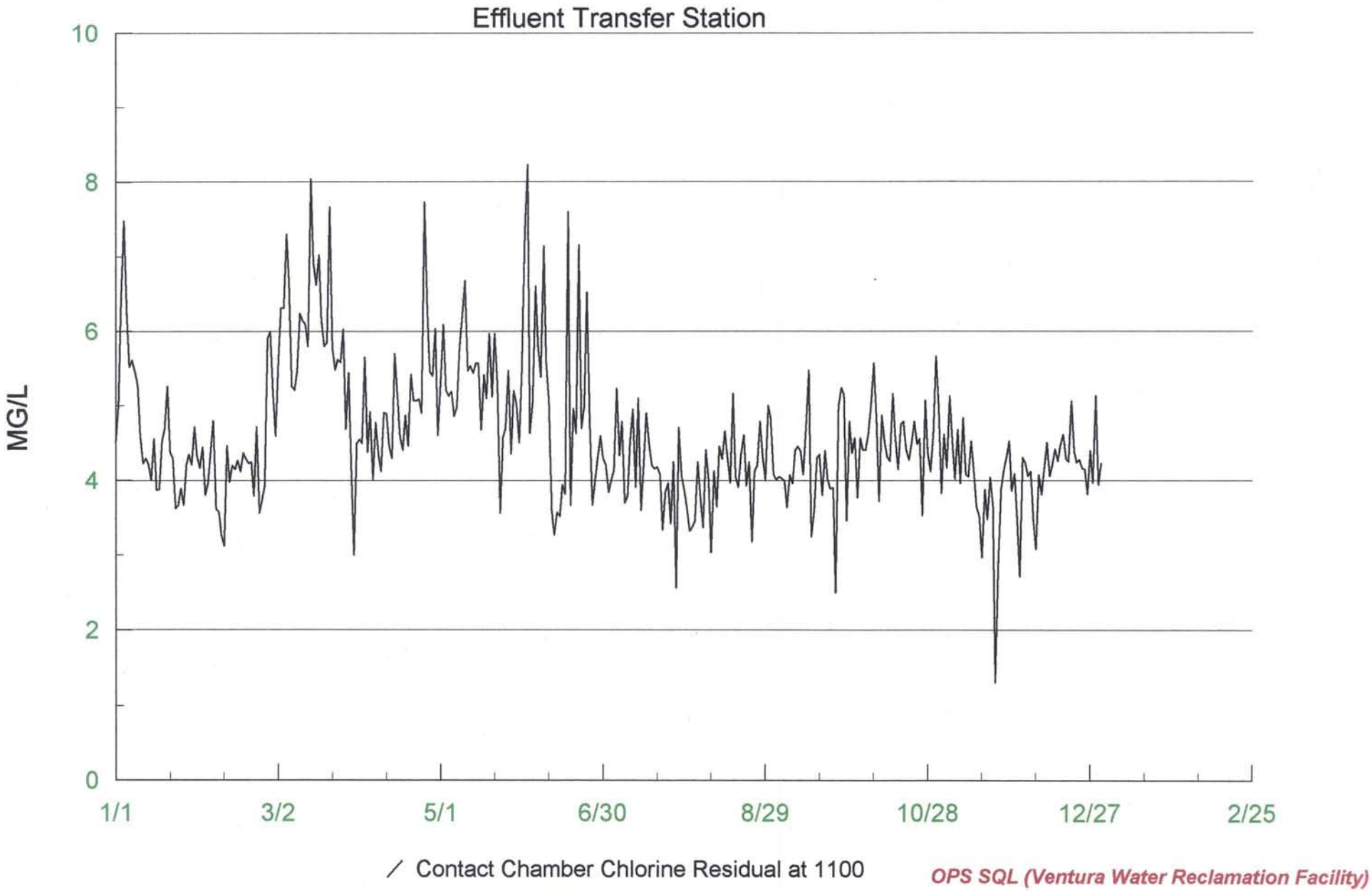

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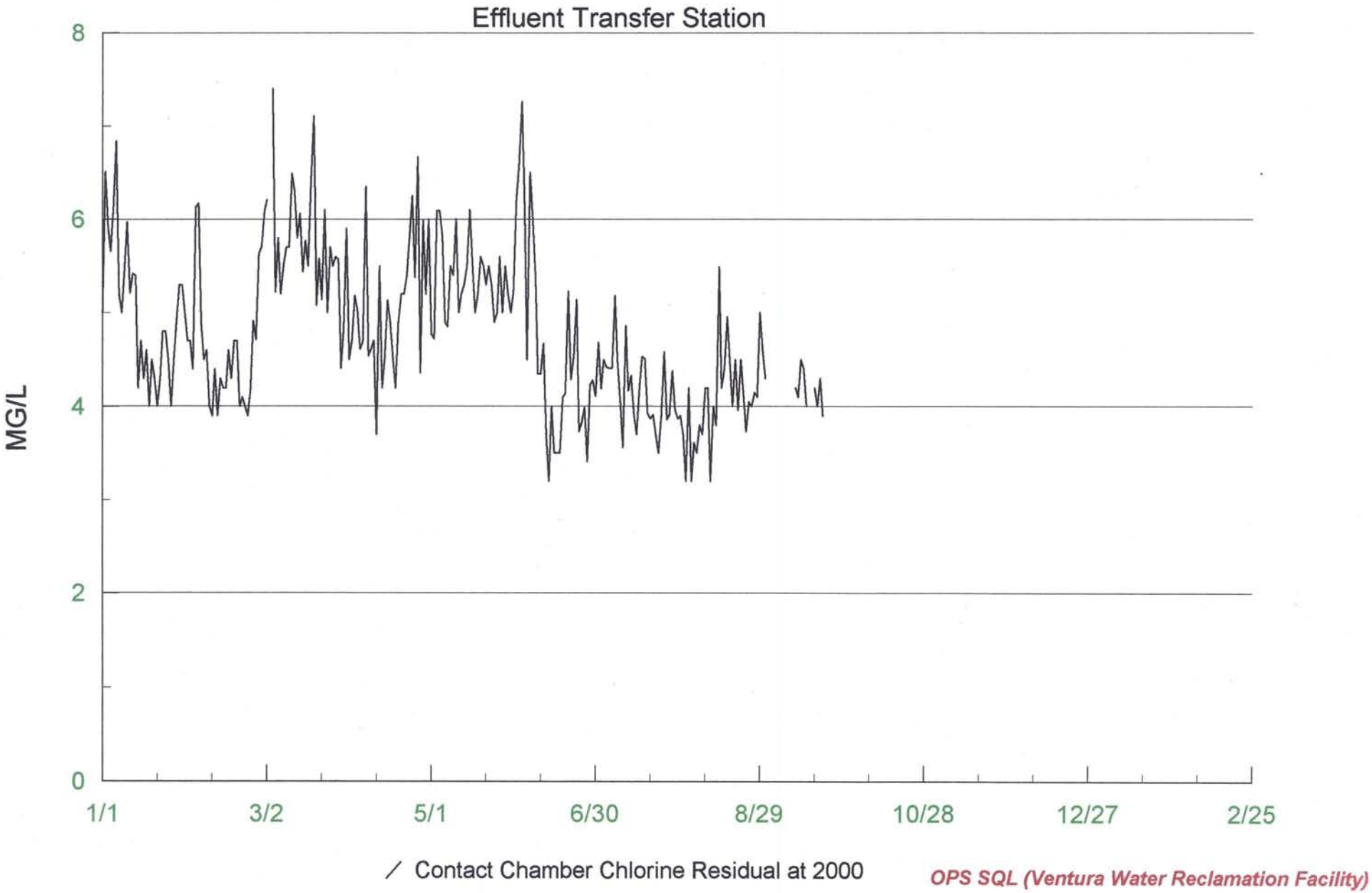

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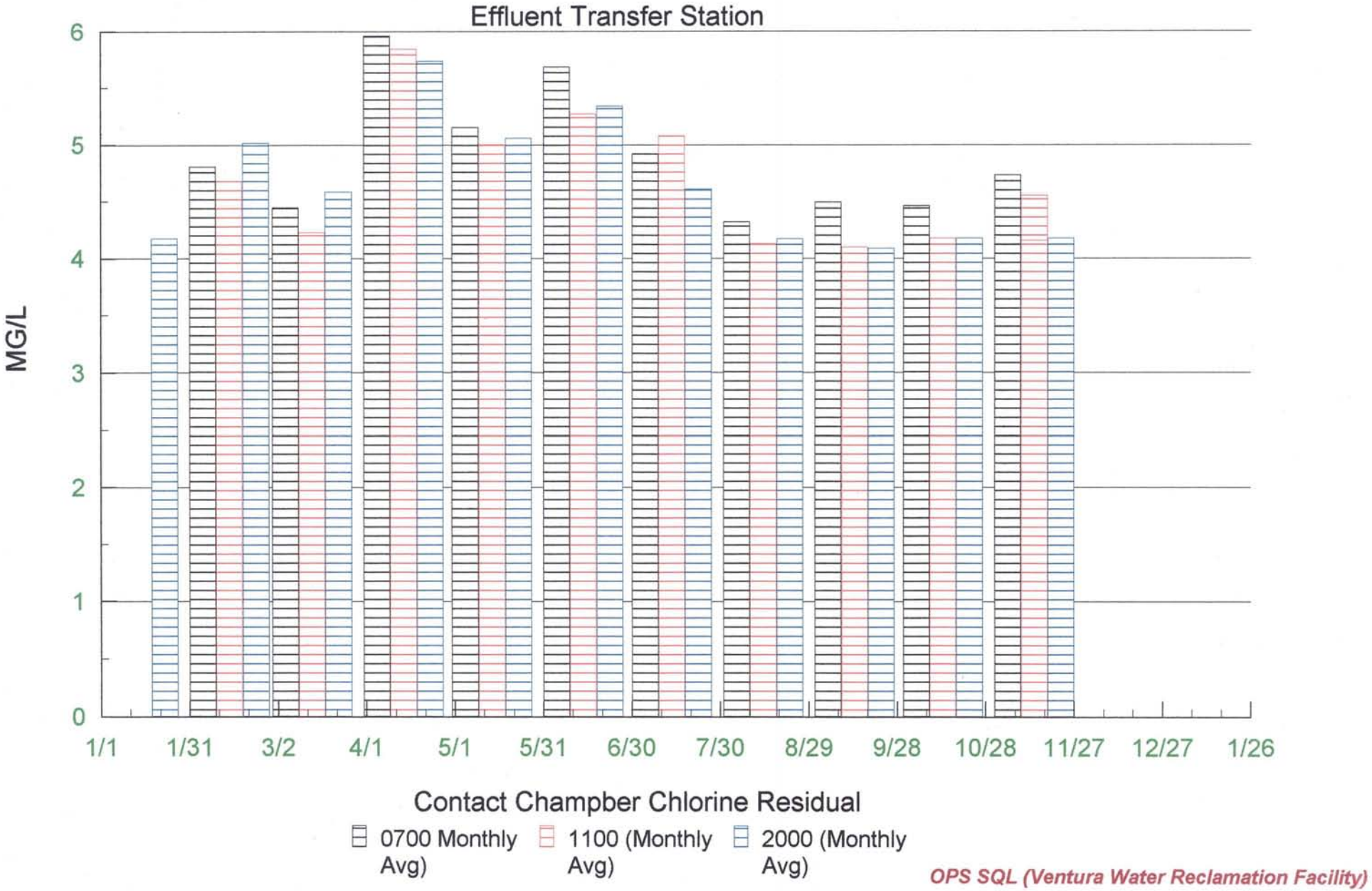

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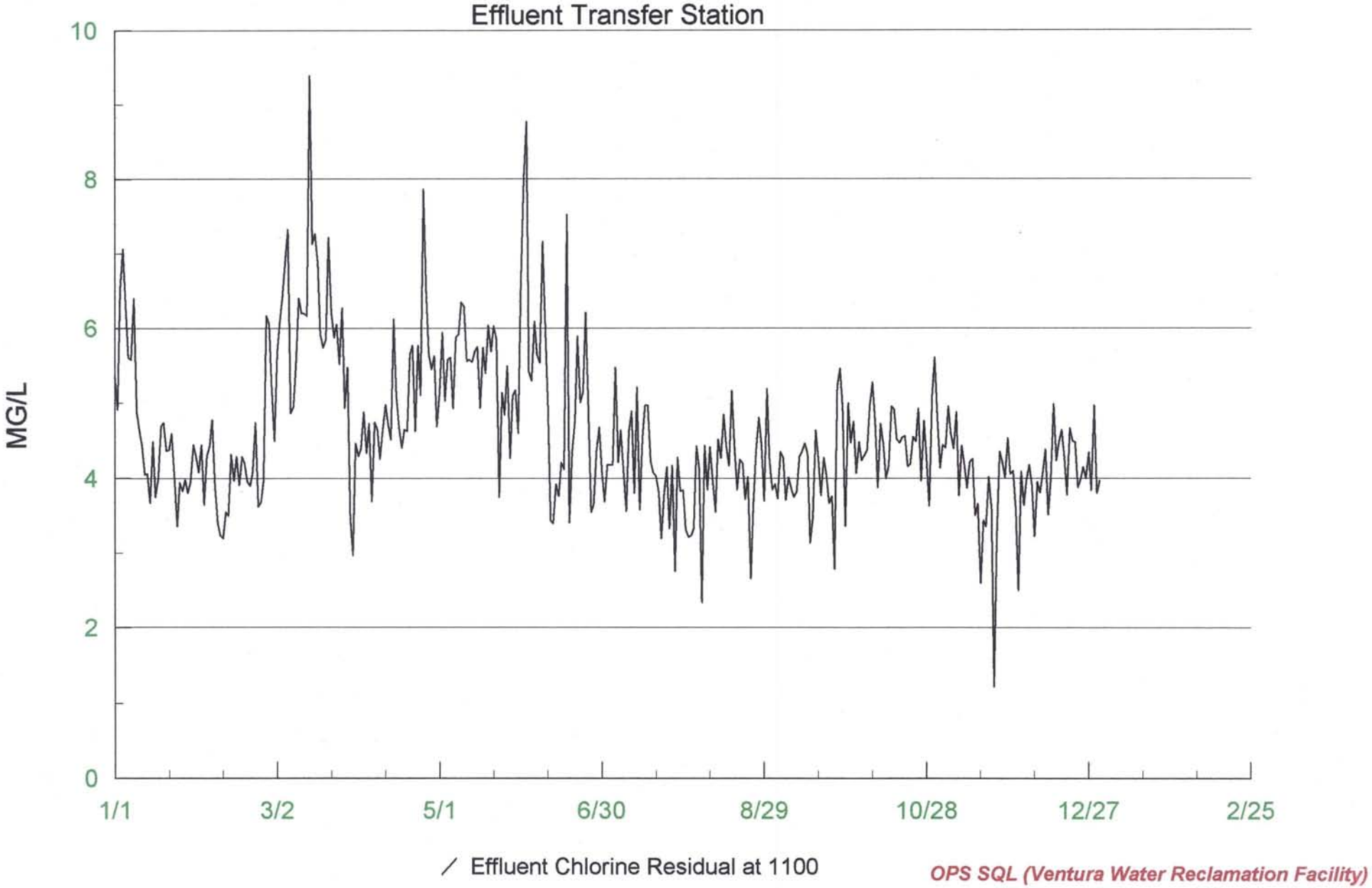

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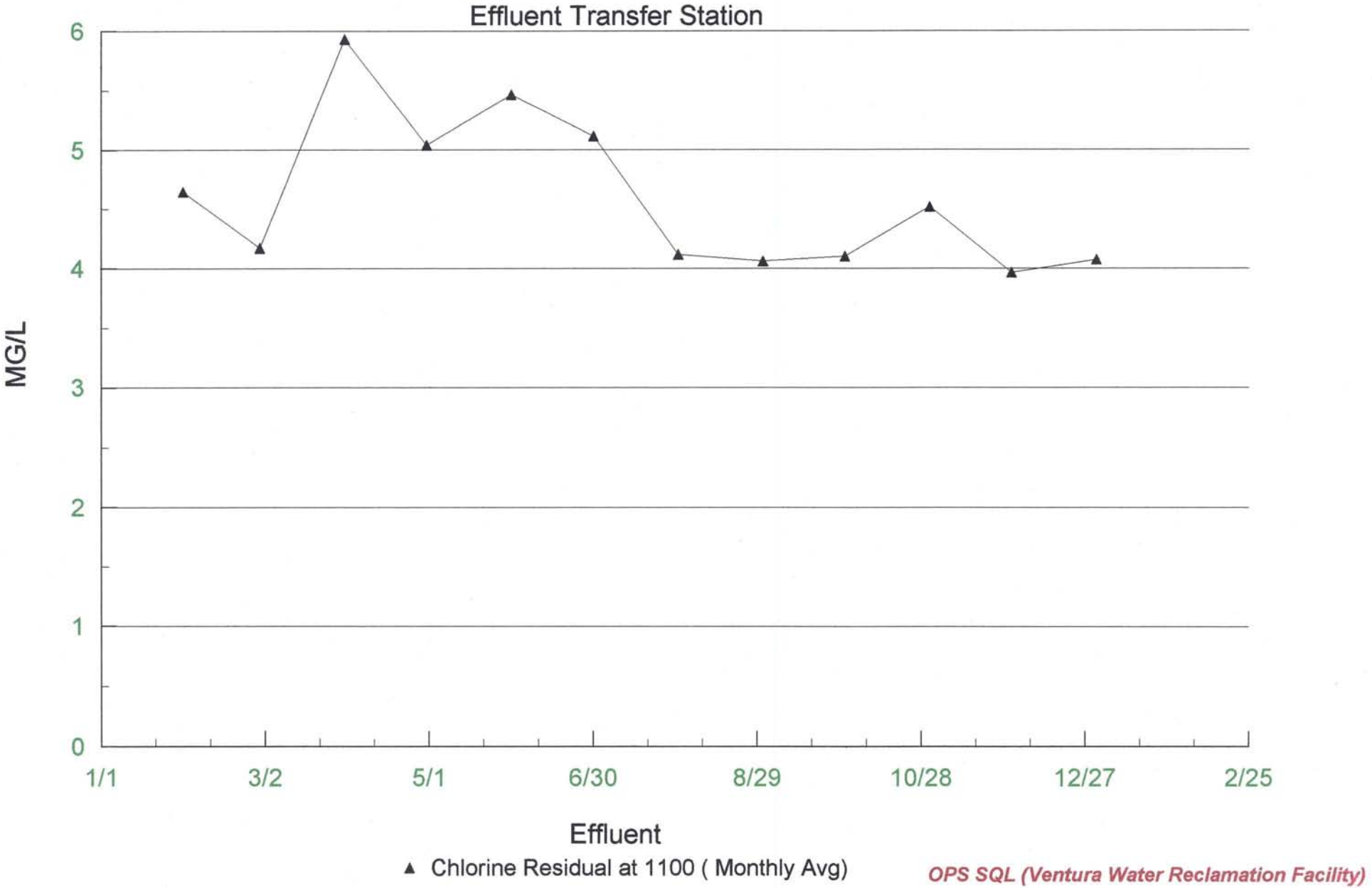

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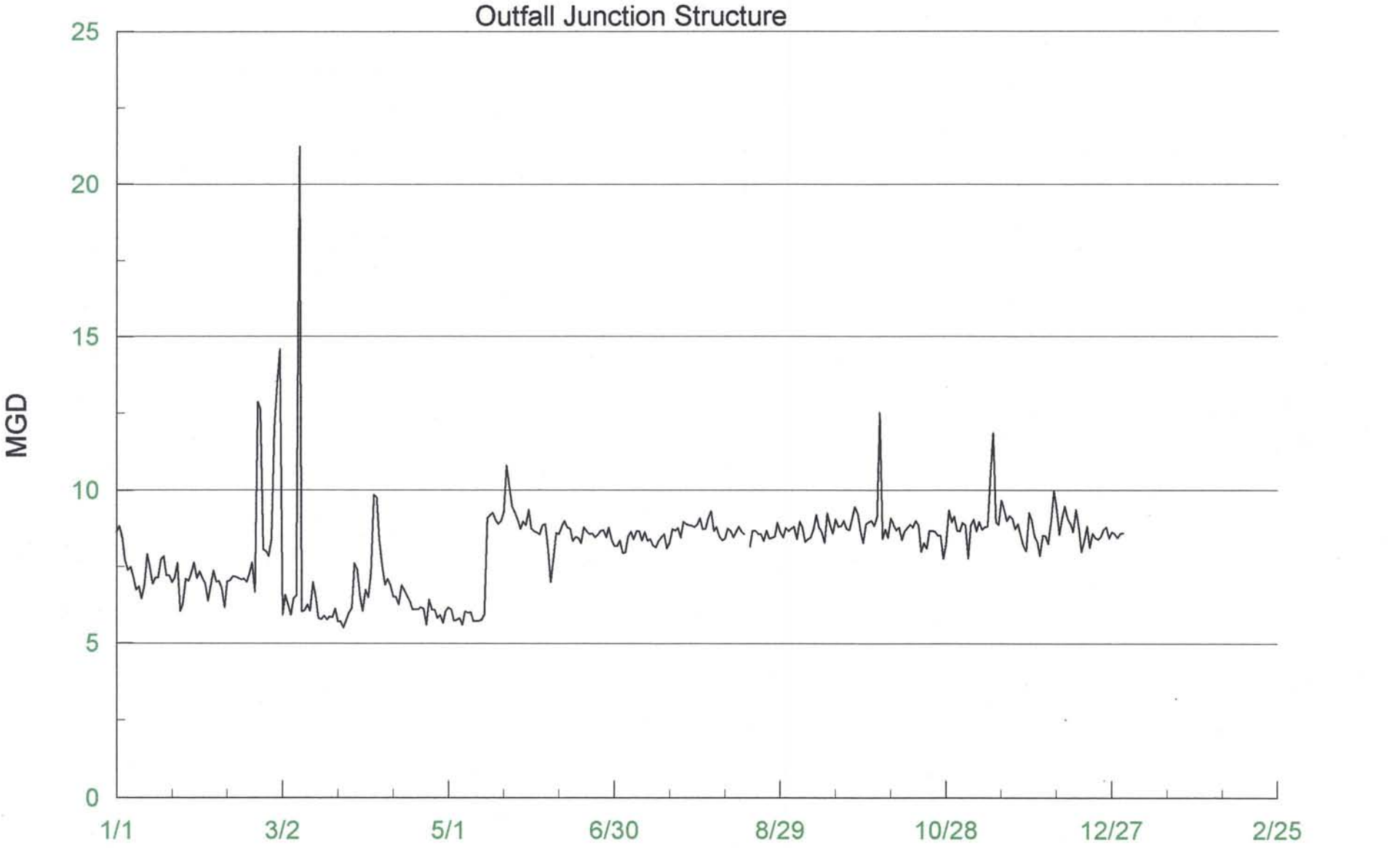

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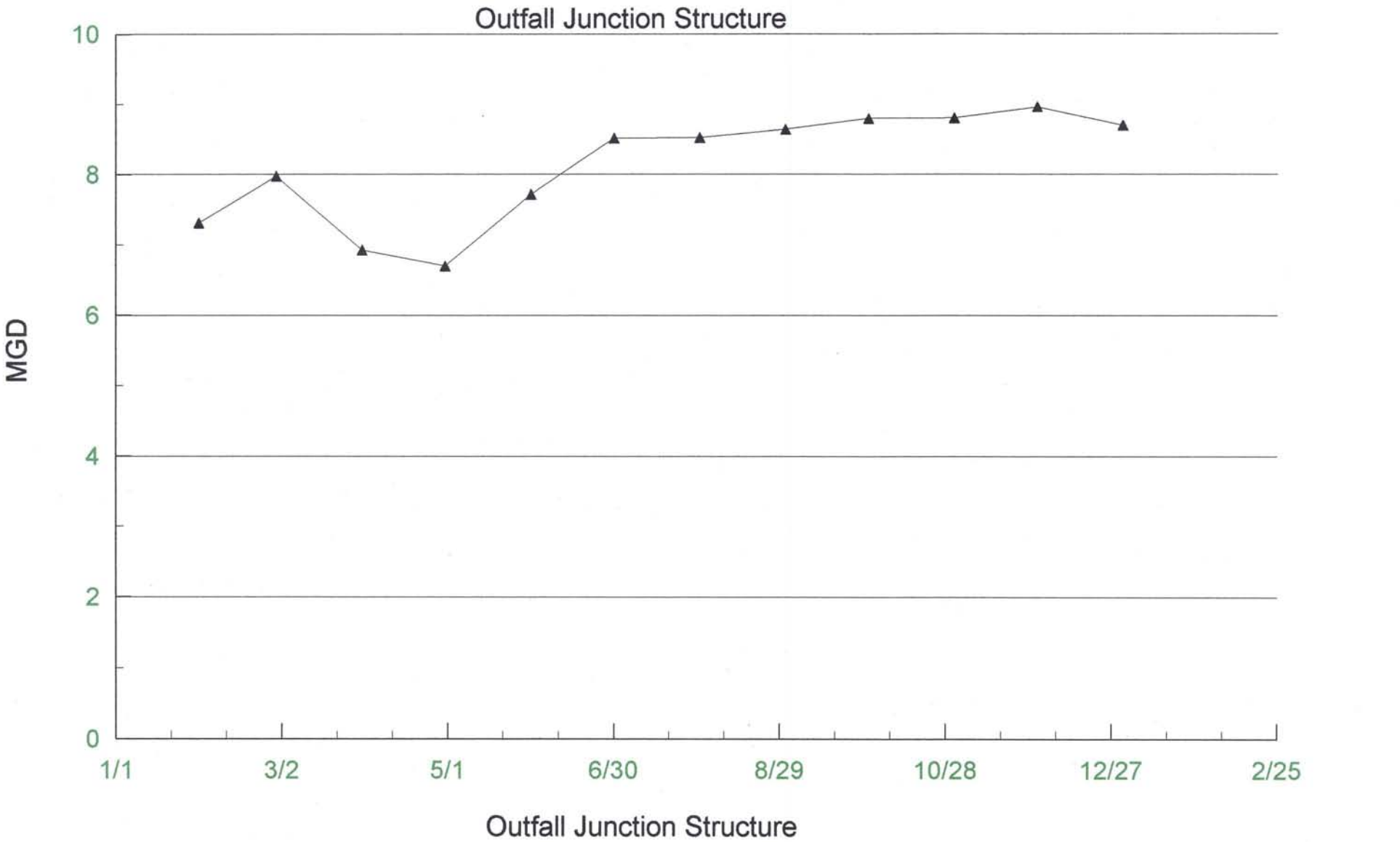

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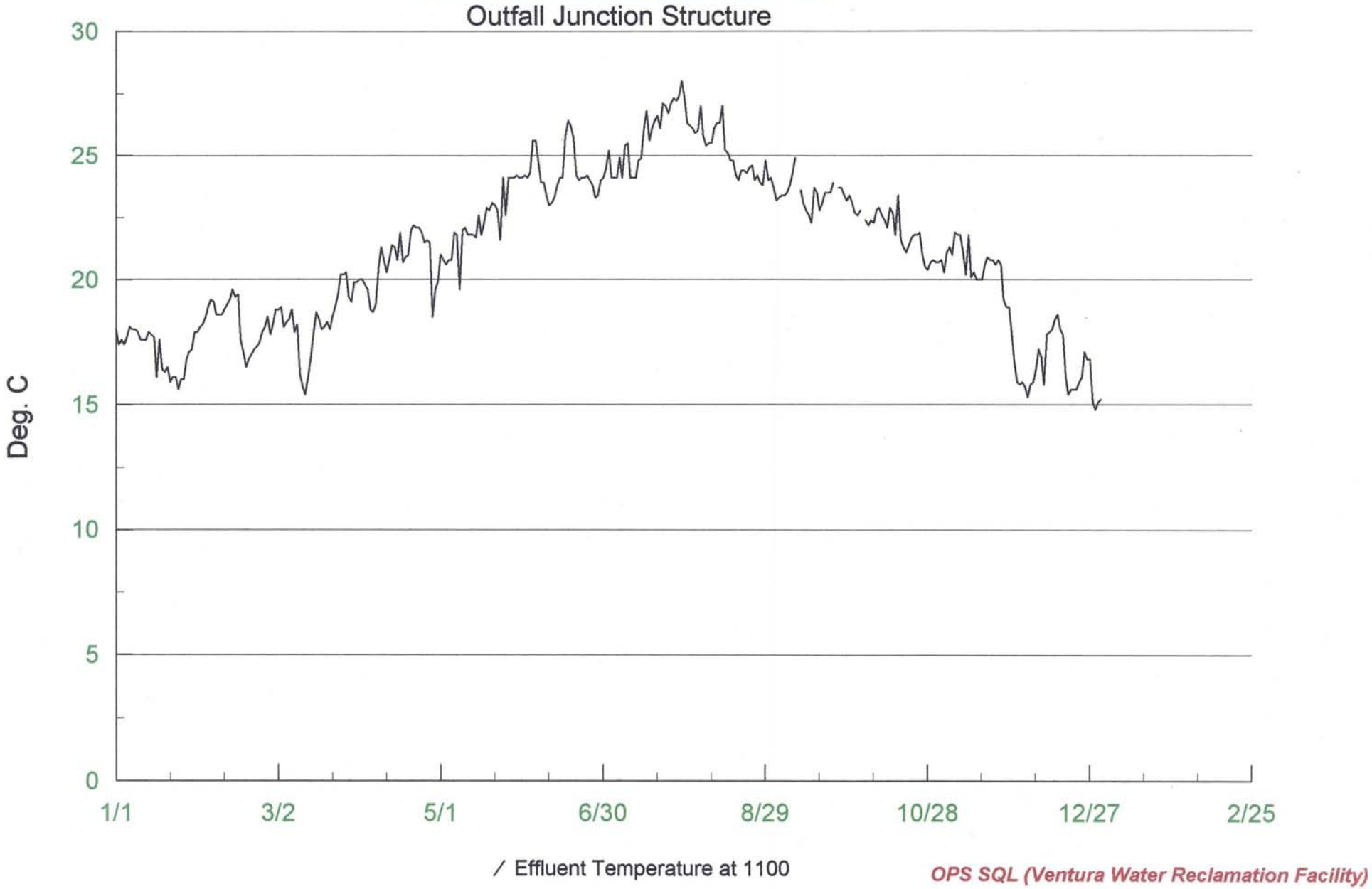

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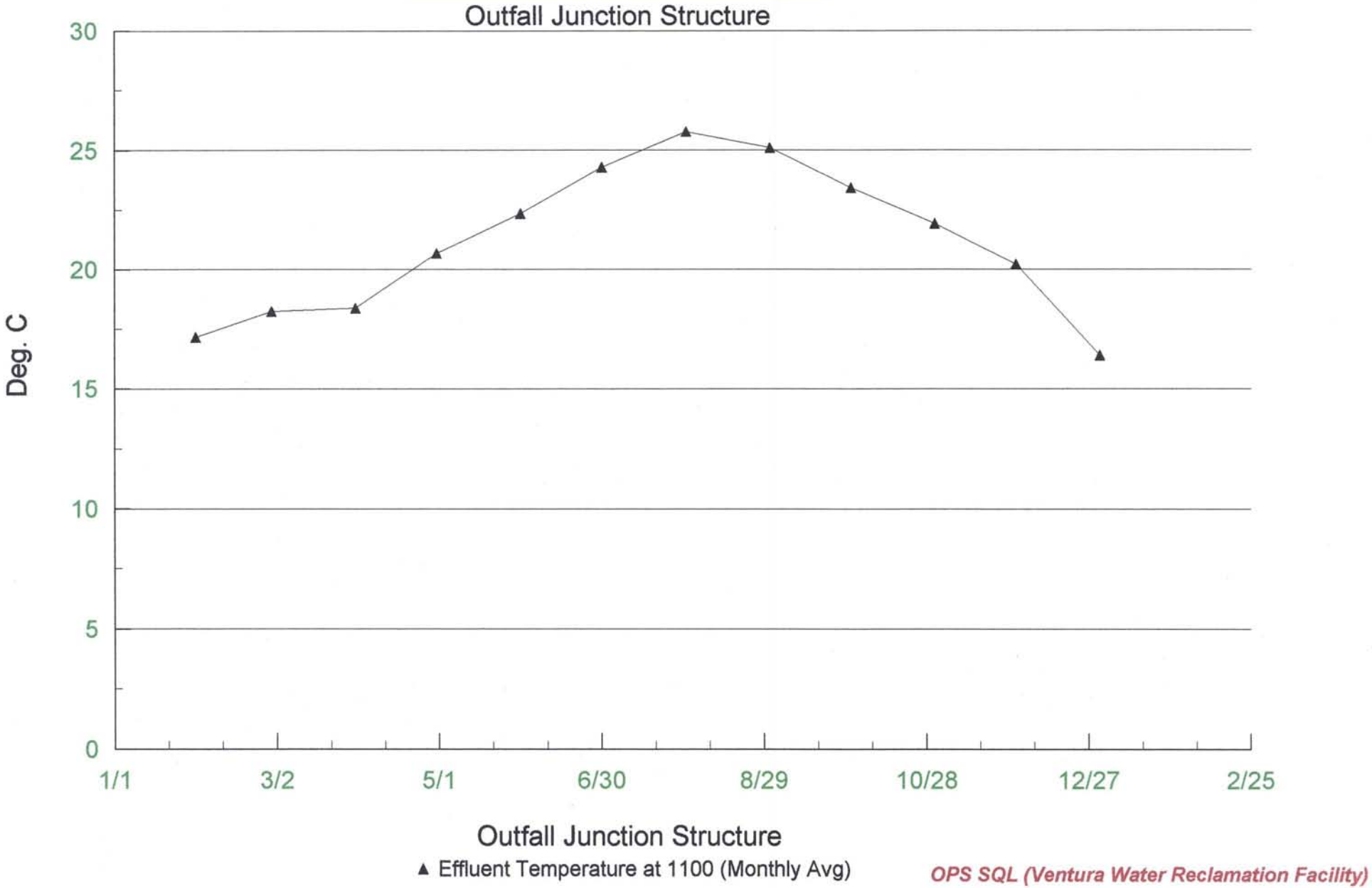

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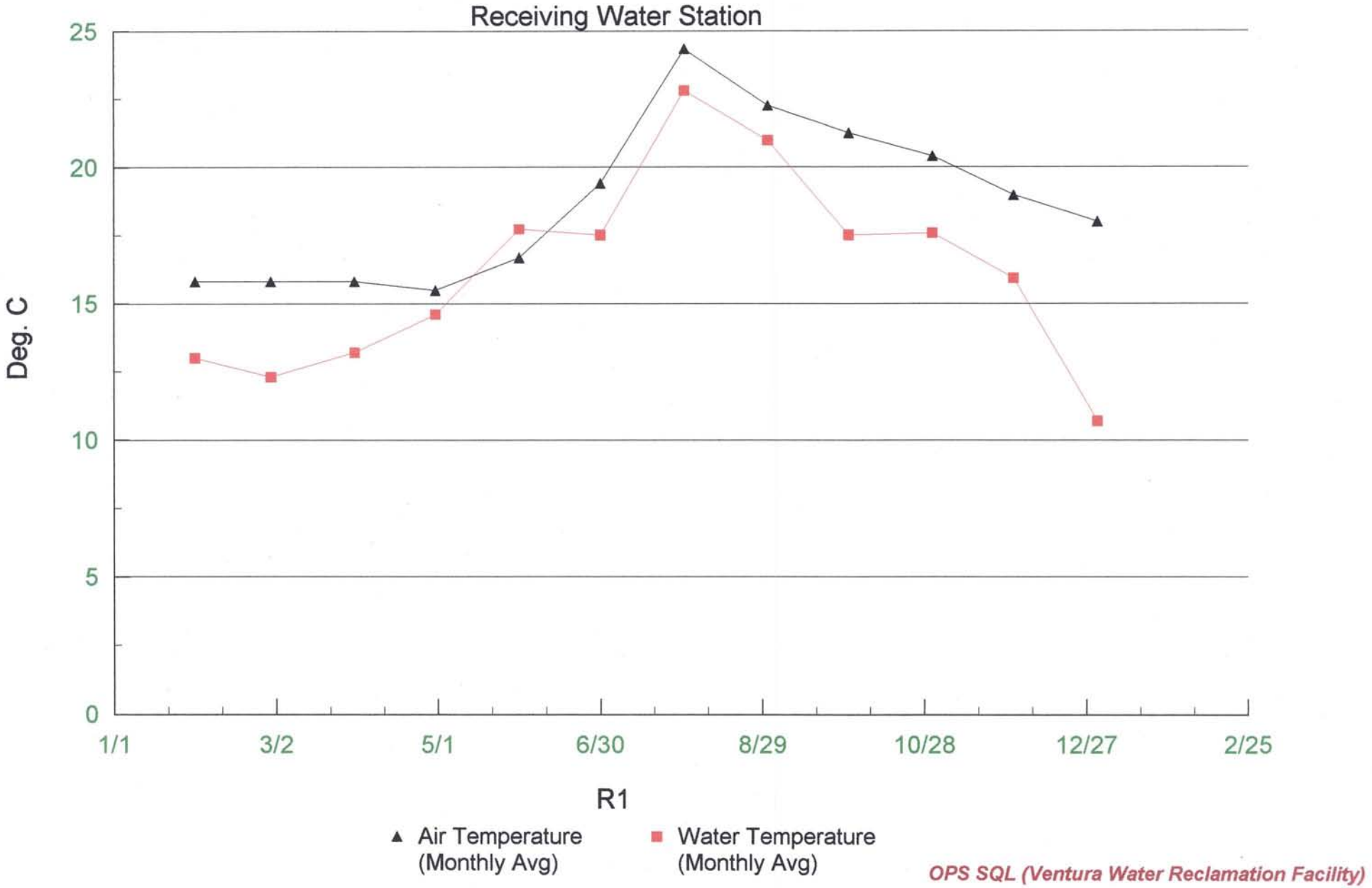

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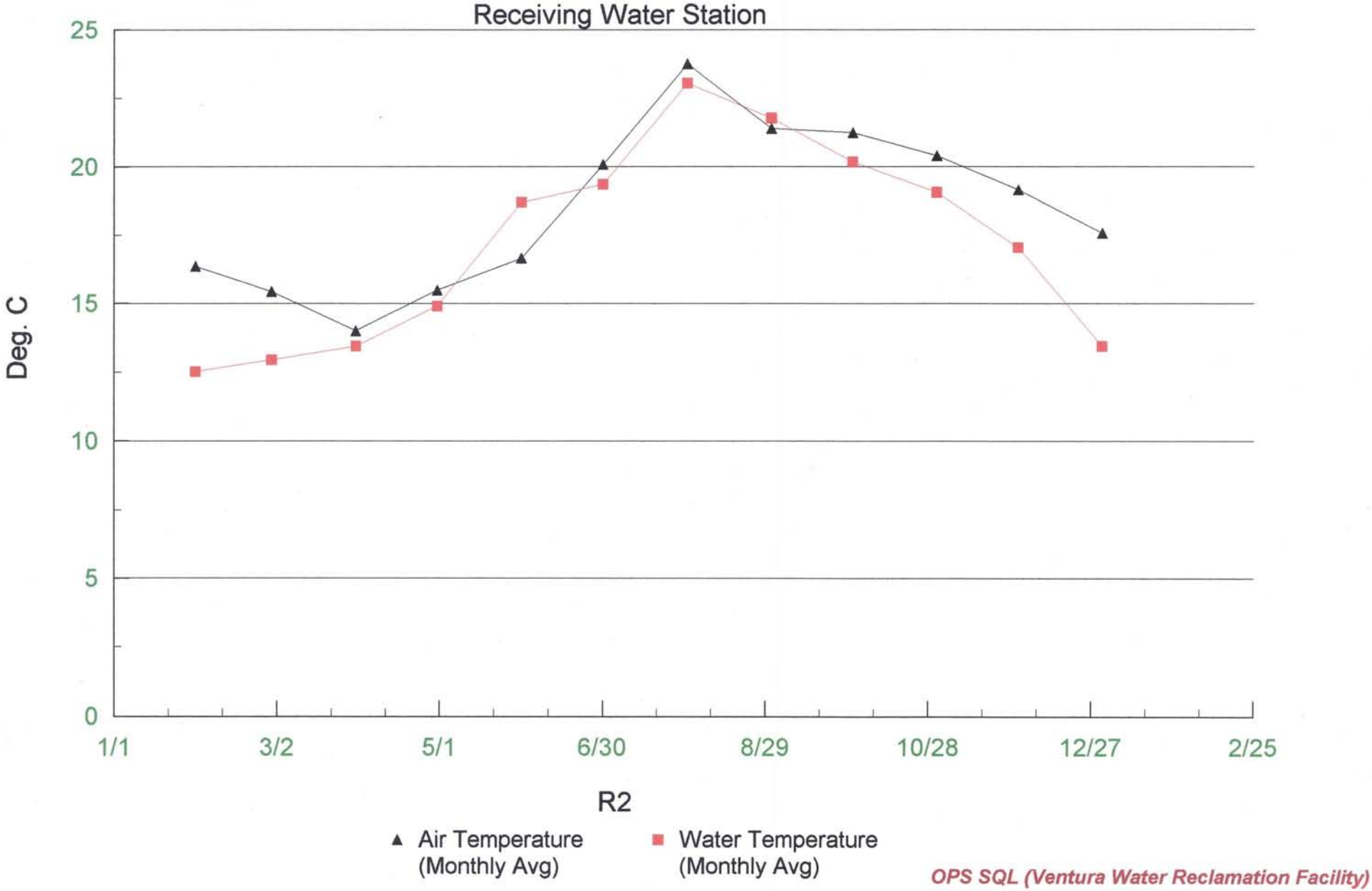

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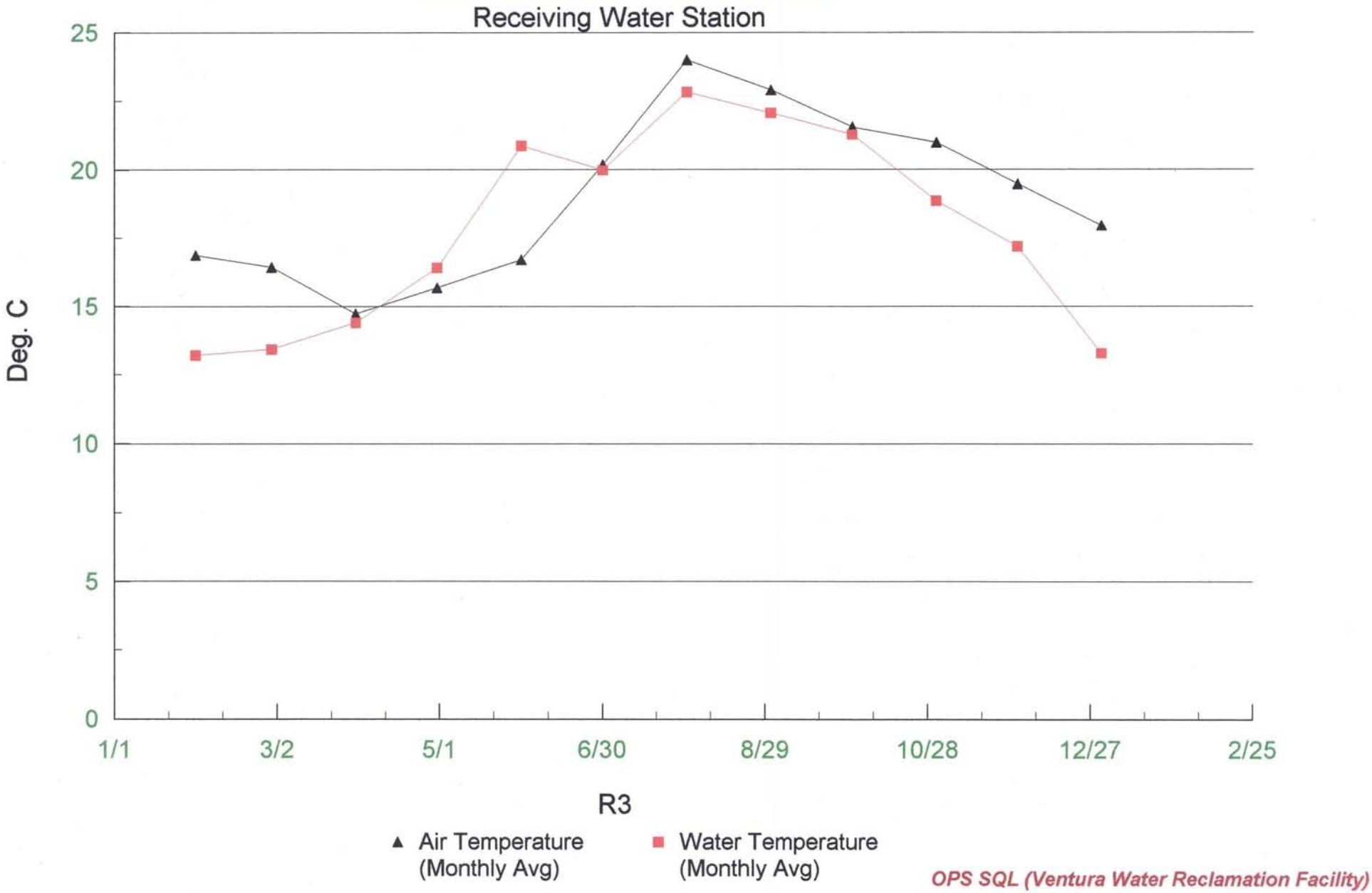

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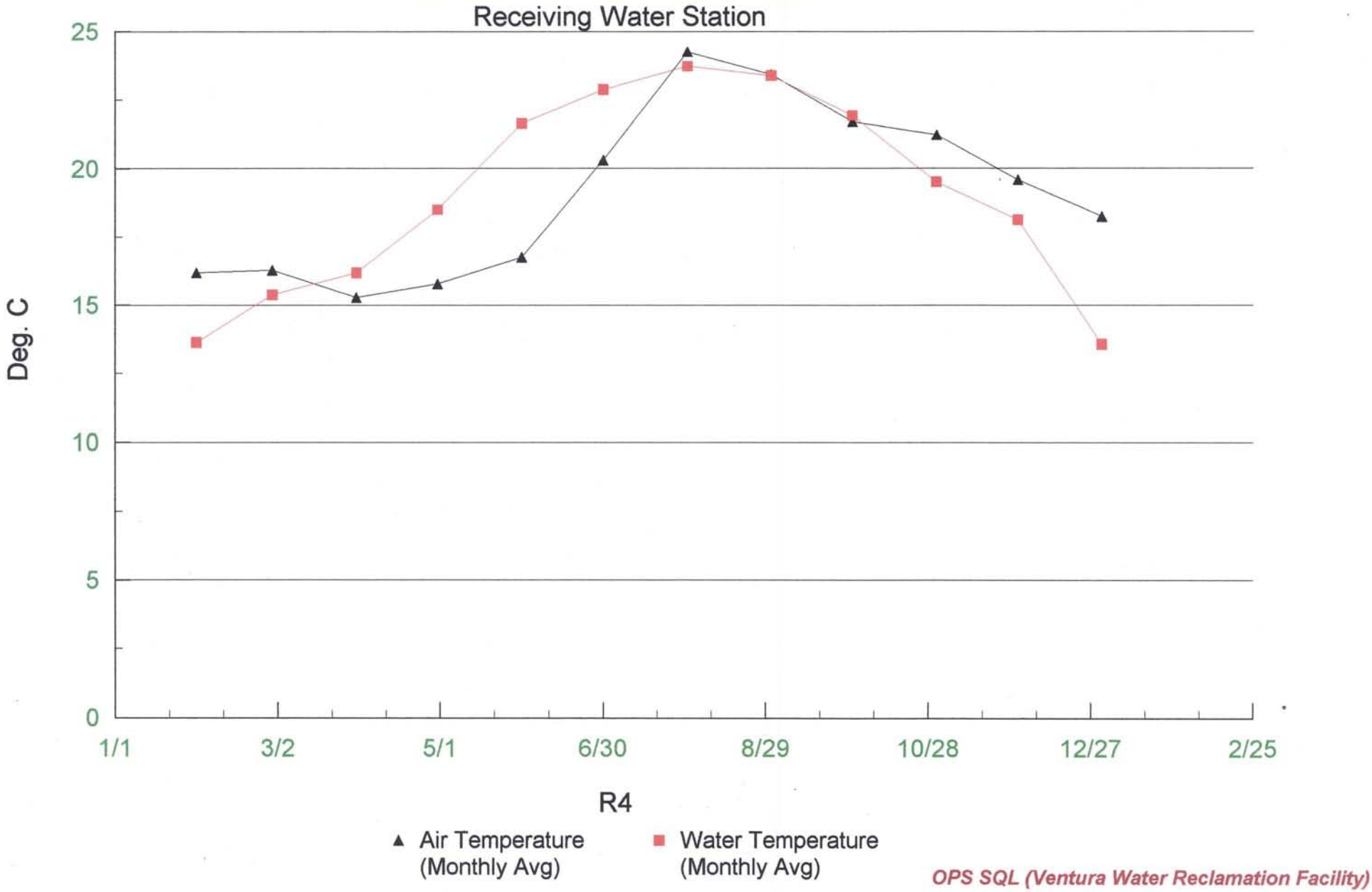

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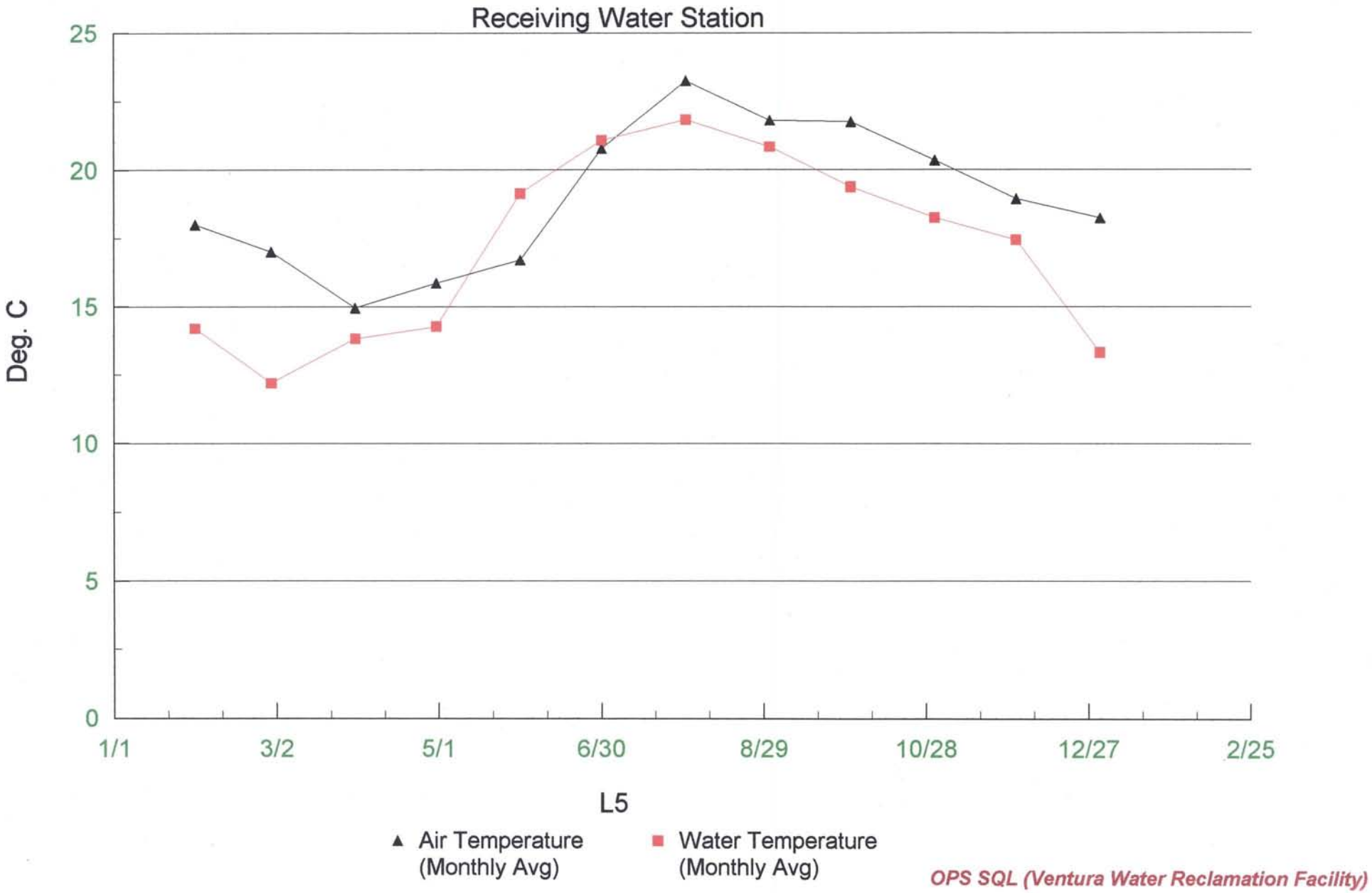

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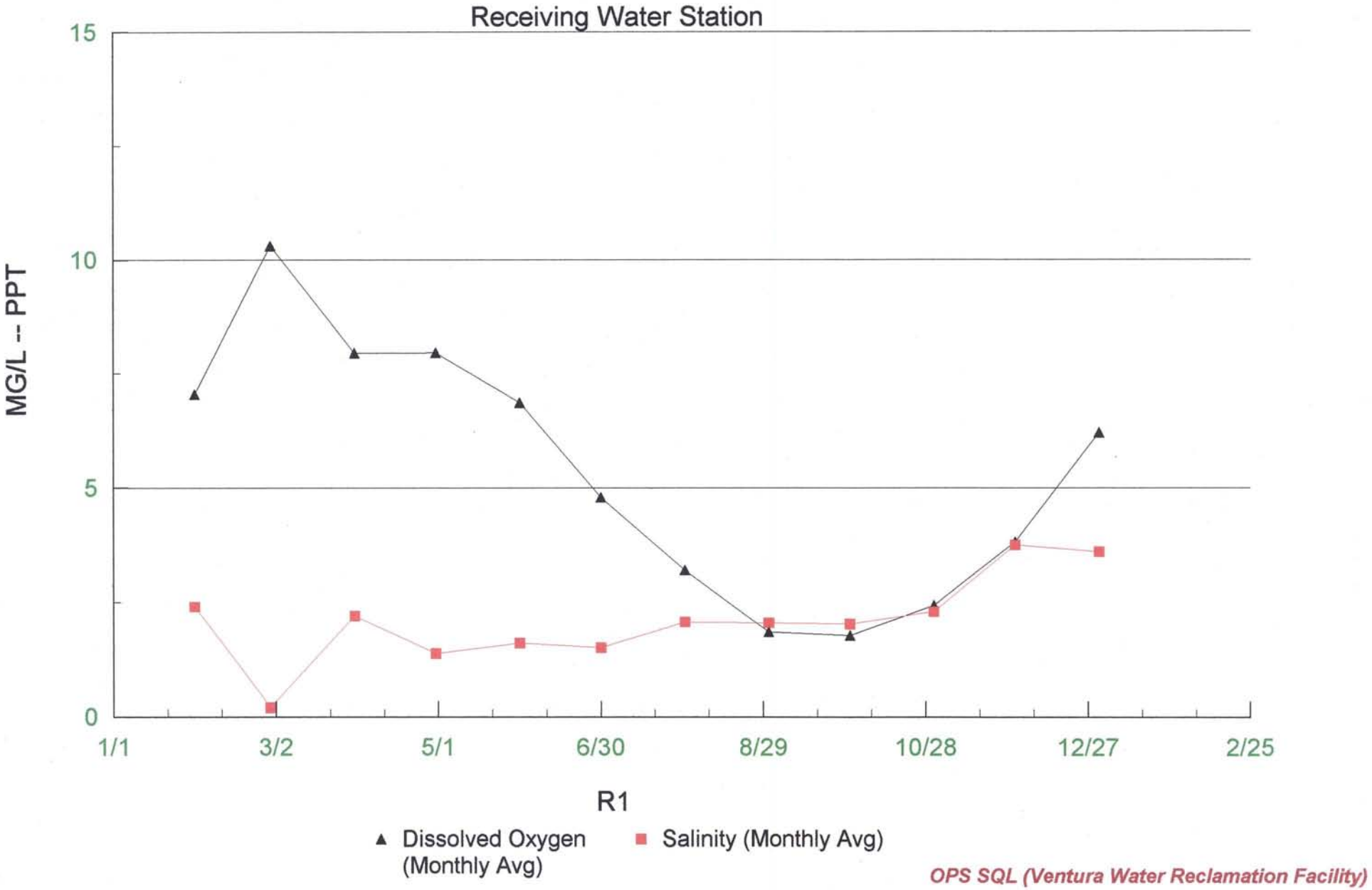

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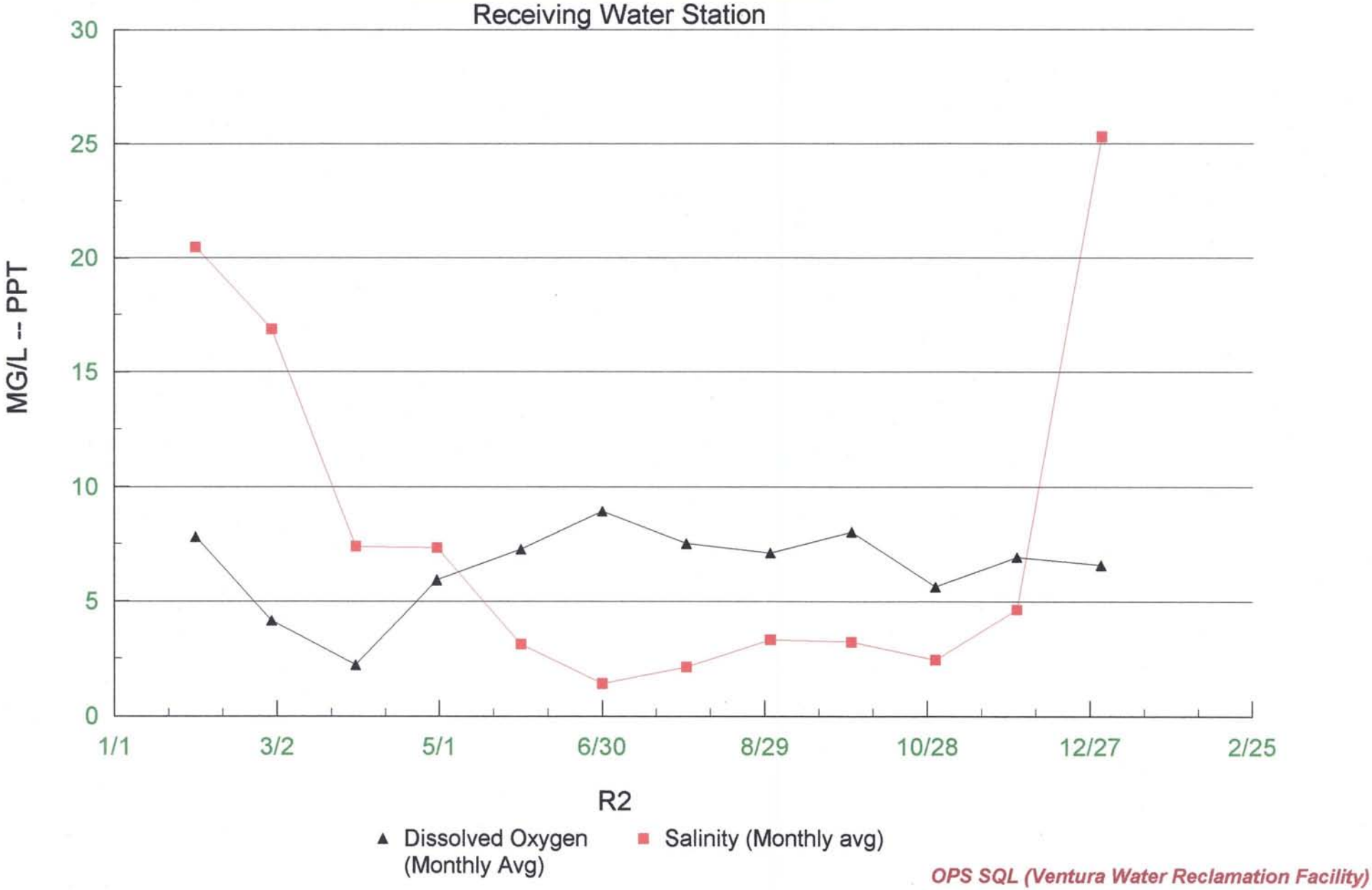

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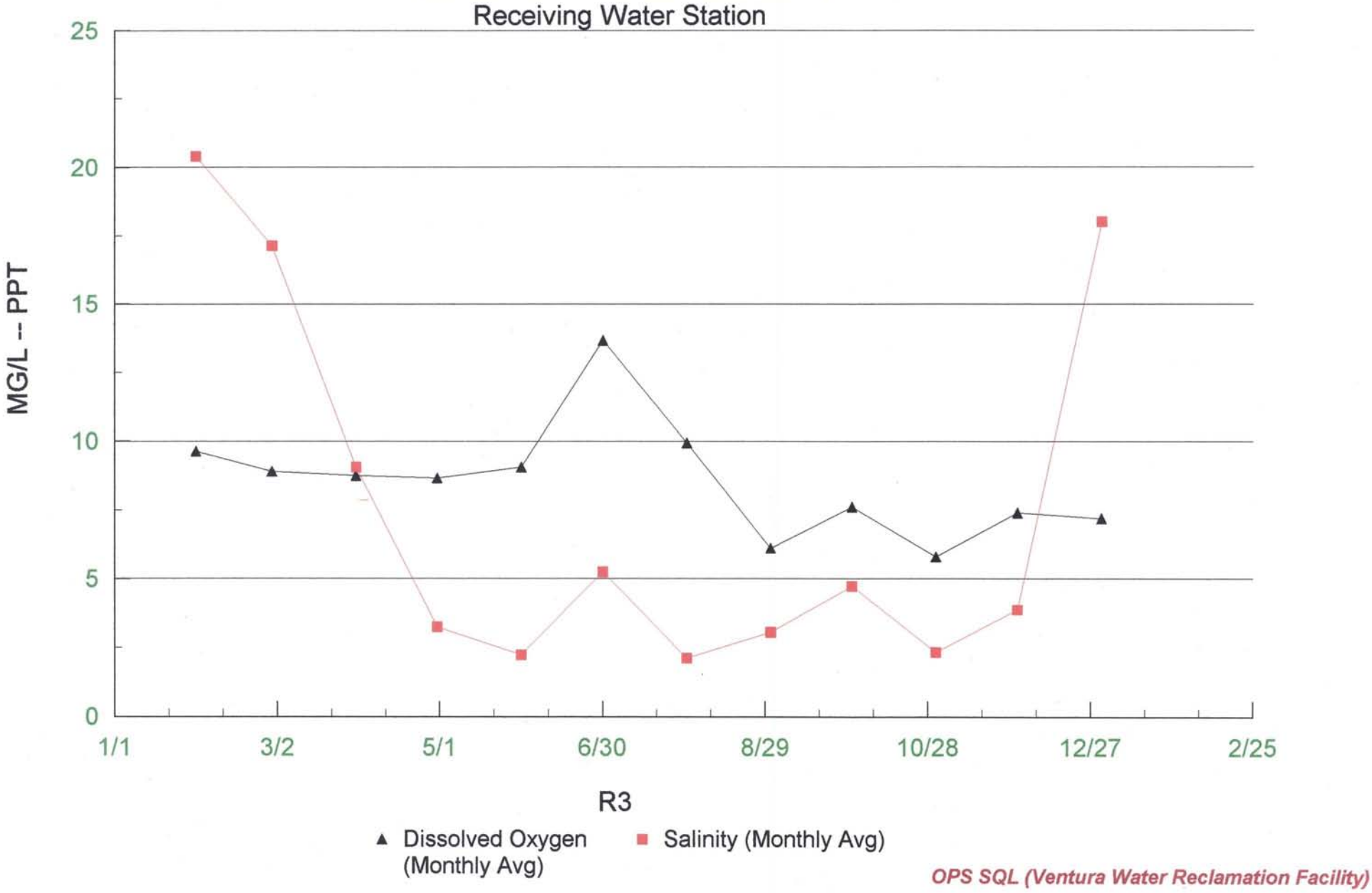

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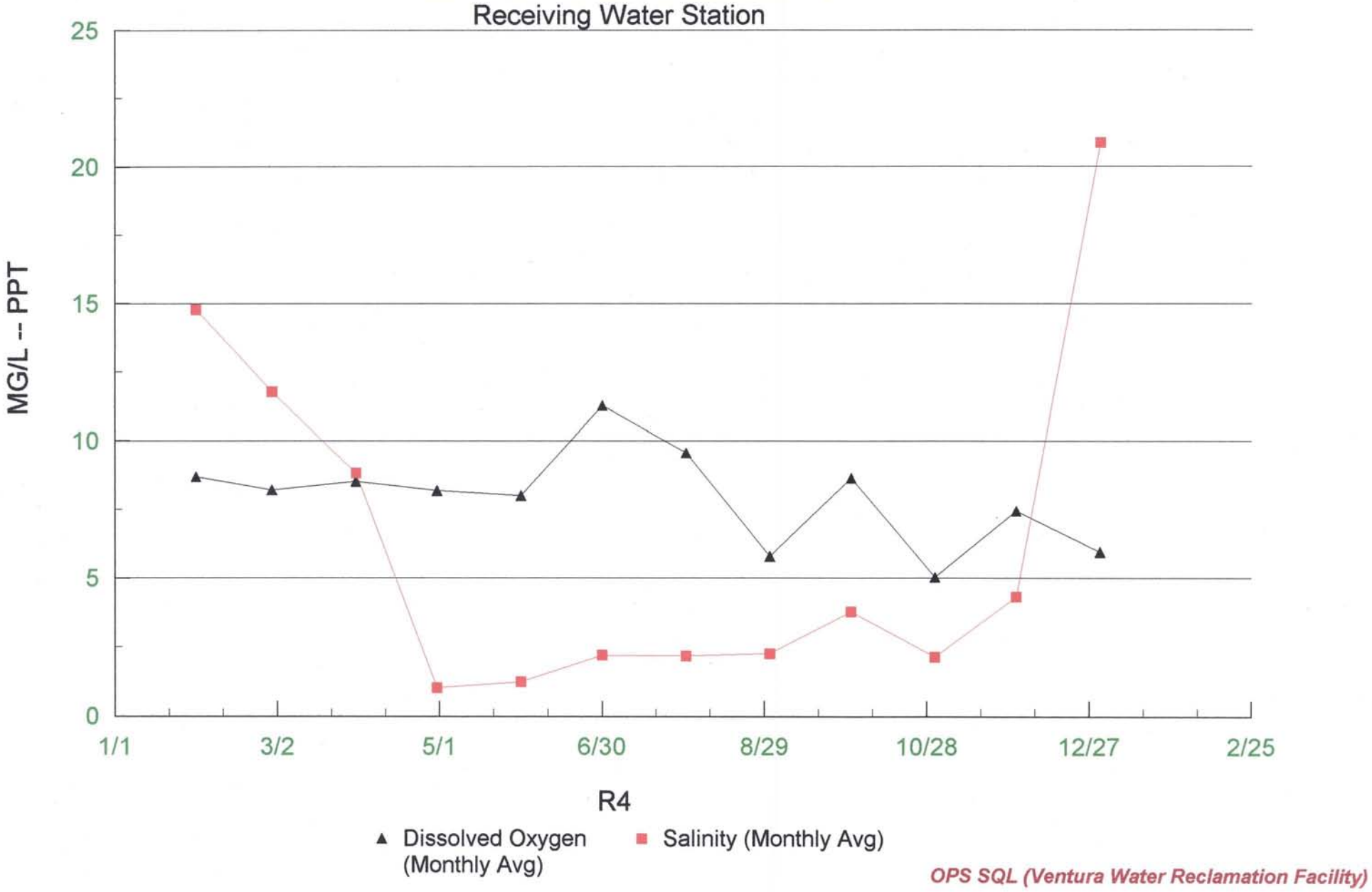

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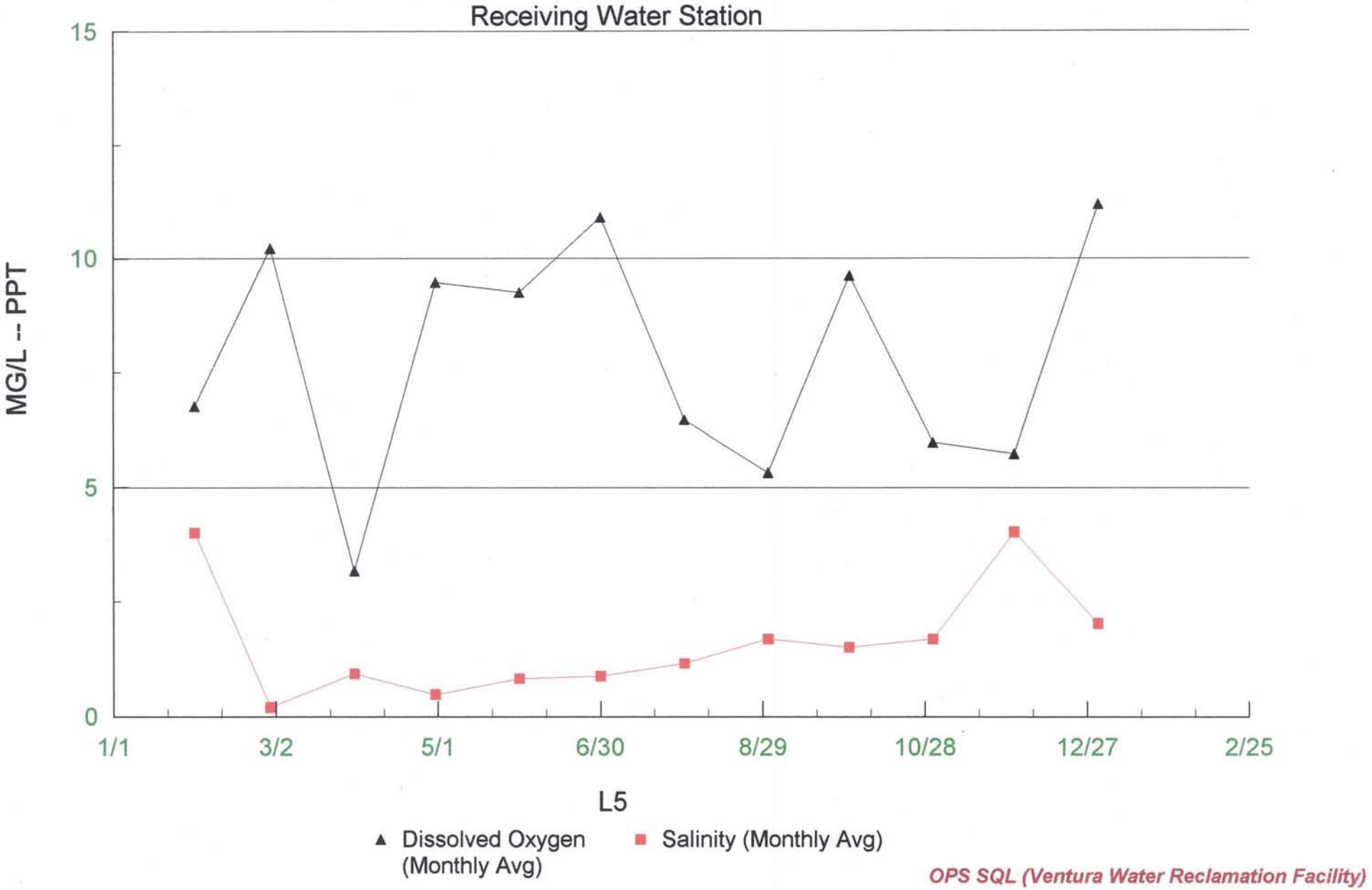

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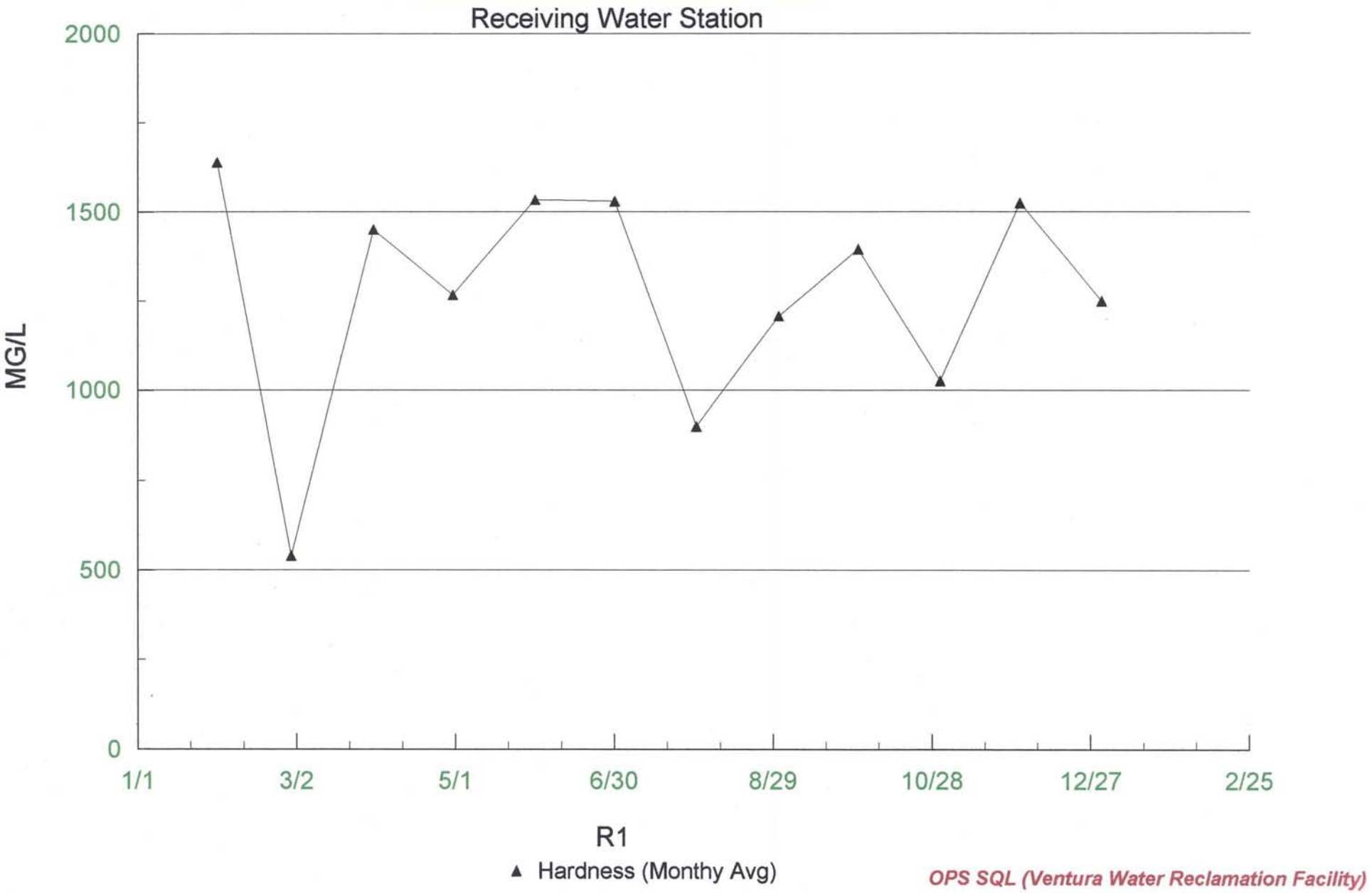

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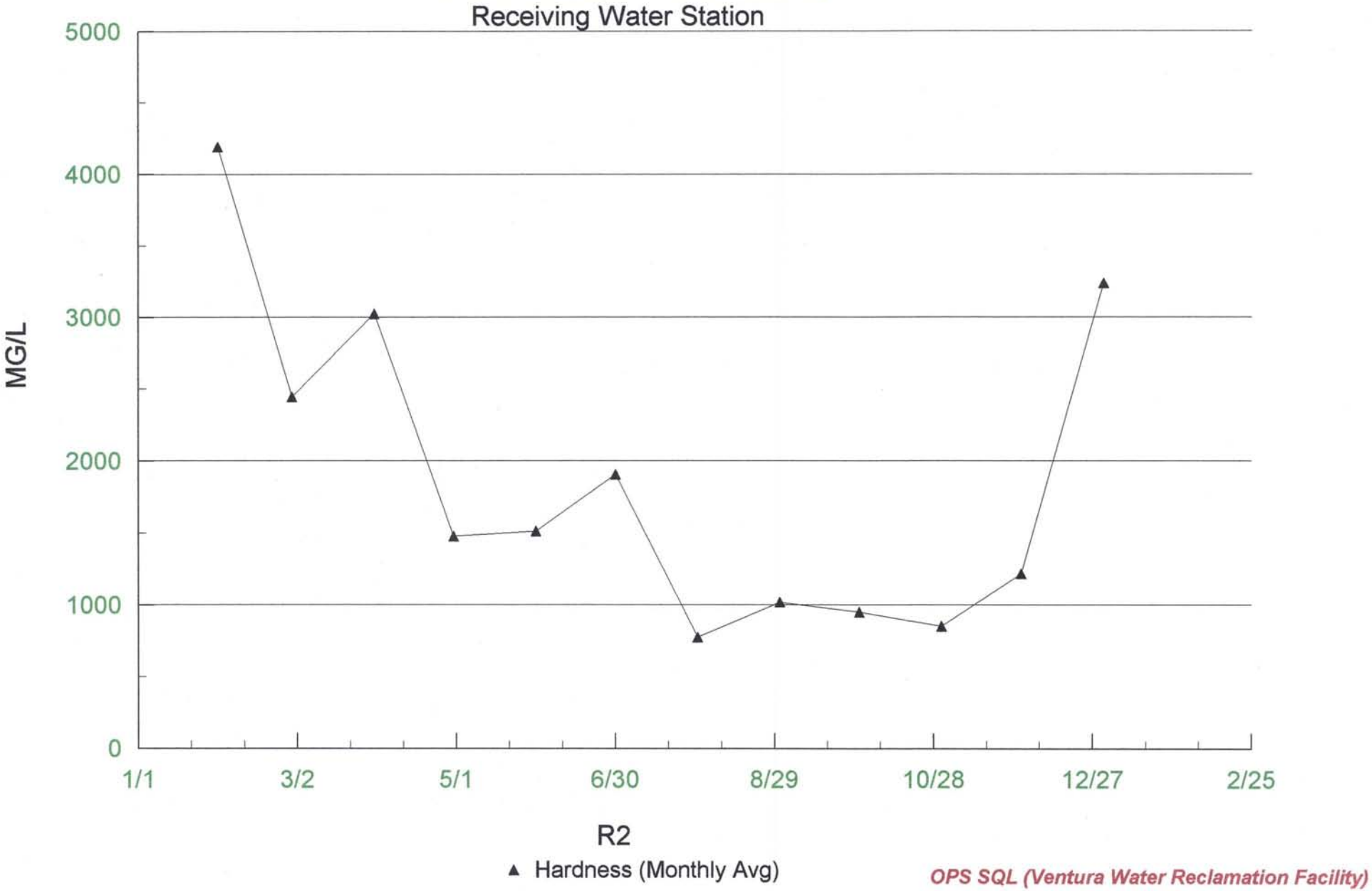

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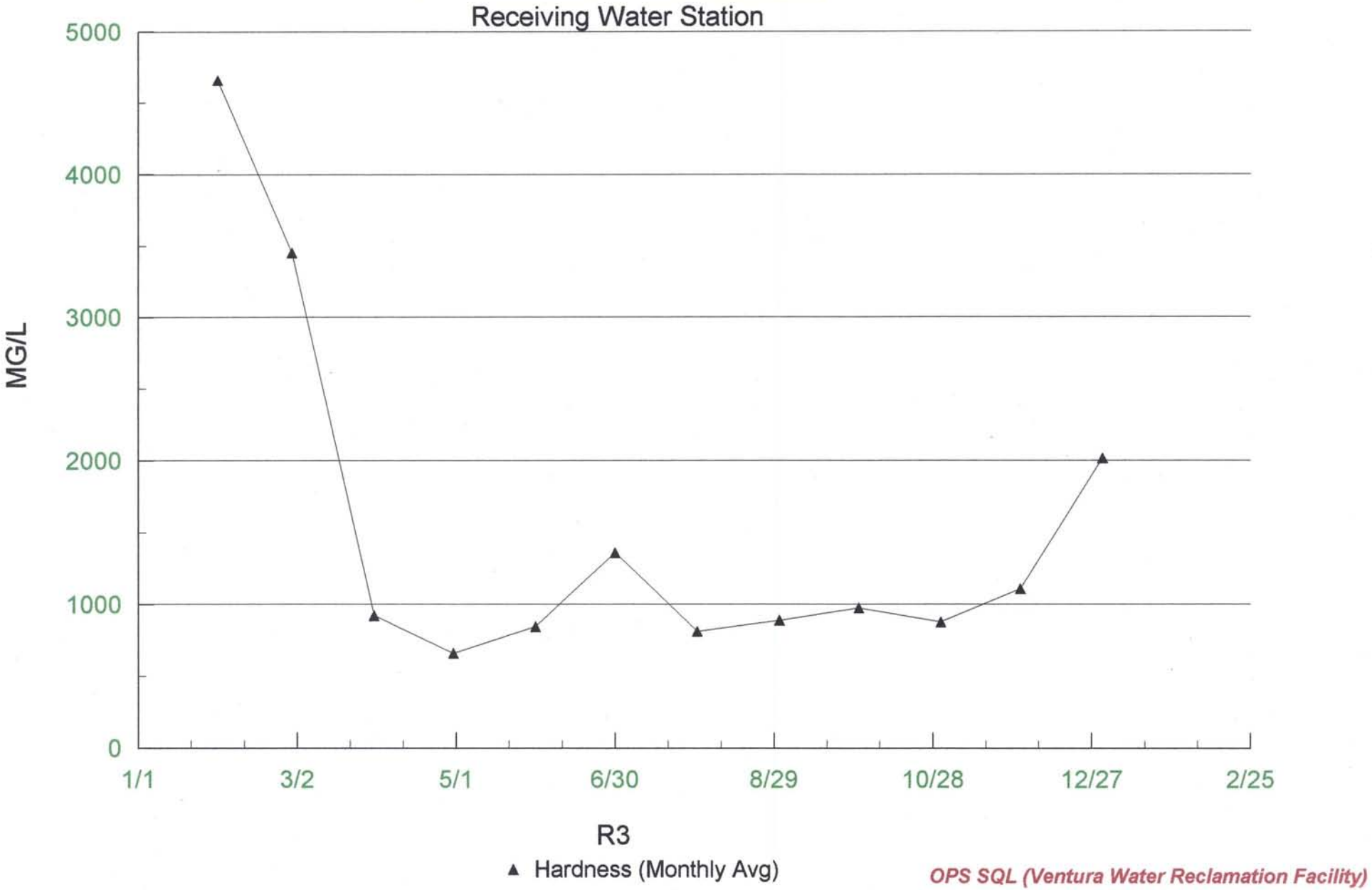

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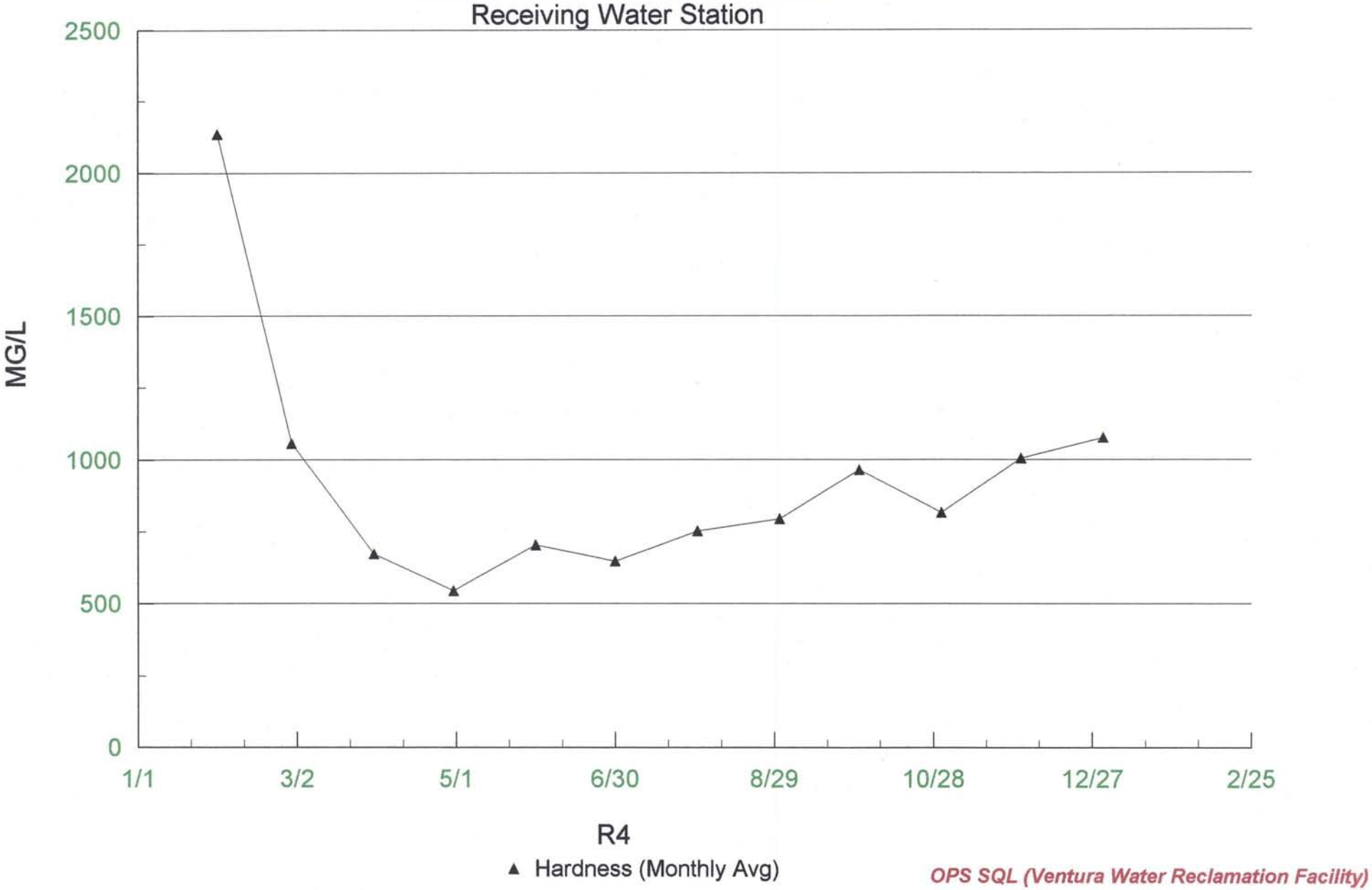

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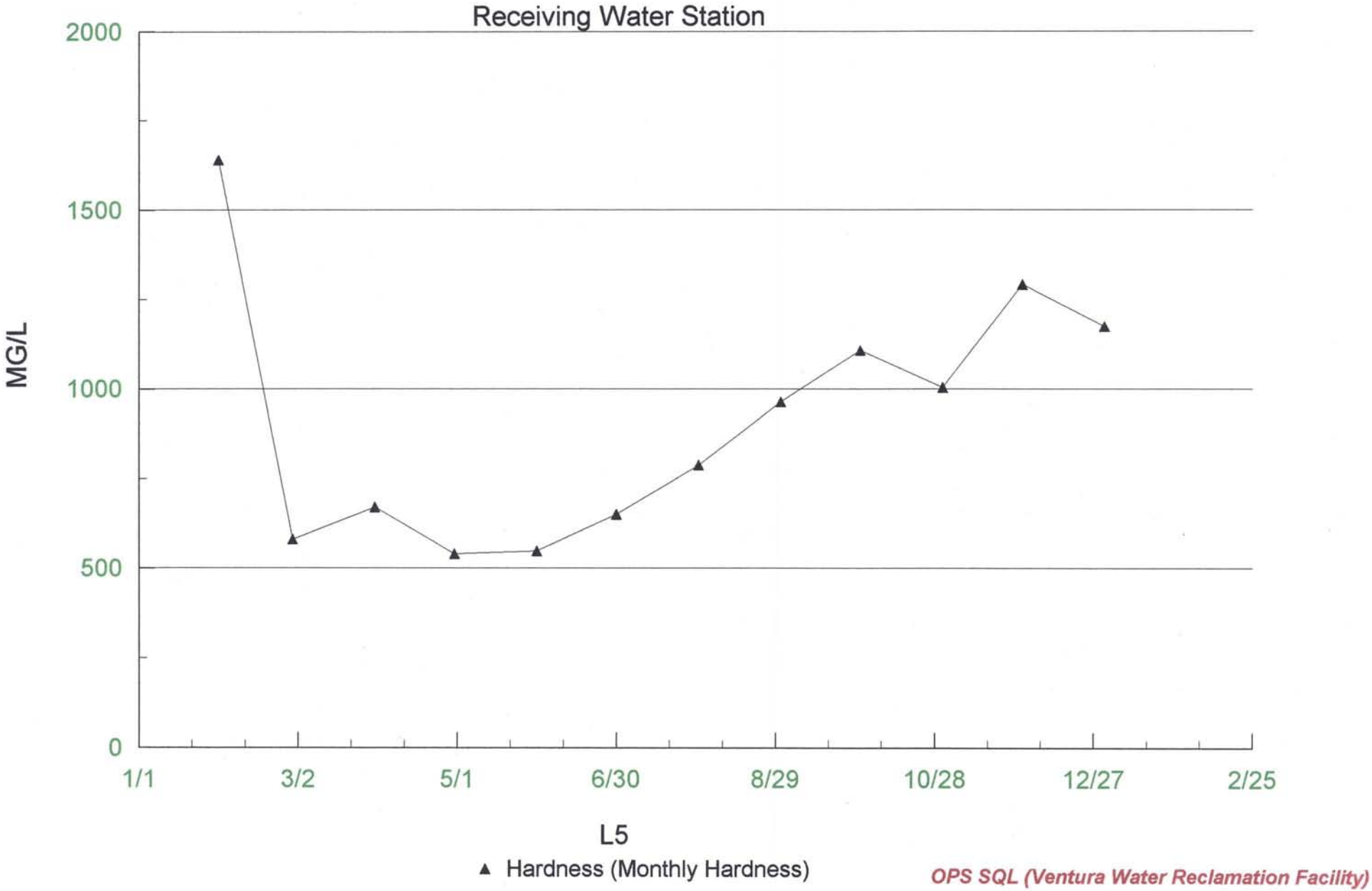

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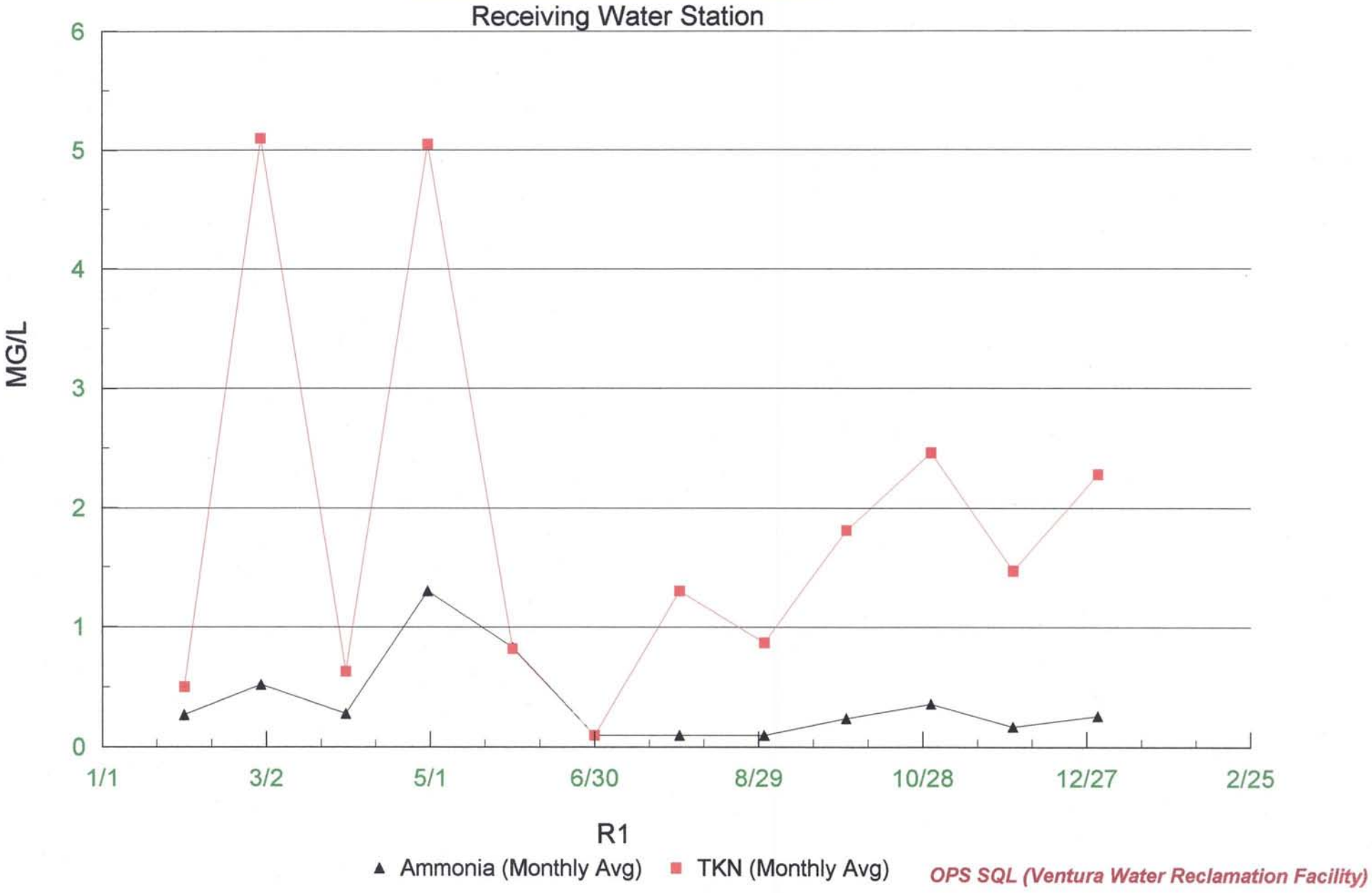
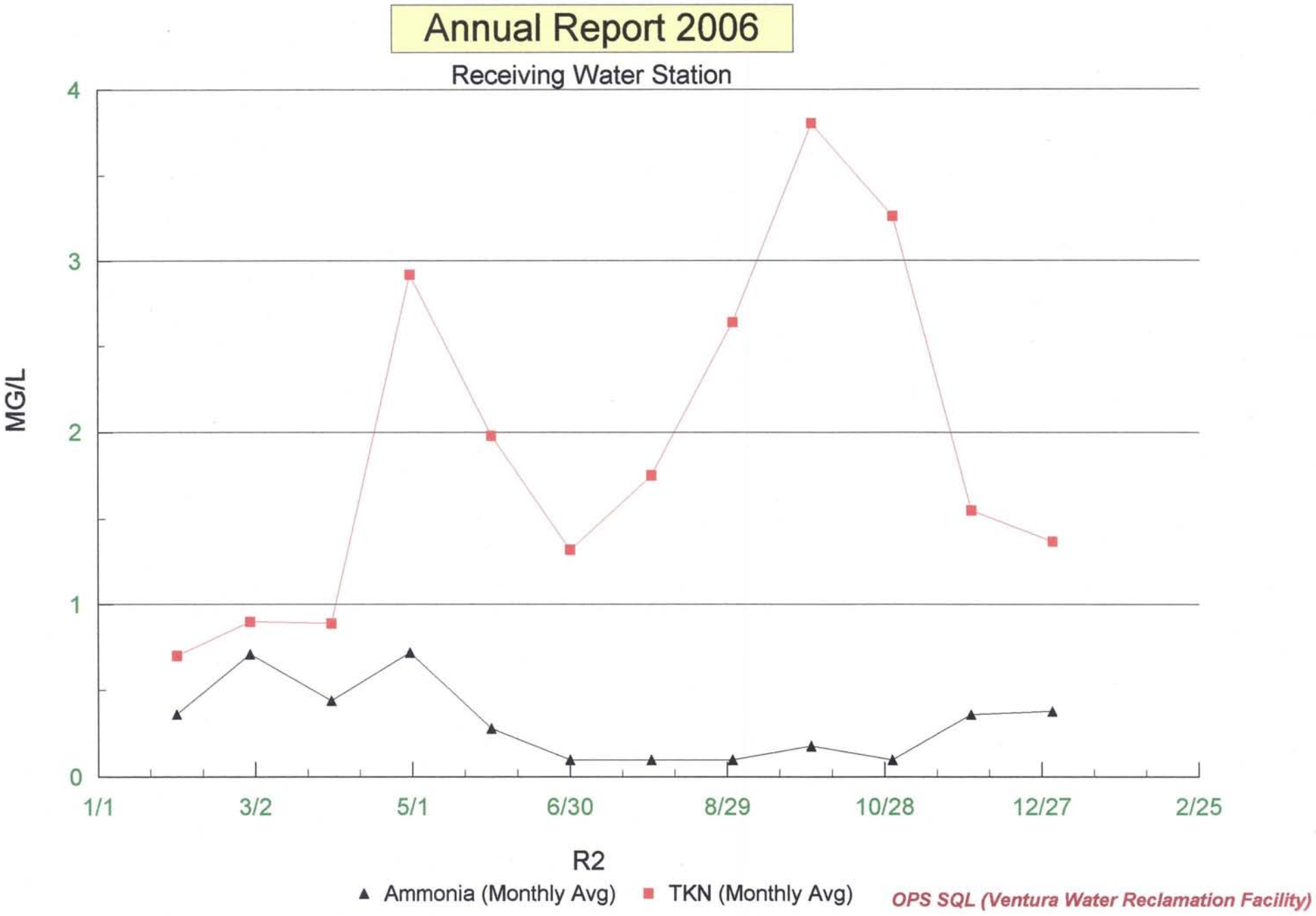
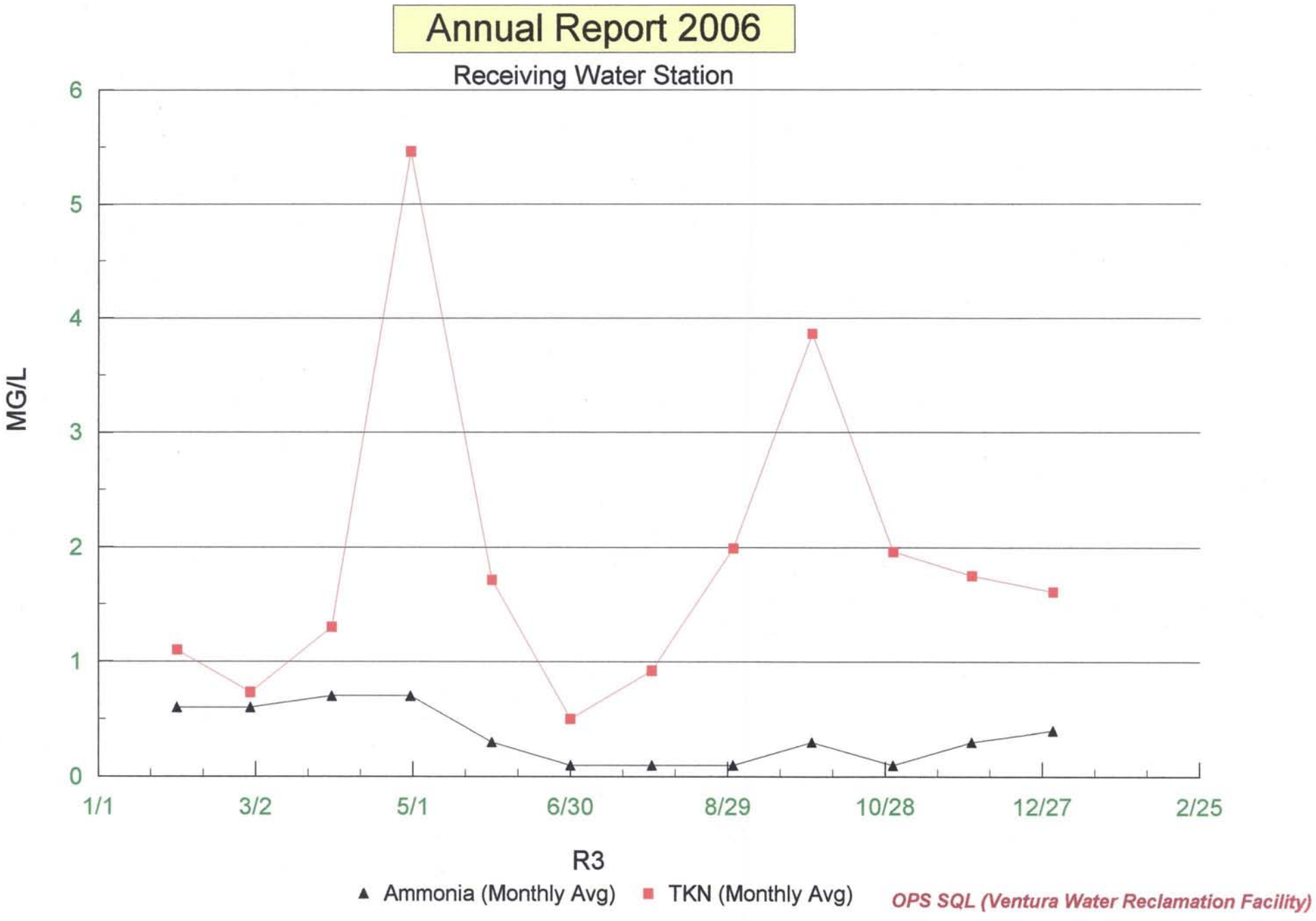
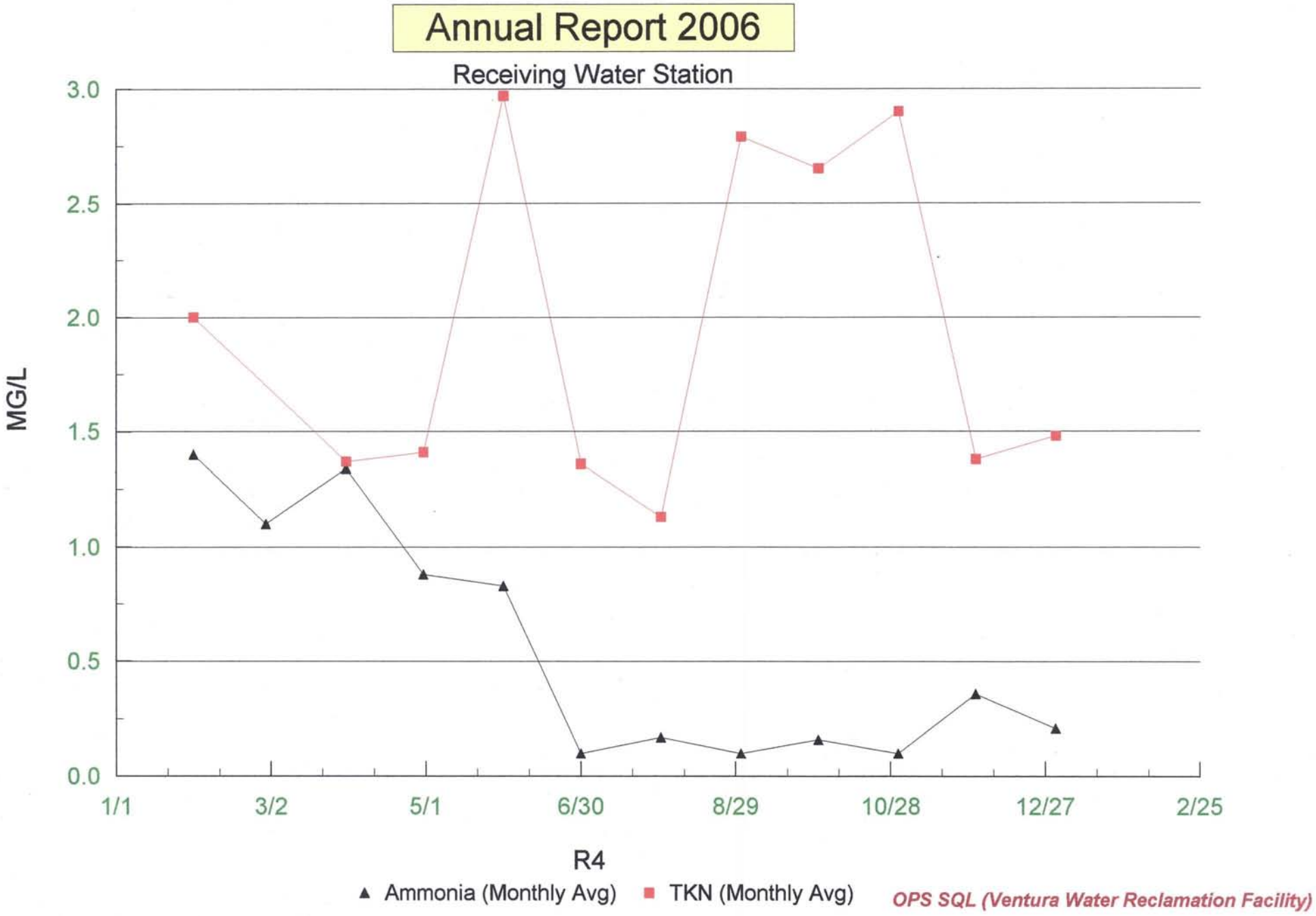
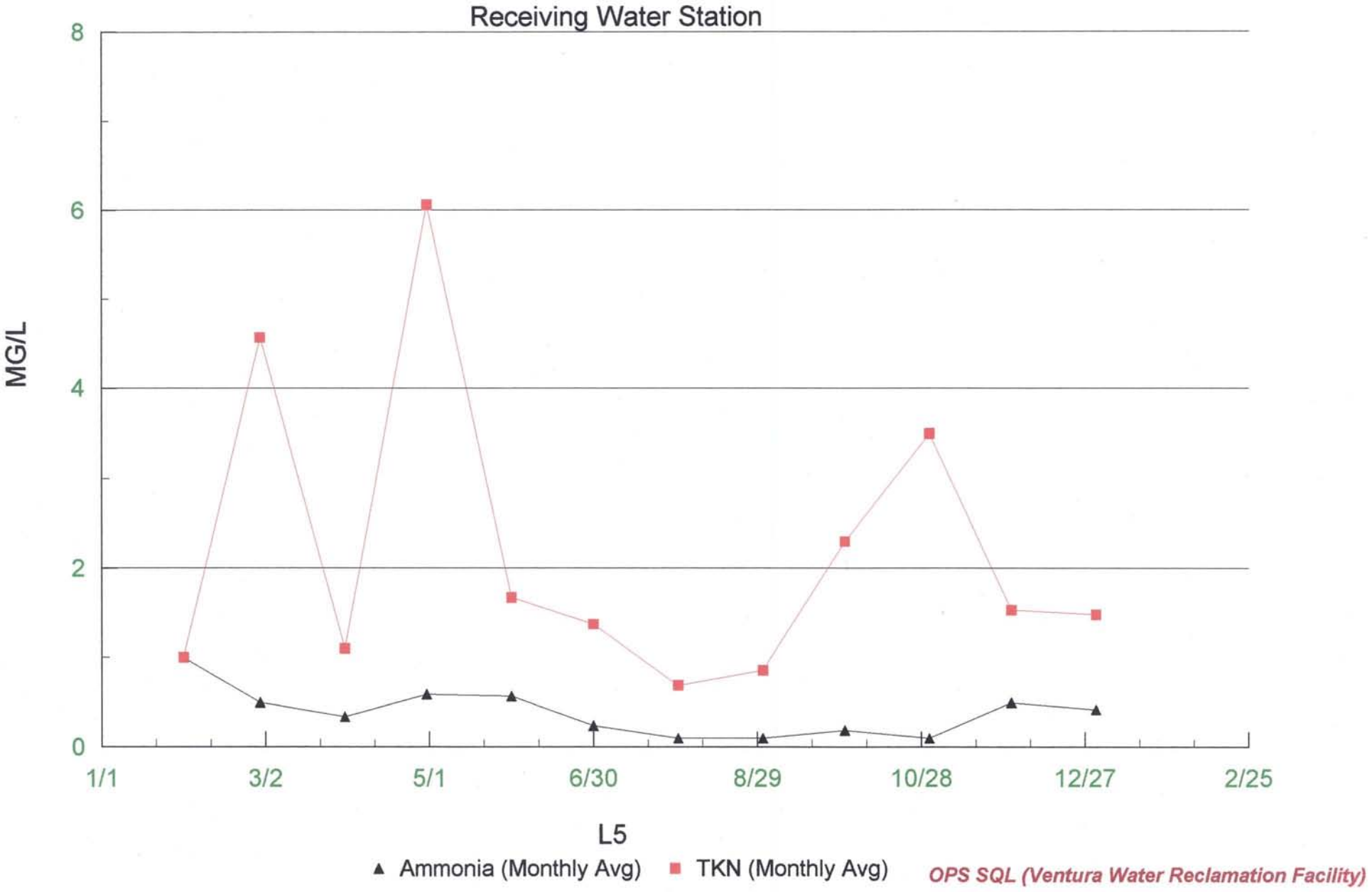



Annual Report 2006
Receiving Water Station
MG/L
4
3
2
1
0
1/1
3/2
5/1
6/30
8/29
10/28
12/27
2/25
R2
Ammonia (Monthly Avg)
TKN (Monthly Avg)
OPS SQL (Ventura Water Reclamation Facility)


Annual Report 2006
Receiving Water Station
MG/L
6
5
4
3
2
1
0
1/1
3/2
5/1
6/30
8/29
10/28
12/27
2/25
R3
Ammonia (Monthly Avg)
TKN (Monthly Avg)
OPS SQL (Ventura Water Reclamation Facility)


Annual Report 2006
Receiving Water Station
3.0
2.5
2.0
1.5
1.0
0.5
0.0
MG/L
1/1
3/2
5/1
6/30
8/29
10/28
12/27
2/25
R4
Ammonia (Monthly Avg)
TKN (Monthly Avg)
OPS SQL (Ventura Water Reclamation Facility)

Annual Report 2006



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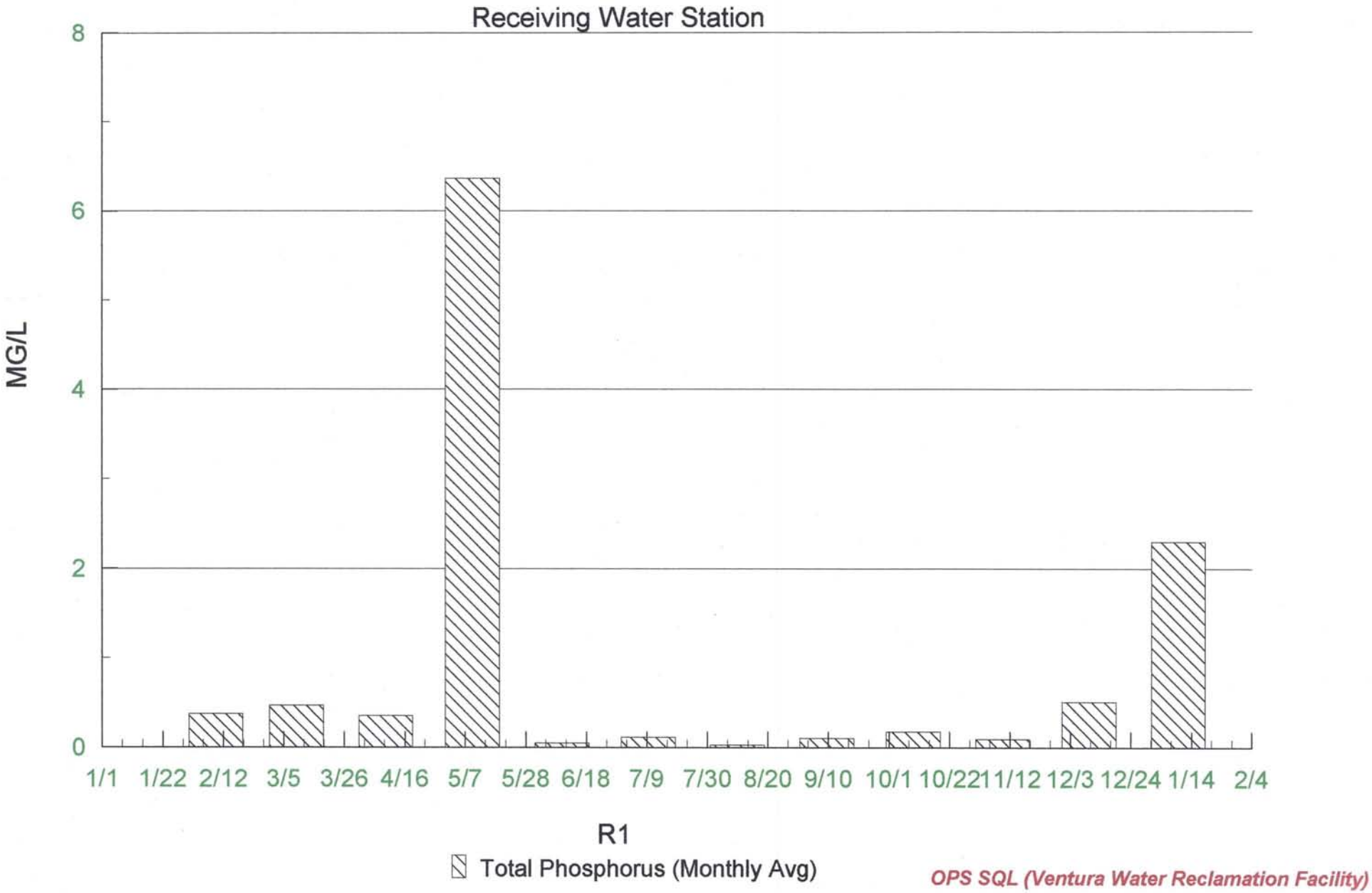
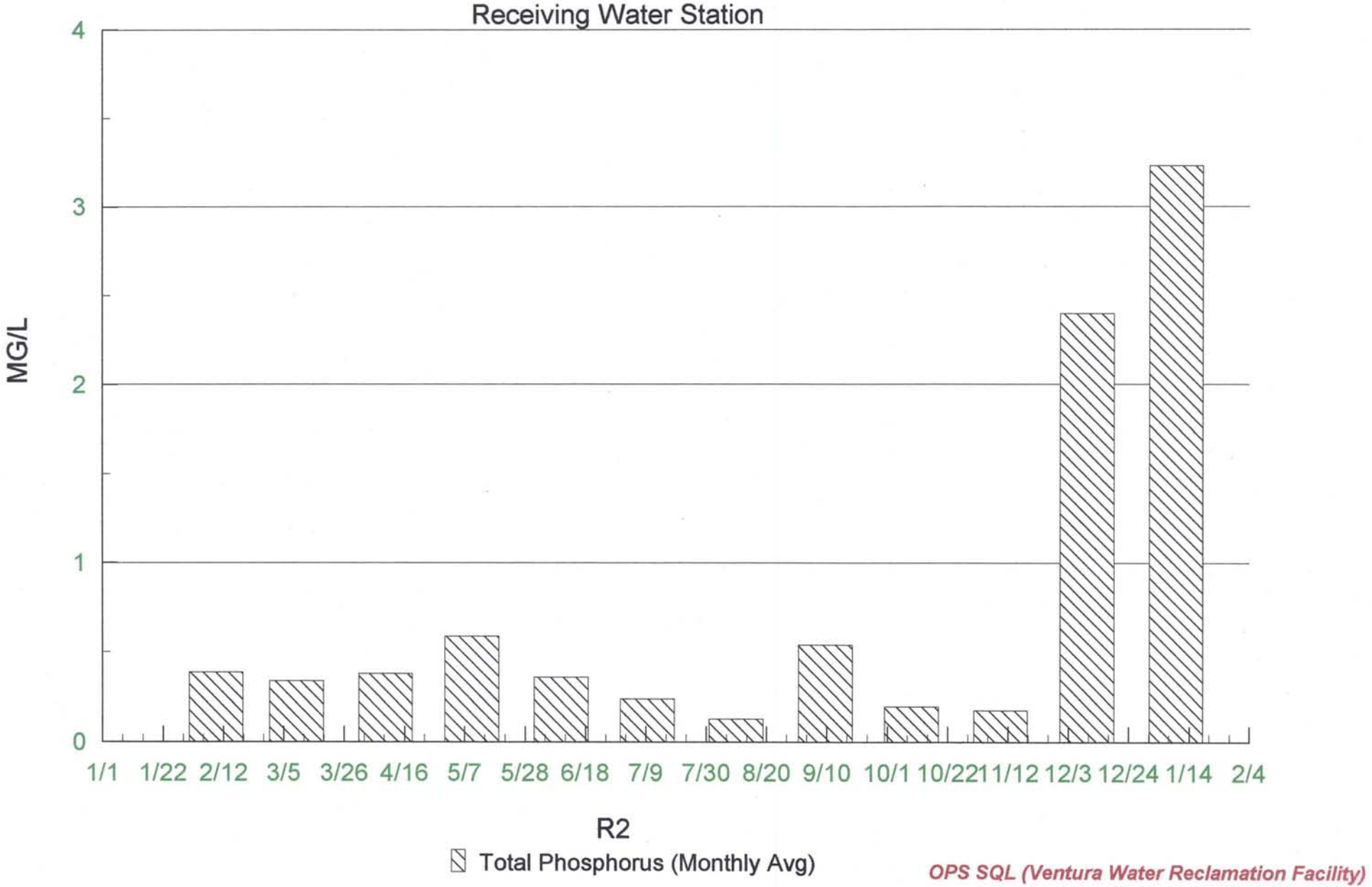


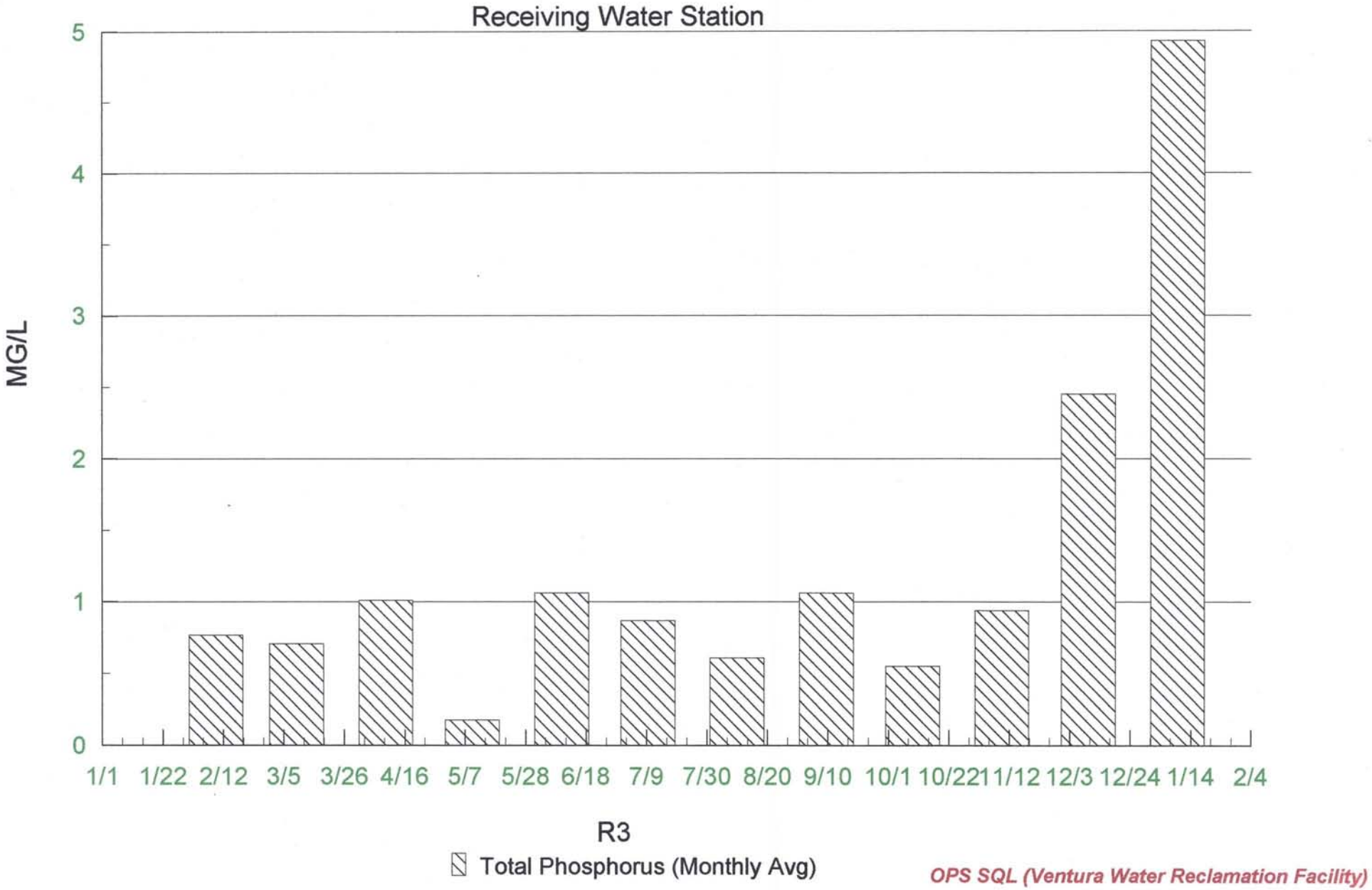
OPS SQL (Ventura Water Reclamation Facility)

Annual Report 2006



OPS SQL (Ventura Water Reclamation Facility)

Annual Report 2006



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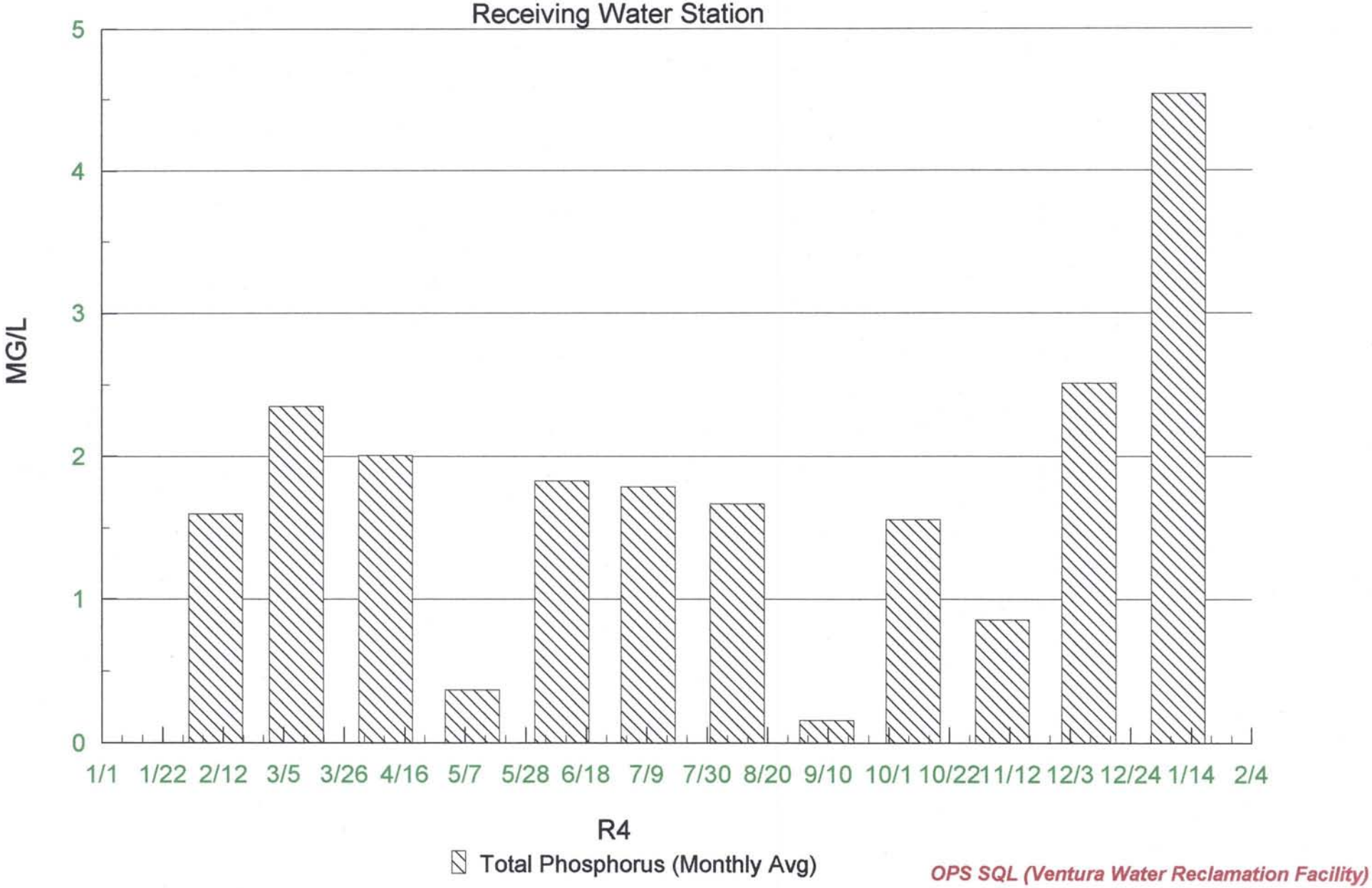

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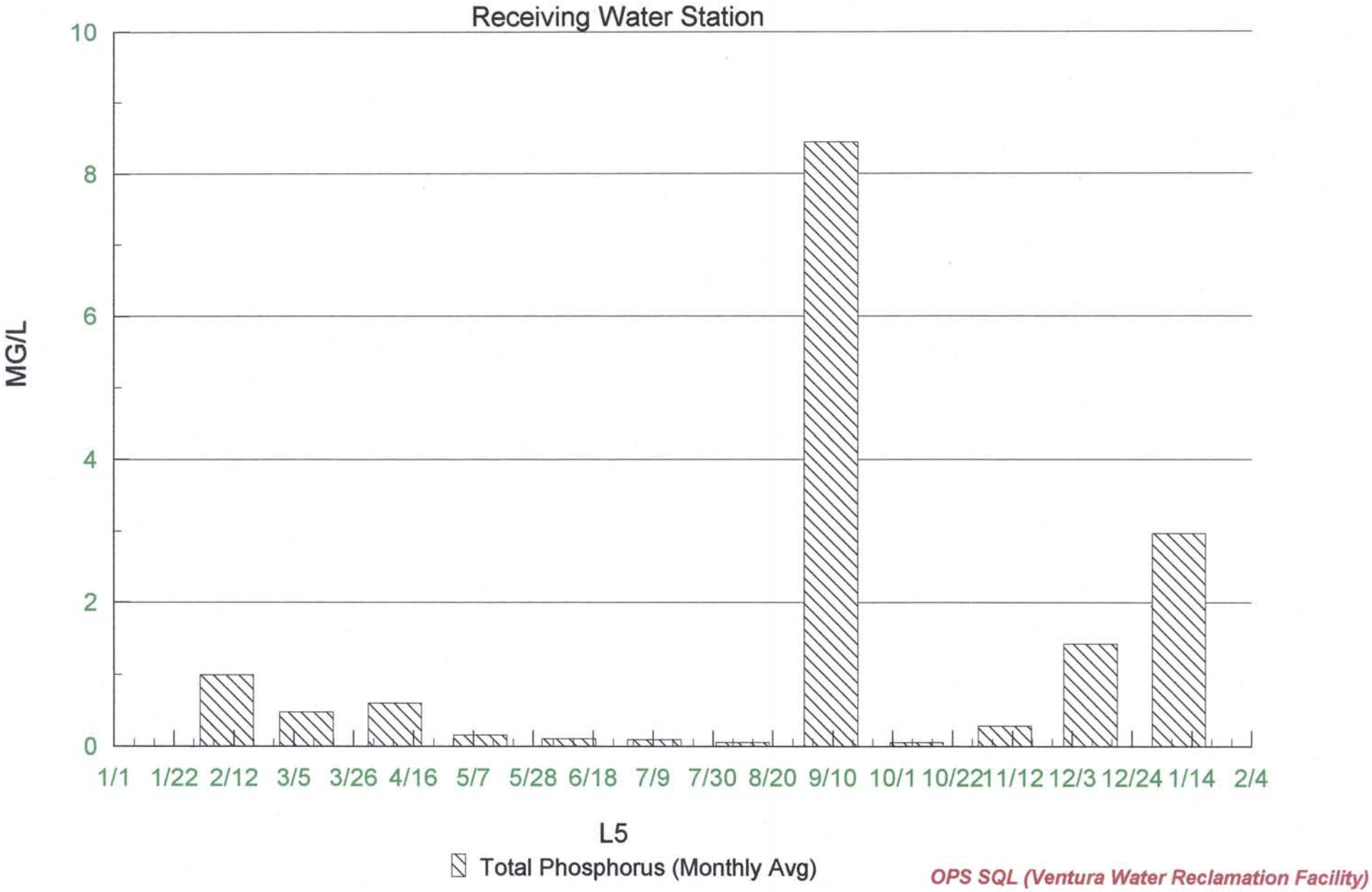

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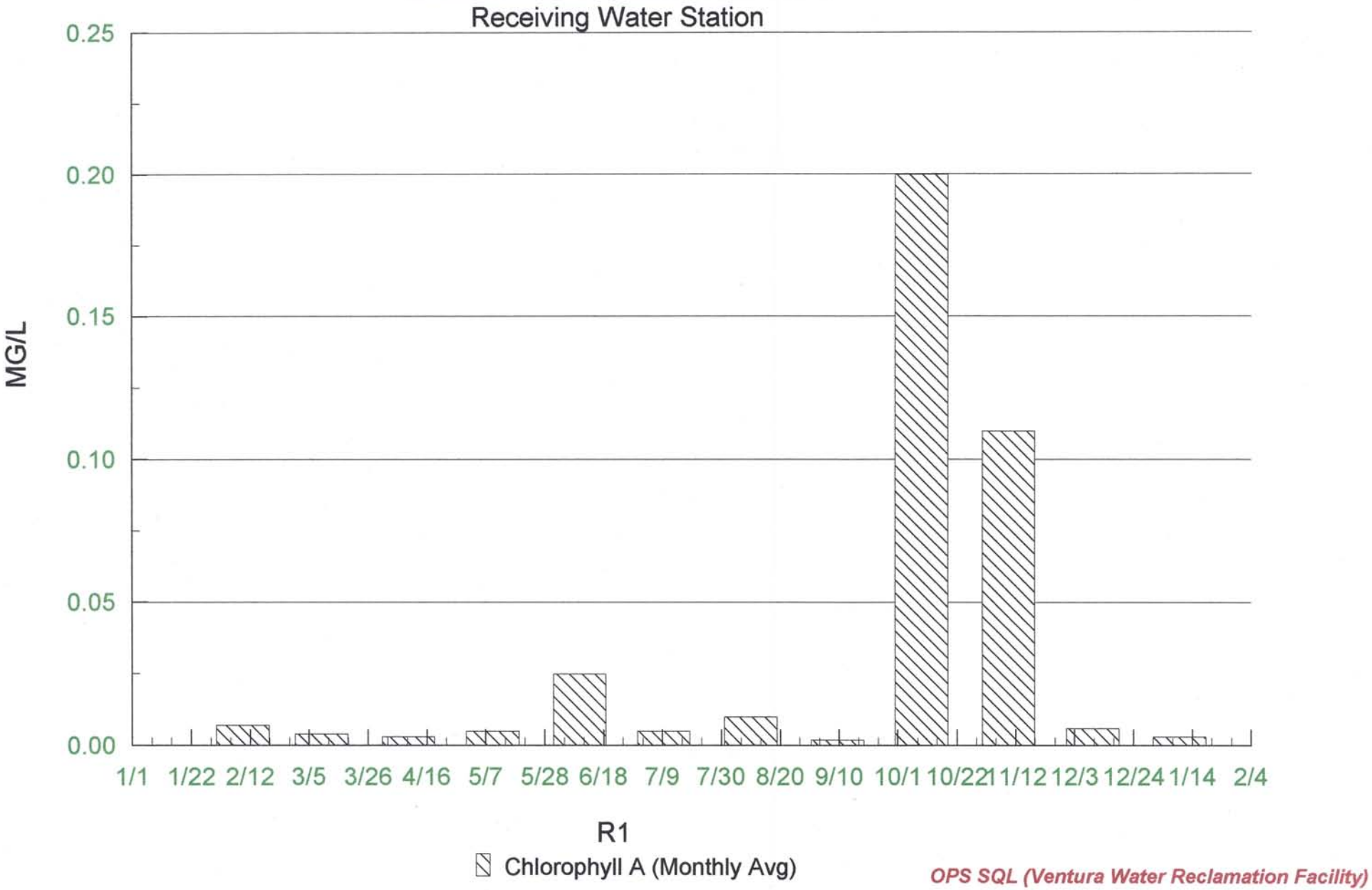

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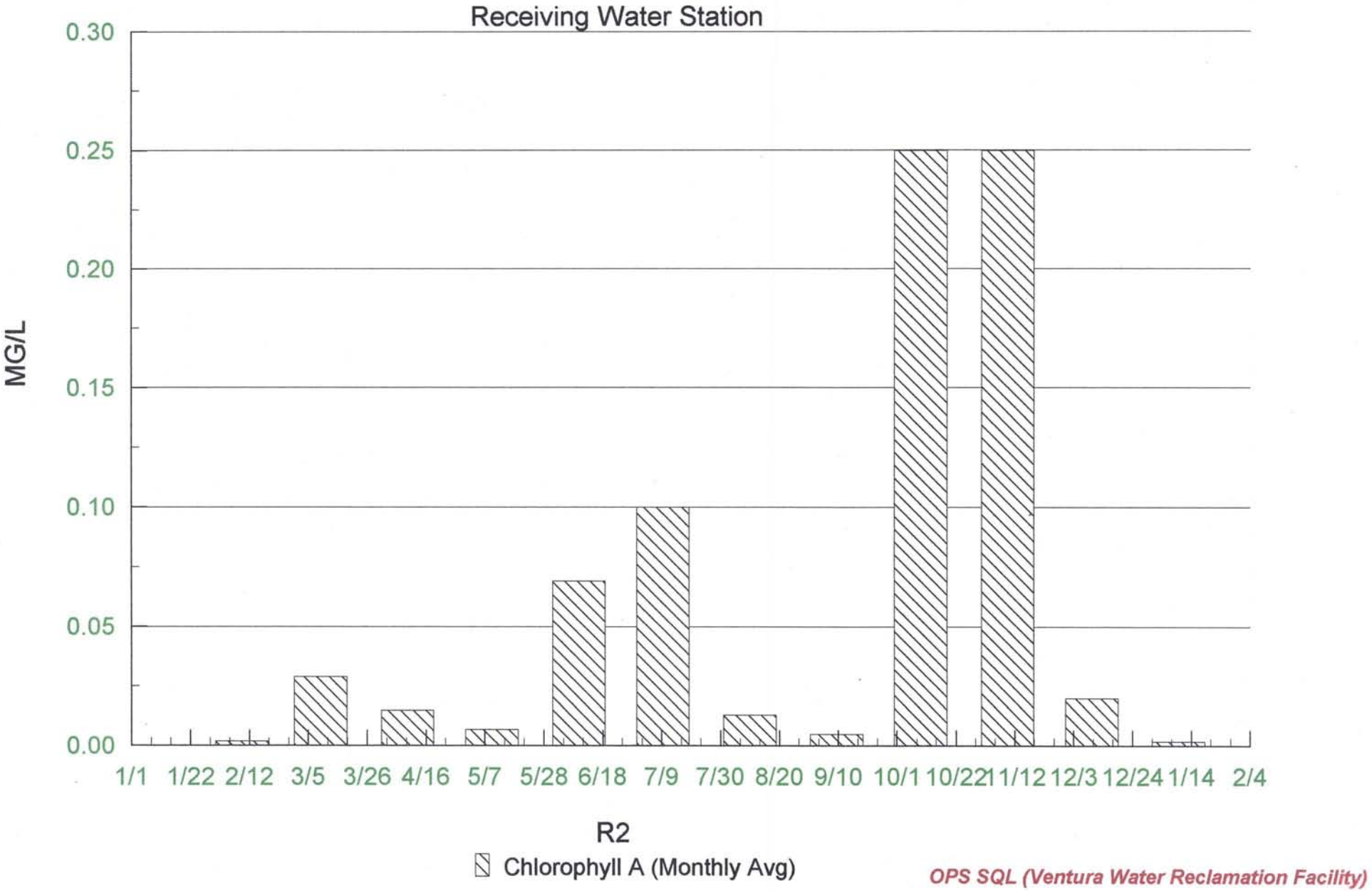

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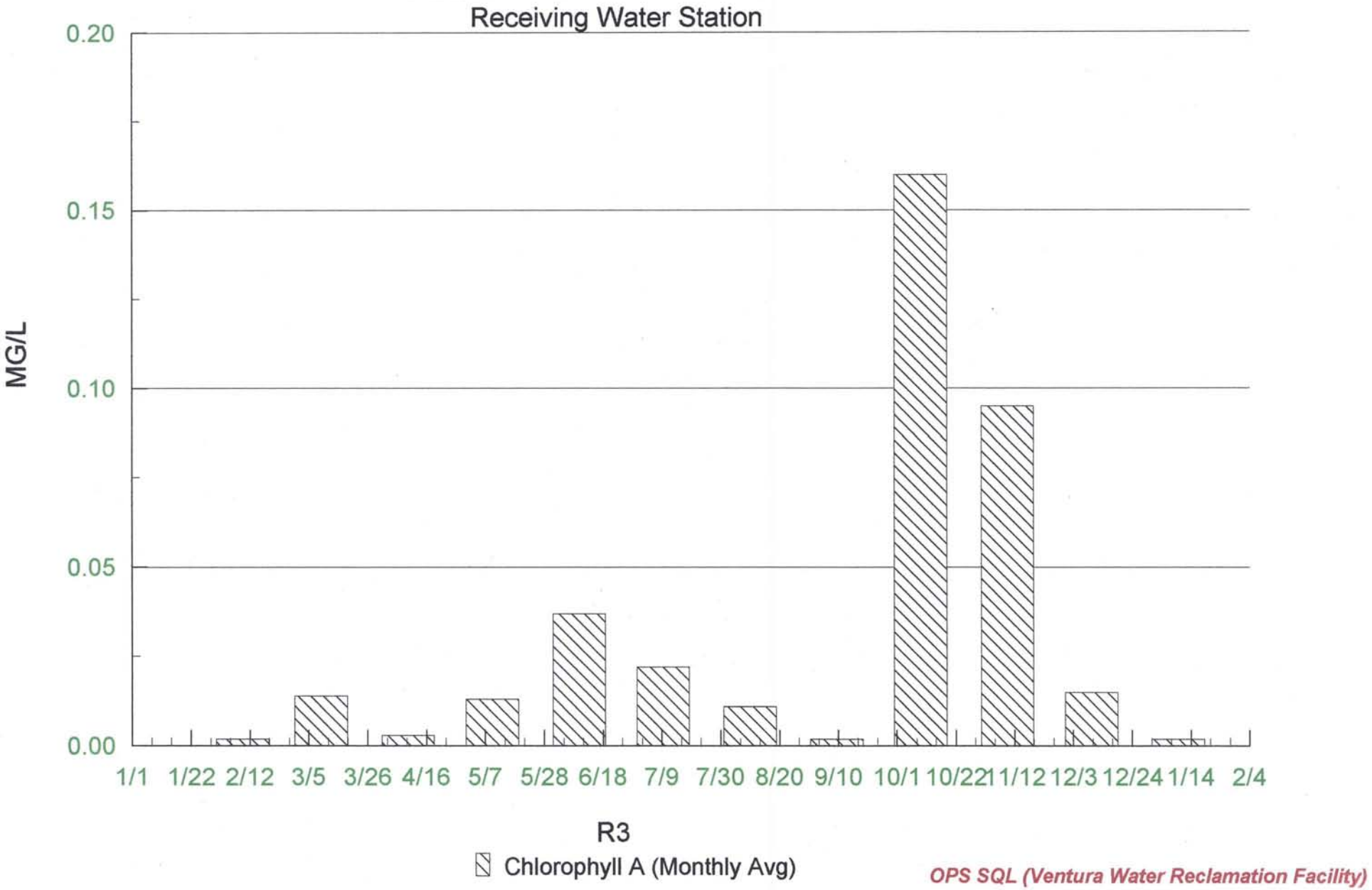

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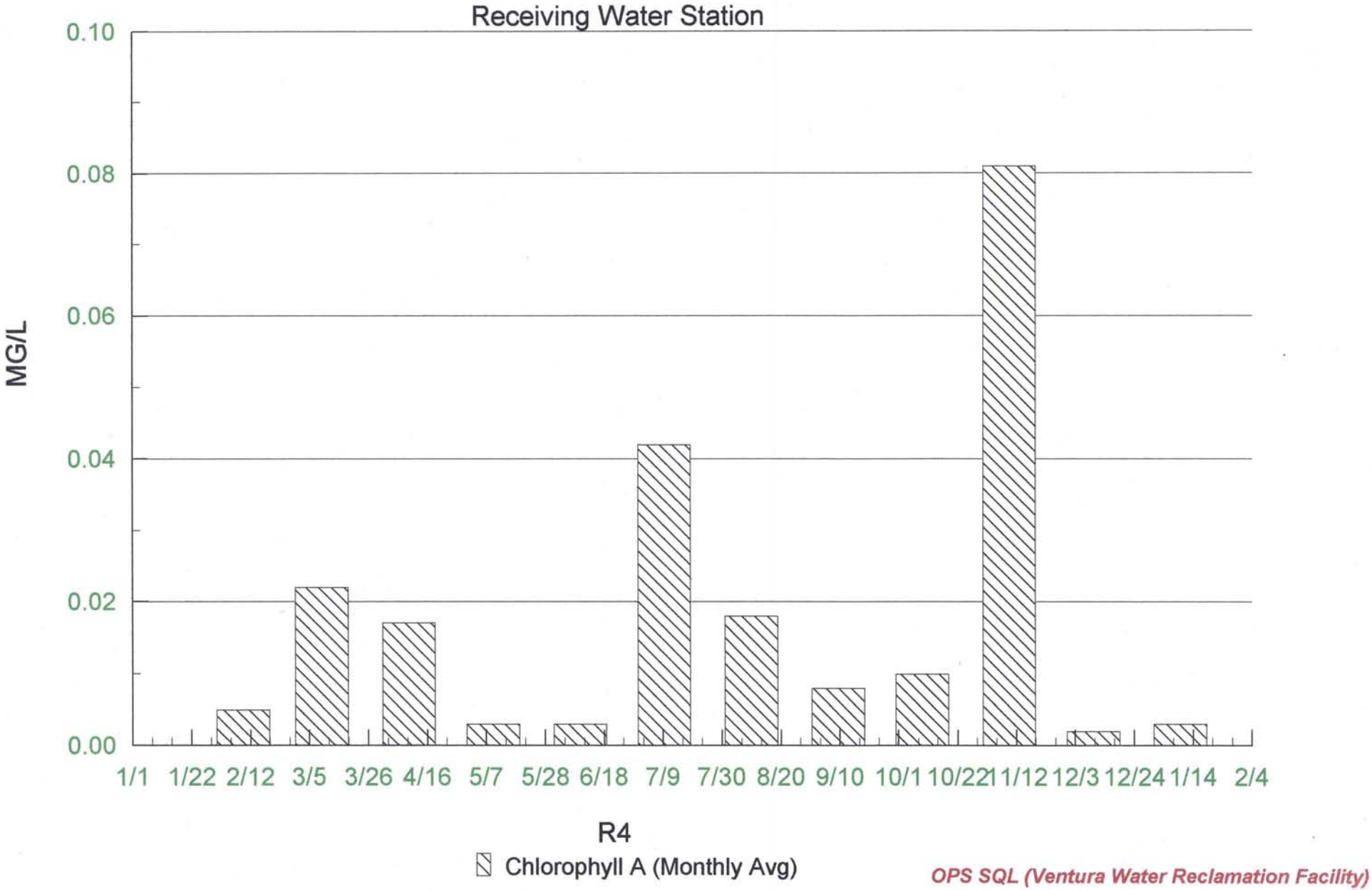
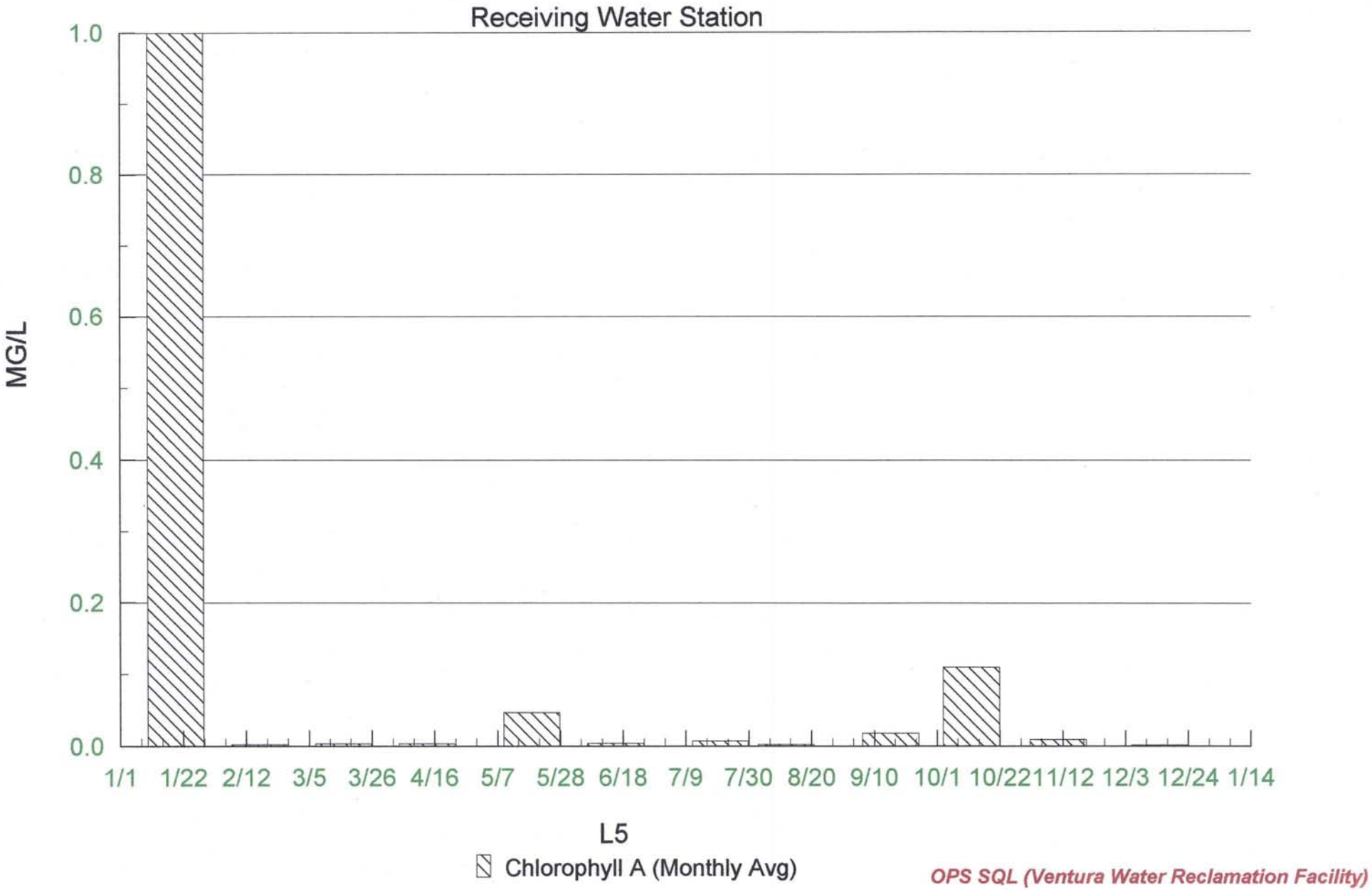


OPS SQL (Ventura Water Reclamation Facility)

Annual Report 2006



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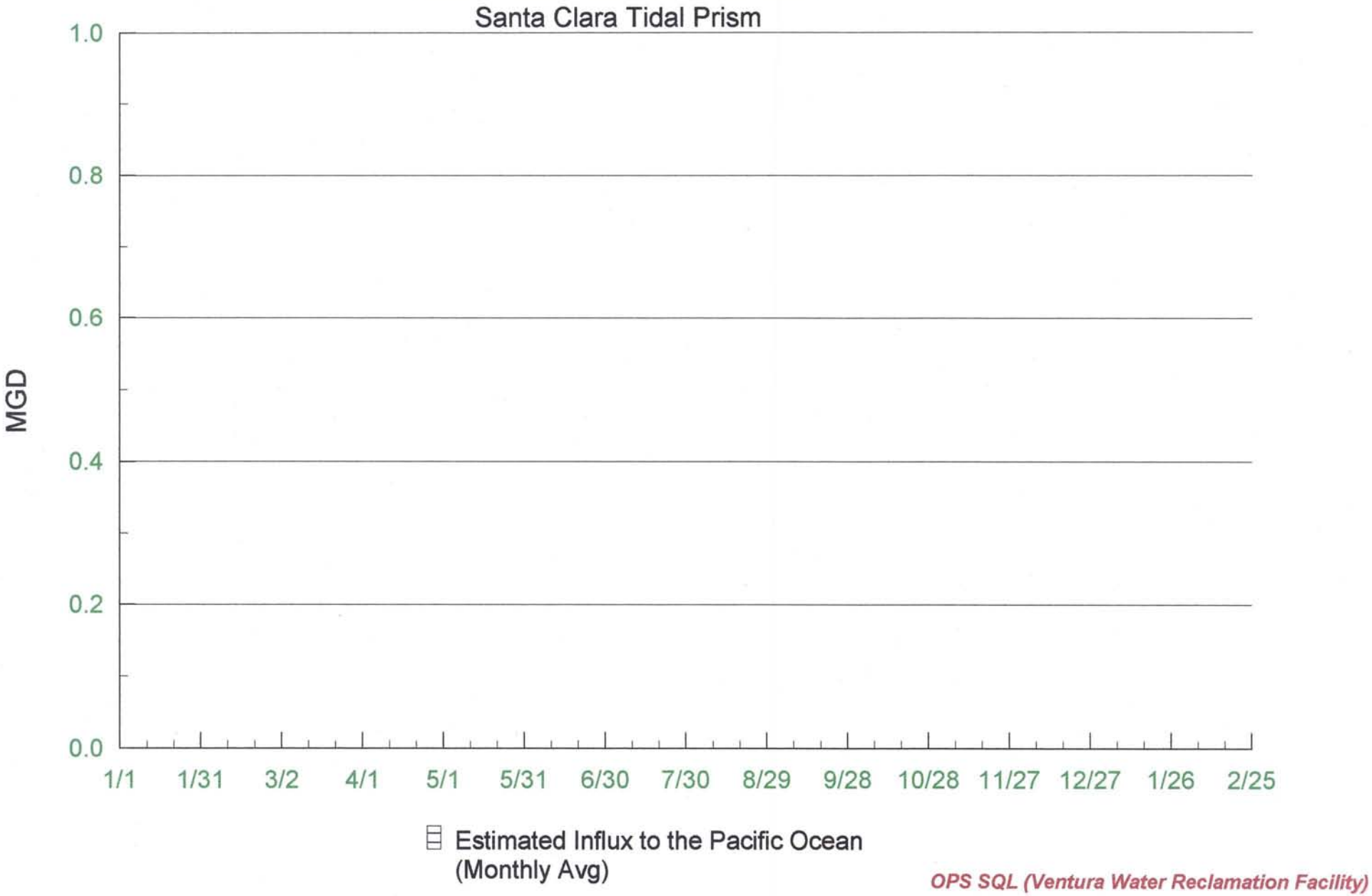

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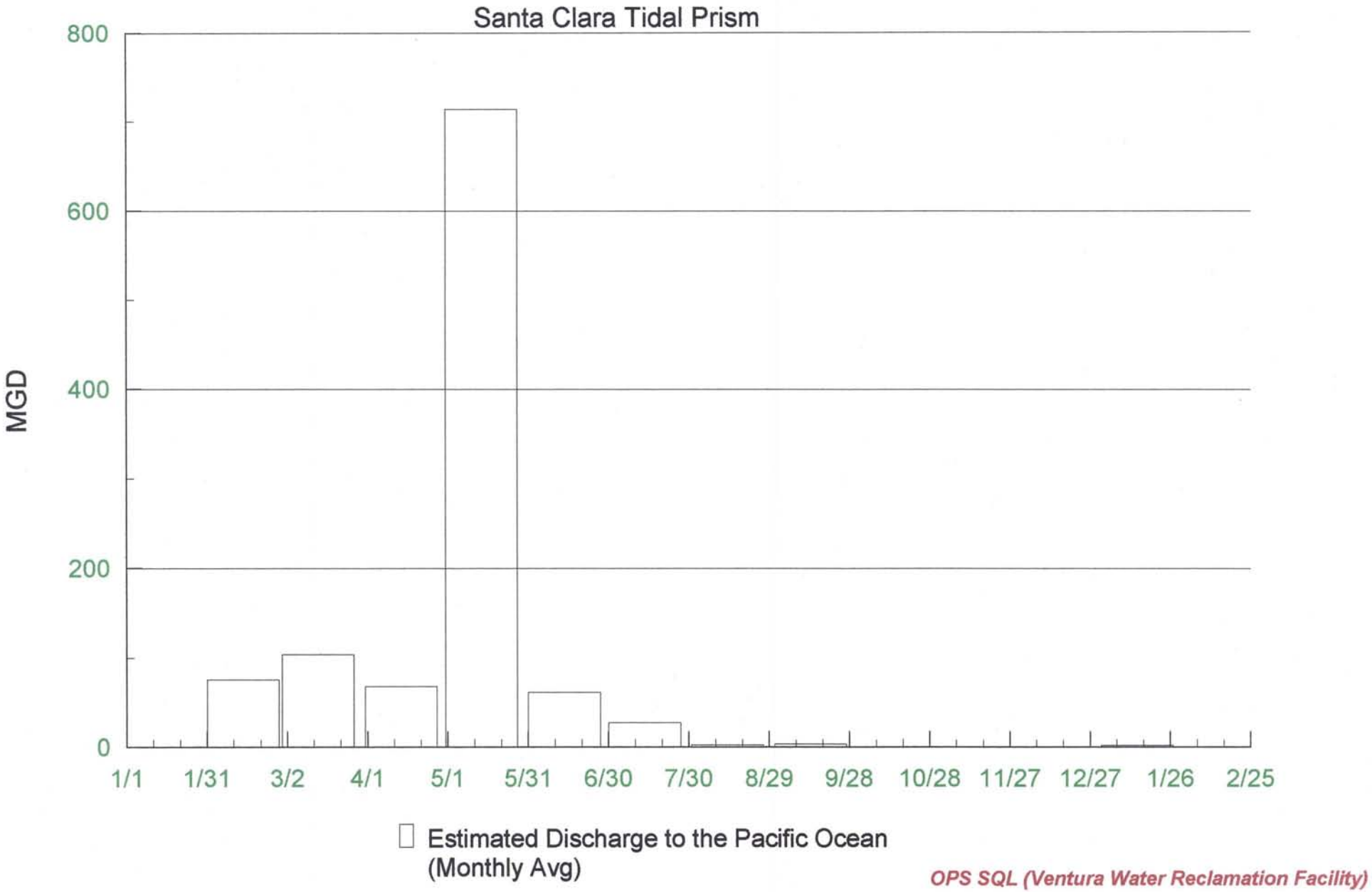

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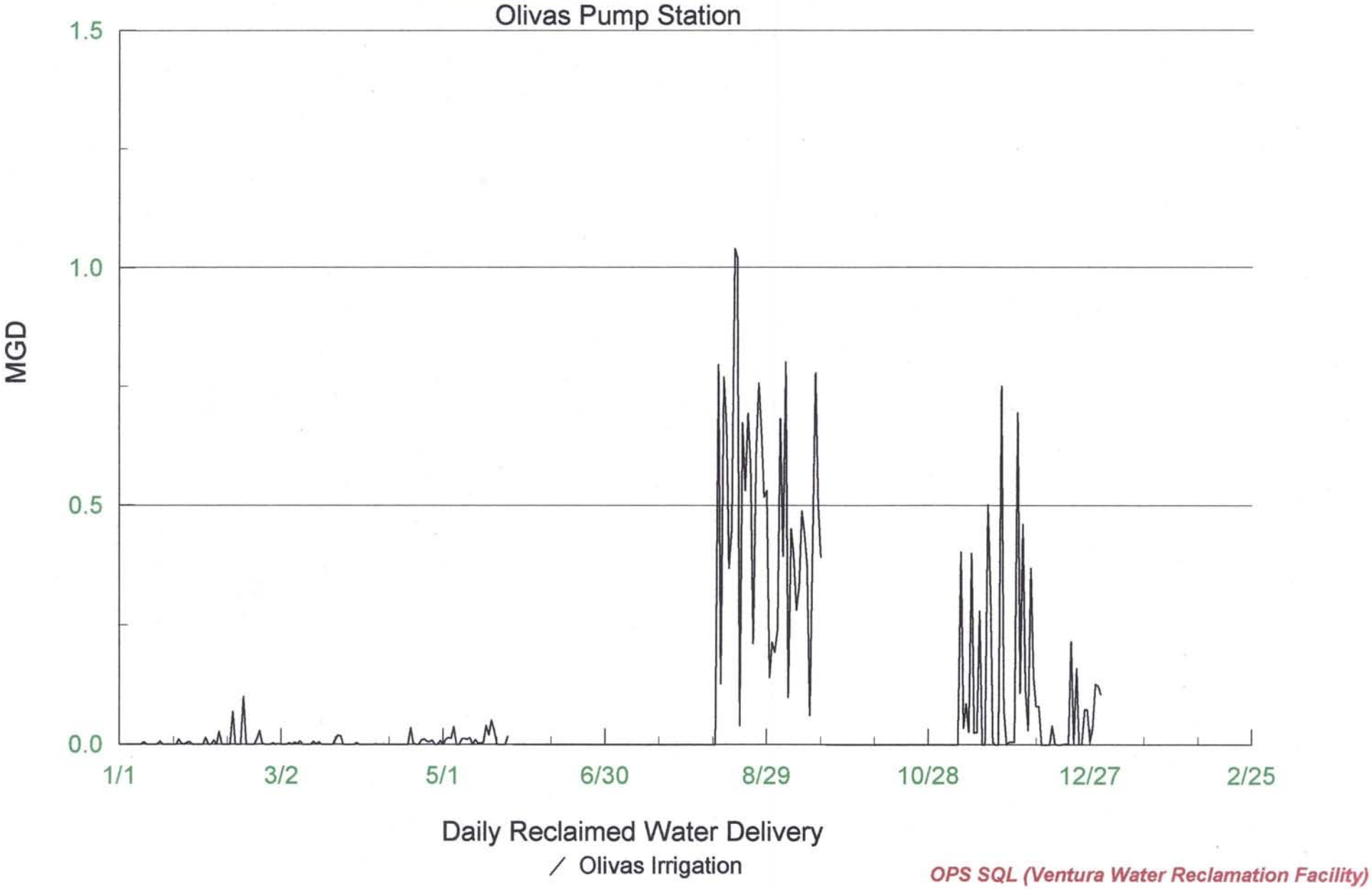

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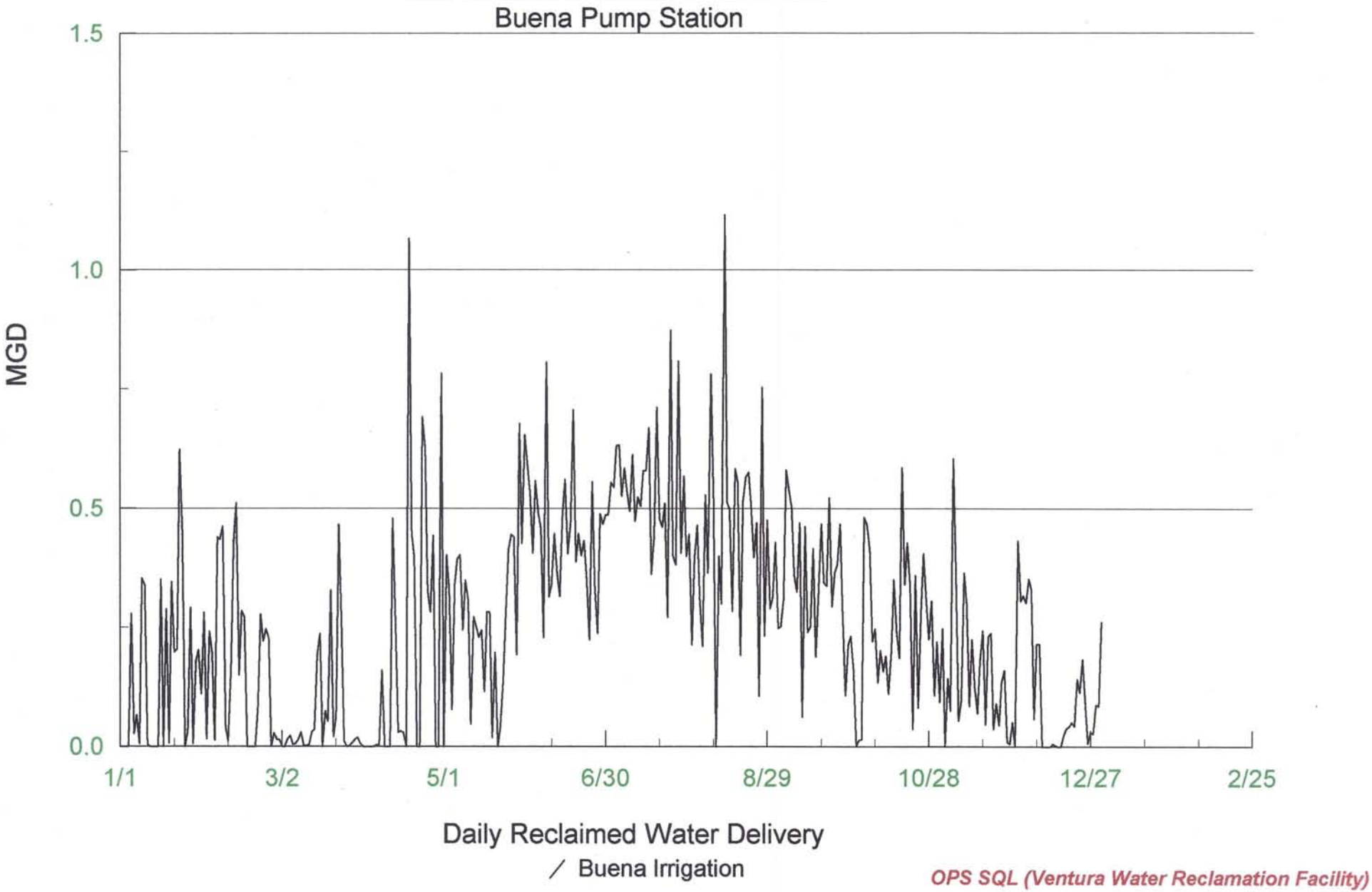

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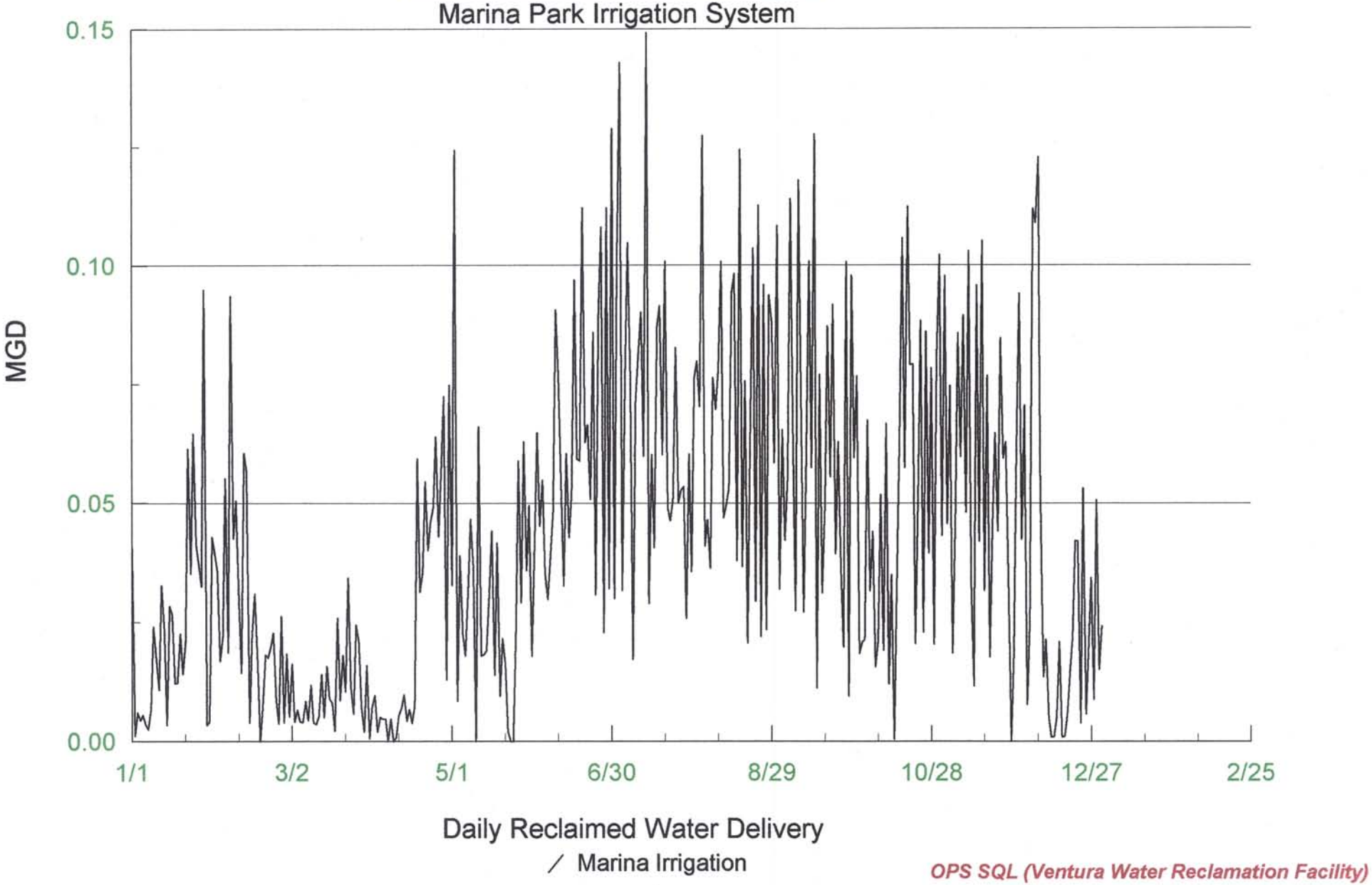

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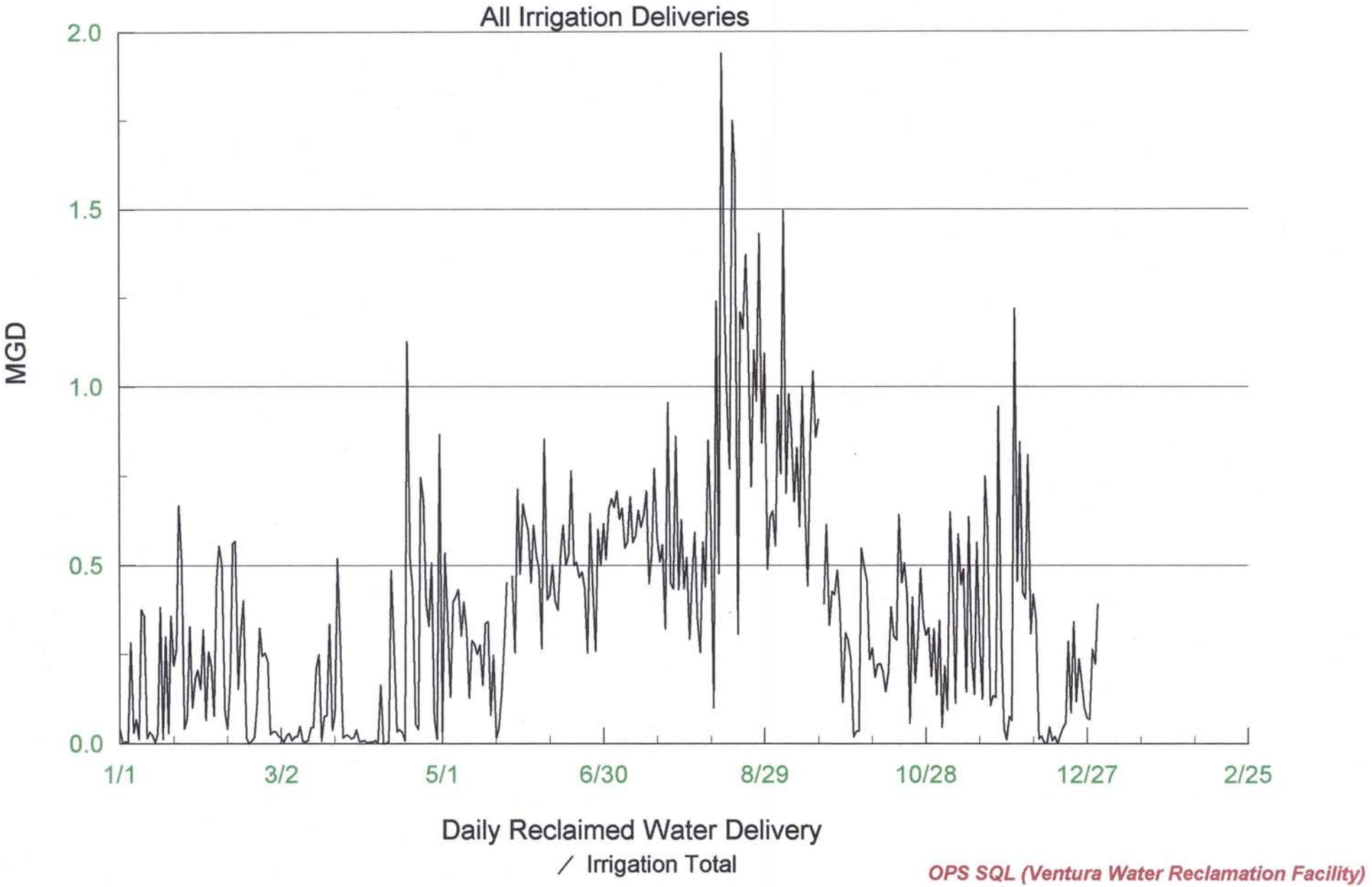


ANALYTICAL QUALITY ASSURANCE PROGRAM 2006

I. LABORATORY DUTIES AND OBJECTIVES

The City of San Buenaventura Wastewater Laboratory is responsible for all sampling and analysis for purposes of NPDES compliance monitoring related to the City operated wastewater treatment plant and for the City domestic water supply and water distribution system monitoring for SDWA compliance. It is aim to provide a product the does not cause harm to the public or the environment.

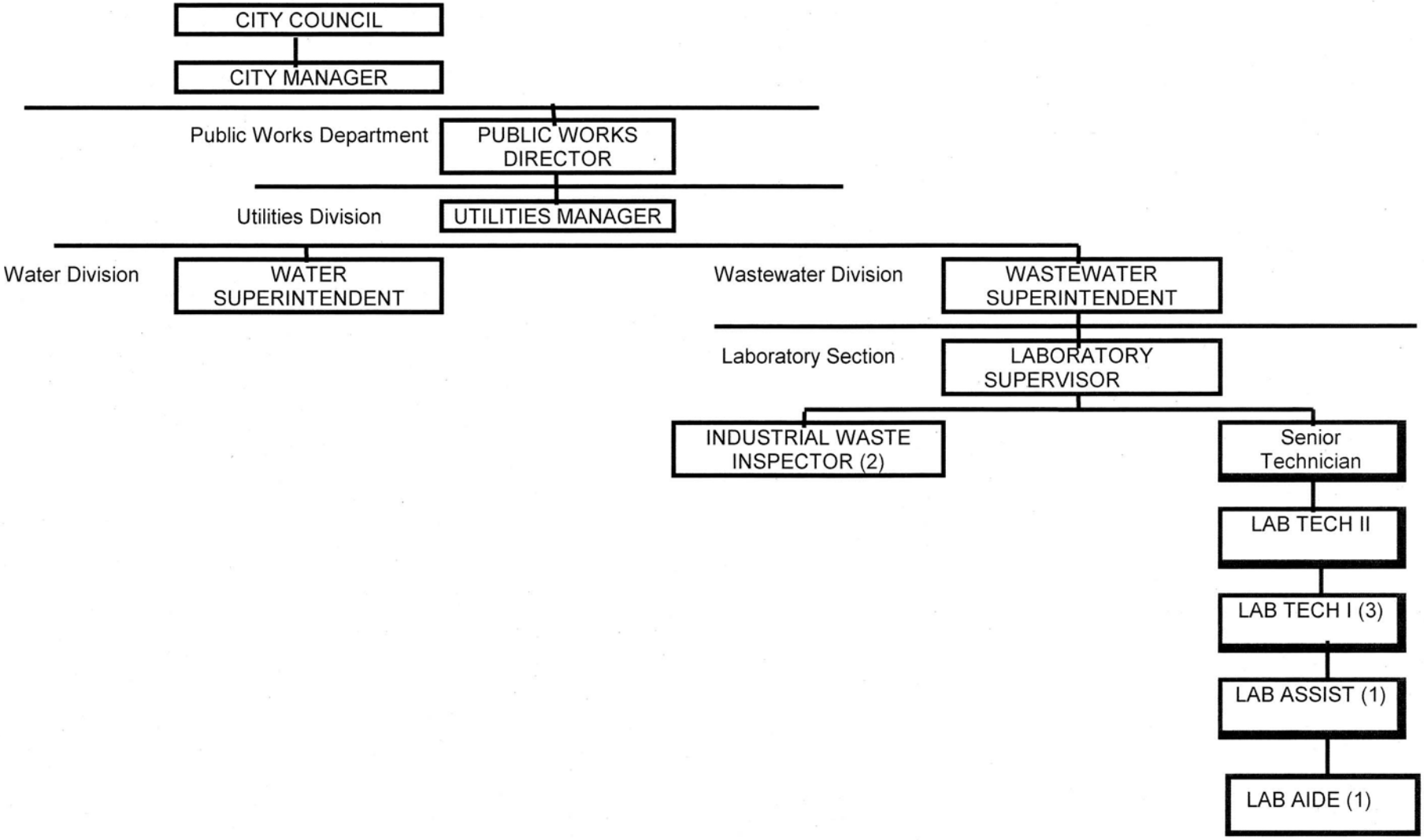
Current State of California Department of Health Services laboratory certification is attached.

All analyses for purposes of NPDES and SDWA reporting or for industrial waste monitoring conforms to the current requirements of 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants" or of 40 CFR Part 141, "National Interim Primary Drinking Water Regulations."

The purpose of this document is to outline the laboratory quality assurance procedures as they relate to compliance monitoring and to evaluate performance where statistically valid numbers of control results are available.

II. Laboratory Overview

A. Organization



Laboratory Supervisor: Florence Jay - May 1998 to Present

Education:

Bachelor of Sciences Fort Valley State College Major - Biology

Master of Sciences Iowa State University Major - Fisheries Biology

Experience:

Lab Tech I, City of San Buenaventura Water Division

Lab Tech II, City of San Buenaventura Wastewater Division

Senior Lab Tech, City of San Buenaventura Wastewater Division
Present Duties:

Responsible for the overall operation of laboratory and the supervision of the lab and industrial waste staff. Preparation of annual budget and monitoring reports for water and wastewater analyses. Write employee evaluations, order supplies and assist chemical, physical and biological analysis of water, wastewater and industrial waste samples.

Senior Technician: Michael L. Torres - August 1999 to Present

Education:

Bachelor of Science Microbiology – California State University @ Northridge (Pending)

Experience:

Microbiologist – Montgomery Watson Laboratories

Present Duties:

Supervise laboratory personnel and analyze water, wastewater and Industrial samples using the Gas Chromatogram and the Ion Chromatograph. Conduct the laboratory QC/QA program and assist with other chemical, physical and biological analysis of water, wastewater and industrial waste samples.

Lab Tech II: Craig Jones – September 2000 to Present

Education:

Bachelor of Science in Biology- University of North Carolina @ Chapel Hill

Experience:

Laboratory Technician I City of San Buenaventura Wastewater, Ventura California

Laboratory Technician, Ventura County Waterworks, Moorpark, California

Present Duties:

Analyze water, wastewater and industrial waste sample using the Atomic Absorption Spectrometer for mineral and metals. Perform chronic toxicity on the effluent and assist with other physical, chemical and biological analyses of water, wastewater and industrial waste samples. Daily input and recording of laboratory data.

Lab Tech I: Sergio Ormachea – July 2005 to June 2006

Education:

Bachelor of Science in Earth Science Emphasis in Hydrology University of California Santa Cruz

Experience:

Laboratory Aide City of San Buenaventura Wastewater Treatment; Ventura California

Present Duties:

Perform routine chemical, physical and biological analysis of water, wastewater and industrial waste samples. Collect water, wastewater, and receiving water samples for laboratory analyses. Daily input and recording of laboratory data.

Lab Tech I: Mary Champion - July2005 to Present

Education:

Bachelor of Science in Biology, minor in Chemistry, University of May Harding – Baylor

Experience:

Laboratory Technician, Los Angeles County Sanitation District Via Fastek

Laboratory Technician, San Manuel Bottle Water Group

Present Duties:

Perform routine chemical, physical and biological analysis of water, wastewater and industrial waste samples. Collect water, wastewater, and receiving water samples for laboratory analyses. Daily input and recording of laboratory data.

Lab Tech I: Felicitas Ramirez – September 2005 to Present

Education:

Bachelor of Science in Commerce Management Saint Louis University Philippines

Bachelor of Science in Biology Ventura College

Experience:

Laboratory Technician I Aquatic Bioassay Consulting Laboratories, INC

Aquatic Biologist Aquatic Bioassay Consulting Laboratories, INC

Laboratory Supervisor Aquatic Bioassay Consulting Laboratories, INC

Present Duties:

Perform routine chemical, physical and biological analysis of water, wastewater and industrial waste samples. Chronic bioassay testing of effluent, collect water, wastewater, and receiving water samples for laboratory analyses. Daily input and recording of laboratory data.

Lab Tech I: Manuel Zapien – July 2006 – Present

Education:

Associate of Science in General Science – Ventura College

Bachelor of Science in Geology – University California at Santa Barbara

CWEA Grade 1 Laboratory Analyst Certificate

Experience:

Laboratory Technician – Ventura County Water Works

Laboratory Technician – NUSII Technology, INC

Present Duties:

Perform routine chemical, physical and biological analysis of water, wastewater and industrial waste samples. Chronic bioassay testing of effluent, collect water, wastewater, and receiving water samples for laboratory analyses. Daily input and recording of laboratory data.

Laboratory Assistant: Jason Wong – August 2006 – Present

Education:

High School Diploma Adolf Camarillo High School

Experience:

Laboratory Aide – City of Ventura Wastewater Laboratory

Present Duties:

Collection of water Wastewater, industrial waste and receiving water samples for laboratory analyses. Perform simple Chemical, physical and bacteriological analyses on the various water samples. Input laboratory data and perform maintenance of laboratory equipment.

C. Instrumentation and Equipment

The division laboratory owns and maintains the following equipment and instrumentation.

UNIT	MANUFACTURER/MODEL	MAINTENANCE
Water Still	Corning 3 Liter Megapure	Division
	Barnstead Nanopure Diamond	Division
D. I. Water Supply	Culligan Commercial Units	Culligan
Forced Convection Oven	VWR S/P Model 1370FM	Division
Oven	VWR Model 1670 HAFO Series	Division
Muffle Furnace	Barnstead/Thermolyne Furnace Model F304203C	Division
Incubator (Air)	Precision Model 30M	Division
Incubator (Air)	Fisher Scientific Counter Top Model 6500	Division
Incubator (Water Bath)	Precision Circulating Bath Model 270	Division
Incubator (BOD)	Fisher Scientific Model FFU20FC4CWO	Division
Autoclave	Getinge/Castle Model 133LS	Getinge/Castle
pH Meters	Orion Model 601	Division
	Orion Model 701	Division
	Cole-Parmer 5938-00 Portable	Division
Specific Ion System	Orion Model EA 940 Meter/Electrodes	Division
Sealer	Idexx Quant- Tray Sealer Model 2X	Idexx
Conductivity Meter	Orion Model 162A	Division
D.O. Meters	Orion SL 9 Portable Probe	Division
	Orion Model 9708 Electrode	Division
	Thermo Orion Model 826A	Division
Nepthelometers	Hach Model 2100A	Hach
Water Bath	Blue M Magniwhirl Model 1110A	Division
Analytical Balances	Mettler Model AT 201 Mettler Model AE 163	Mettler
Top-Loading Balances	Mettler Model PM2000	Mettler
	Mettler Model PM2000	Mettler
Microscopes	American Optical 40-1000X Phastar	Division
	American Optical .7-3X Stereo	Division
	Nikon Eclipse E600	Division
Spectrophotometers	HP 8453 UV-Visible Spectrophotometer	Division
	Bausch & Lomb Spectronic 20	Division
Spectrophotometer AA-AE	Varian Spectra220/Furnace Atomizer/ GTA110 Autosamplers	Varian

Ion Chromatograph	Dionex, ASRS-I Self Regenerating Supressor/Dionex, CD20 conductivity Detector	Dionex
Gas Chromatograph	HP 6890 GCSystem Series Autosampler; Micro EC Detector Flame Ionization Detector	SC Chromatography
Purge/Trap system	HP 7695	SC Chromatography
Dispenser/Diluter	Gilson 222	Division
Samplers	5 ISCO Model 6712Fr	Division/ MRC Technologies, Inc
	2-American Sigma 900	Division/America Sigma
	1 ISCO Model 3700	Division/ MRC
	5 American Sigma 800SL	Division/America Sigma
Dishwasher (2)	Miele Professional Washers G-7783	Miele
SC Chromatography	-- SC Chromatography Torrance, CA	
Getinge/ Castle	-- Getinge/Castle Rochester, New York	
Idexx	--Idexx Westbrook, Maine	
Dionex	--Dionex Sunnyvale, CA	
Varian	-- Varian Sugarland, Texas	
MRC Technologies, Inc	--MRC Technologies, Newbury Park, CA	
Mettler Toledo	--Mettler Toledo Columbus, OH	
Miele	--Miele, Inc, La Verne, CA	
American Sigma	-- Ponton Industries, Inc, Santa Fe, Spring CA	
Division	-- Ventura Sanitation Division Personnel	

III. PROCEDURES, RECORDS AND REPORTS

A. Sampling

Procedures for sampling, sample preservation, handling, storage, disposal and transportation conform to the requirements of 40 CFR Part 136 and/or to 40 CFR Part 141 and amendments.

1. Collection

Samples are collected and delivered to the Wastewater Laboratory for analysis by Wastewater personnel (laboratory staff and plant operators), Industrial Waste Inspector, Water Division and other City personnel.

Samples collected maybe a grab or a 24-hour composite. All composite samples are collected using ISCO Models 6712 FR, 3700, or American Sigma Models 900. Samplers operate in flow proportion by utilizing the non-uniform time option of the control electronics.

Sample containers are of a material that does not produce positive or negative errors or cause contamination to the sample. Sample containers used for composite samples are pre–clean ICHEM plastic cubtainers or stainless steel container for organic analysis. Grab samples are collected in pre-cleaned plastic ICHEM cubtainers, pre-cleaned glass amber bottles and pre-cleaned 40 vials depending upon the analysis.

All samples are collected in a manner that will not introduce contaminates or interference causing erroneous results. Sample is collected daily, weekly, monthly, quarterly, semi-annually in accordance with the NPDES permit or as a special request, one time basis.

2. Sample Preservation

Sample preservations are done in accordance with the analysis to be performed in 40CFR. At sample collection the sampler does field measurements for pH, chlorine residuals and temperatures.

The laboratory preserves all samples not analyzed immediately that are collected and delivered to the laboratory by wastewater personnel (laboratory staff and plant operators). The technician performing the analysis preserves samples delivered by the Water Division or outside agencies.

The industrial waste inspector or the lab assistant preserves industrial samples collected for metals cyanide and total sulfide analyses. The lab technician performing the analysis preserves all other industrial waste samples.

3. Handling and Storage

The person preserving the sample is responsible for storage of the sample. When possible the samples are stored in their original containers in the containers.

All samples not requiring immediate analysis are preserved and refrigerated at 4^{o} C. They remain in storage until all the analyses has been completed and data approved. The technicians responsible for performing the required analysis remove and replace the samples in storage.

Samples placed into storage must be labeled with the sample name, date, and time sampled, the analysis required and the initial of the sampler. As part of the chain of custody the technician fills out the sign in and out label on the sample container or custody sheet when the sample is taken out of storage.

The amount of time a sample is held in storage varies from .5 hours to 6 months depending upon the analysis to be performed. The holding time for each sample is checked before it is placed into storage to ensure that the analysis is done within that time frame.

4. Disposal

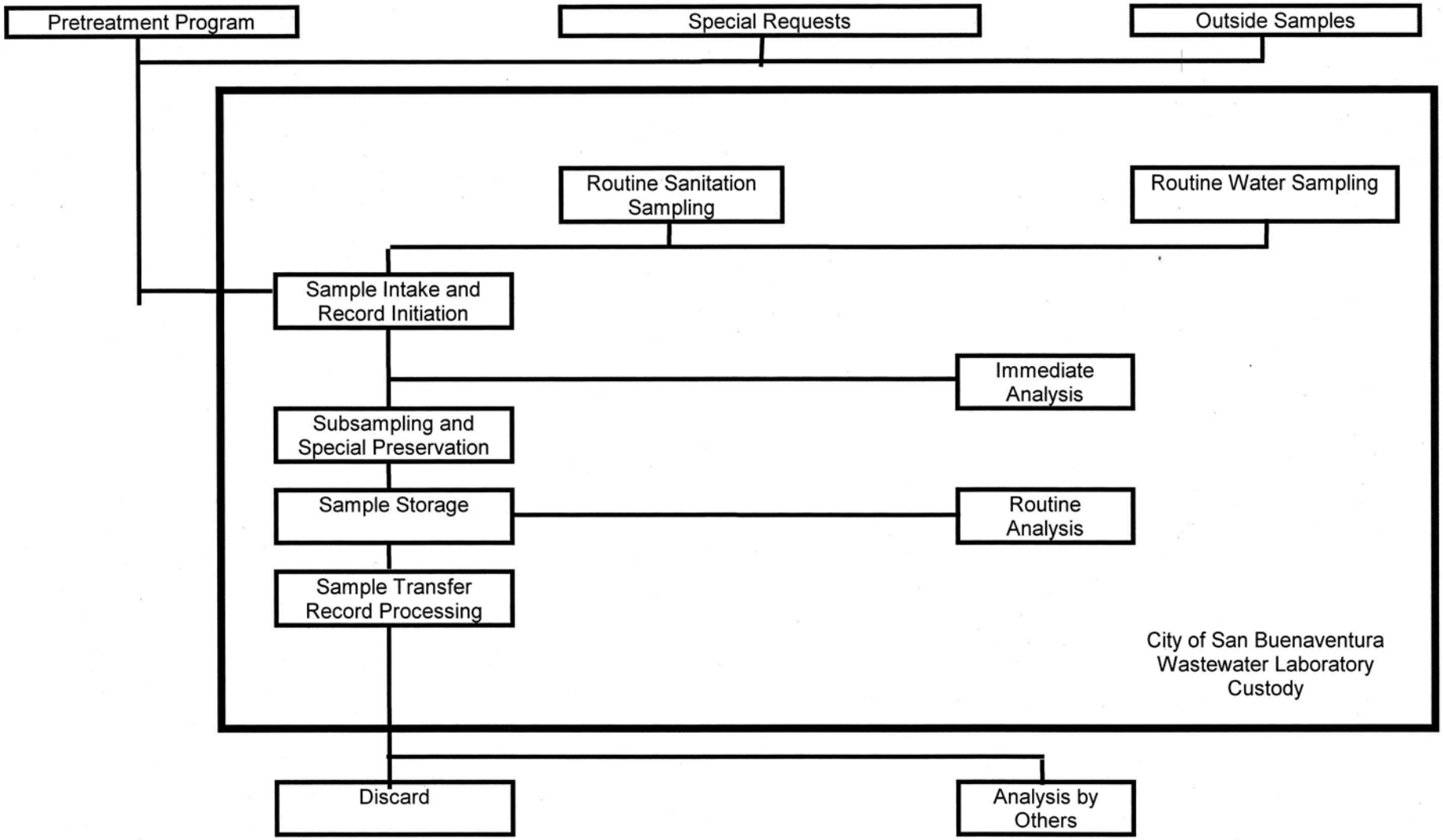
A sample can be disposed after the analysis is completed and the data has been reviewed by the laboratory supervisor, senior lab tech and industrial waste inspector. Samples should be disposed of in a safe manner that will not harm employees or the environment. Special care must be taken with samples that have been stored for long periods of times.

Wastewater and some industrial waste samples that have been stored for several weeks can create hazardous odor such as sulfides at the time of disposal. Proper safety attire and precaution must be taken when disposing these samples.

Samples analyzed for minerals and some metals maybe dumped down the drain and flushed with large of water for disposal.
Others must be neutralized before they can be disposed as in the case of COD vials. Samples that have been analyzed for pesticides or phenols can be evaporated under the fume hood. Large volumes of waste solvents and other hazardous materials are disposed of at hazardous waste disposal sites.

Review the Material Safety Data Sheet (MSDS) or check with the laboratory supervisor or the senior lab tech if you have questions on proper disposal of laboratory chemical or reagents.

The laboratory sample path is shown in the chart below.



A. Sample Identification

Sampling sites for routine wastewater and drinking water, which are, monitored daily, weekly, quarterly or semi-annually have fixed identity by name, number or acronym. This identification is used on location maps, in sample logs, on bench worksheets, on permanent records and on analysis reports.

The Laboratory Computer Data System assigns a Laboratory Identification Number (LID) to other water, wastewater, industrial waste samples or any non-routine sample received. The LID is in numerical order and is automatically assigned by the computer. This number is used in sample logs, bench worksheets, permanent records and on analysis reports. A copy of the Computer Data System is in the laboratory's Standard Operation Procedures (SOP).

B. Custody

A Chain of custody is initiated when a sample enters or leaves the laboratory unit. All samples done on a regular bases have printed worksheet which sample collectors log in custody information. All other samples enter the laboratory are log in the incoming sample book and given a laboratory Identification number.

Custody documents vary with the sampling purpose, but all custody transfers identify the sample by name and/or LID number, the sample collector and documents date, time, location, analysis required and circumstances of sample collection along with the history of sample transfers by person and/or organization. An example of the chain of custody form is in the laboratory's SOP.

C. Analysis Procedures

Analytical Procedures which the laboratory is certified to perform are according to the Standard Methods for the Examination of Water and Wastewater 18th, EPA Chemical Method for Analysis of Water and Wastes and EPA 40 CFR 136 & 141.

Bench procedures for analytical methods performed by the laboratory are maintained in a loose-leaf notebook in the laboratory work area. These are derived from approved standard procedures; which include reagents, standard preparation and concentration, test procedures, equipment and instrumentation with the analytical options for interference correction; samples and sample volumes defined for the samples analyzed. These procedures are reviewed periodically and revised to accommodate method and sample changes.

For unfamiliar and non-routine samples, the primary analytical procedures are followed to determine dilution, interference correction and all other method variables.

D. Records

Systematic procedures for record keeping and retention have been established in conformance with the requirements of compliance monitoring and good practice.

The following summarizes the purposes and retention criteria for each general type of written laboratory record.

Record	Function	Retention
Field Logs	Record of Field Measurements and Circumstances of Sampling	7 Years
Receiving Log	Record of Samples Received from Others	7 Years
Sample/Custody Form	Pretreatment Program Sampling	7 Years
Chromatographs	Analysis from Gas Chromatograph, Ion Chromatograph and Atomic Absorption	7 Years
Bench Logs	Worksheets for Data and Calculation	7 Years
Bound Record Books	Permanent Record of Analysis Results	7 Years
Reports	Transmittal of Information to Others	7 Years

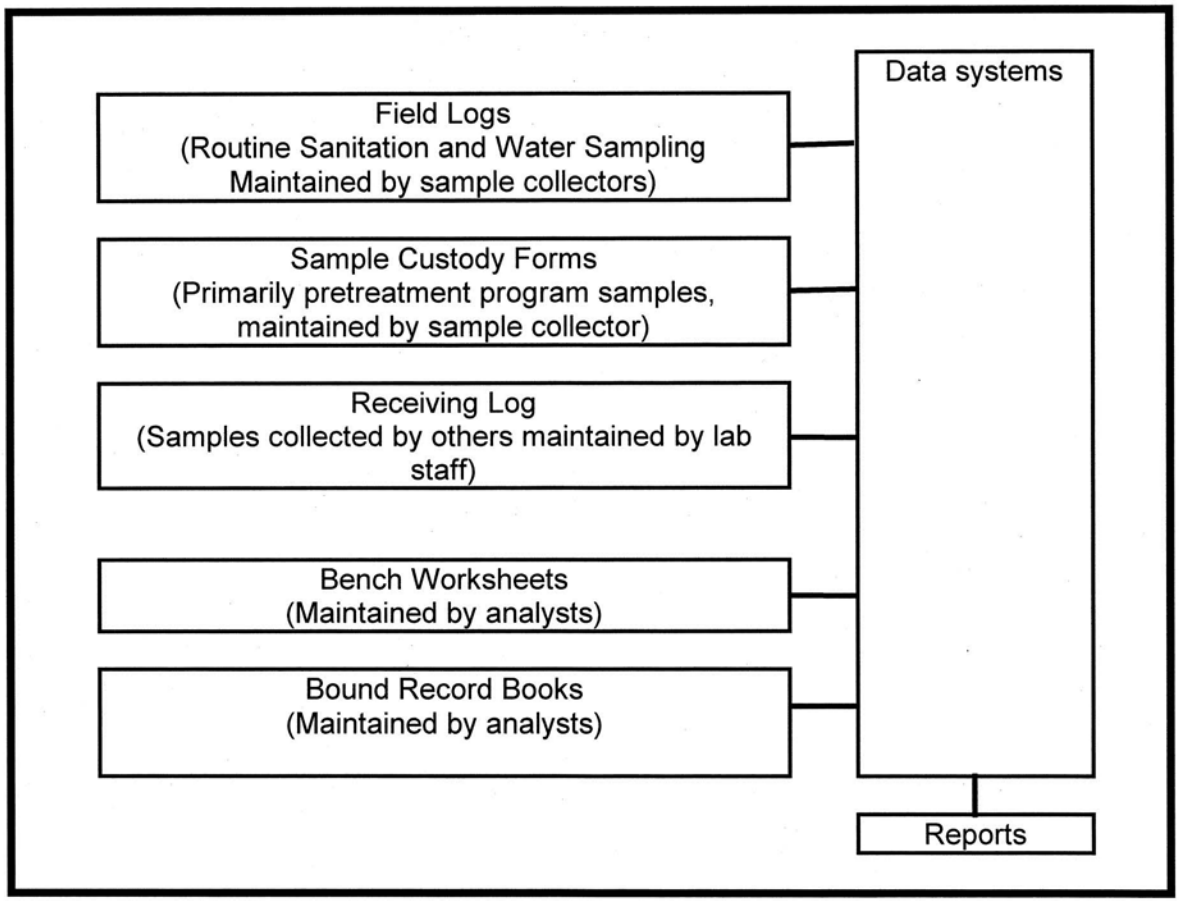
E. Reports

Report formats and contents are generally specified by the agency requesting the reports. Reports of routine monitoring are provided by computer methods designed to meet these specifications. Reports for water samples are generated from data entered into Run: Input1and Input 2 through the City Vax system. OPS Strategic Data Management program is used to generate wastewater reports. Industrial Waste reports are generated from the Environmental Control Database. Reports generated from data with LID numbers are generated from the Vax using Run Tra Input3. A copy of the Laboratory Computer Data Systems is located in the SOP manual in the Laboratory.

Data from field logs, custody forms, receiving logs, bench worksheets, bound logbooks, chromatographs and spectrophotometer is used to compile information required for these report. A flow chart for data input information is below.

All current procedures, records and reports are available at the laboratory for review and inspection. Records of annual analytical results are available from 1971 to present. Reports are reviewed and signed by the Laboratory Supervisor.

Data flow from generation to reporting is shown below.



Sample Retention Requirements

Sample Source	Frequency	Subsample	Discard After:	Authorization by:
Drinking Water	Weekly	Turbidity, Iron Filters	Analysis Complete	Analysts
Drinking Water	Any	Bacti	Inoculation Complete	Analysts
Drinking Water	Monthly	Chemical & Physical	Report Reviewed	Lab Supervisor
Drinking Water	Quarterly	THM	Report Reviewed	Lab Supervisor
Drinking Water	Annual	Metals	Report Reviewed	Lab Supervisor
Submerged Wells	Any	All	Report Reviewed	Lab Supervisor
Surface and Ocean	Any	Bacti	Inoculation Complete	Analysts
Wastewater	Daily Grab	pH, Turbidity, Residual	Analysis Complete	Analysts
Wastewater	Daily Grab	Bacti	Inoculation Complete	Analysts
Wastewater	Daily Composite	pH, Solids, Oxygen Demands, Conductivity	Analysis Complete	Analysts
Wastewater	Weekly Composite	Nitrogen, Chloride, Sulfate	Analysis Complete	Analysts
Wastewater	Monthly Composite	MBAS, Total P	Report Reviewed	Lab Supervisor
Wastewater	Monthly Composite	PO4, Alkalinity, B, F	Analysis Complete	Analysts/Supervisor
Wastewater	Weekly Grabs	Oil & Grease	Analysis Complete	Analysts
Wastewater	Quarterly Grabs	Cyanide	Analysis Complete	Analysts
Wastewater	Monthly Composite	Bioassay	Test Complete	Analysts/Supervisor
Wastewater	Quarterly Composite	Metals,	Report Reviewed	Lab Supervisor
Wastewater	Quarterly Composite	Pesticides, Phenol	Report Reviewed	Lab Supervisor
Receiving Waters	Weekly	Bacti, Chemical & Physical	Analysis Completed	Analysts
Receiving Waters	Monthly	Nitrogen, PO_4, Total P	Analysis Completed	Analysts/Supervisor
Receiving Waters	Quarterly	Priority Pollutants	Report Reviewed	Lab Supervisor
Source Control	Any	All	Report Reviewed	IW Inspector
Special	Any	All	Report Reviewed	Lab Supervisor

IV. QUALITY ASSURANCE PROCEDURES AND DOCUMENTATION

A. General

The quality assurance procedures employed by the laboratory are intended to accomplish the following objectives:

1. Provide primary control over the accuracy reagents, standards and other related materials employed in analysis.
2. Provide day-to-day control over the accuracy of measurements.
3. To ensure that the technicians understand the analyses.

Specific actions designed to accomplish these goals in each area of laboratory measurement are discussed below.

B. Laboratory Equipment

Equipment effected by the environmental, mechanical or electronic reasons is checked periodically for alignment. Other units, such as ovens or incubators are monitored for accuracy and consistency. Readings are taken or calibration procedures are performed and recorded at the frequency indicated below.

Unit	Calibration Procedure	Frequency
Ovens	Verify Temperature and Adjust as needed	Daily
Incubators	Verify Temperature and Adjust as needed	Daily
Furnace	Verify Temperature and Adjust as needed	Daily
Conductivity Meter	Calibrate with 1413 calibration standard	Daily
pH Meters	Calibrate with Buffer Solutions	Prior to Use
D.O. Meters	Air Calibrate	Prior to Use
D.O. Meters	Check Against Winkler Titration	Weekly
Light Merer		Annually
Turbidimeters	Calibrate with Secondary Turbidity Standards	Daily
Turbidimeters	Calibrate with Certified Standards	Daily
Turbidimeters	Calibrated by Hach	Annually
Spectrophotometer	Verify Wavelength Accuracy with Holmium Oxide Filter	Quarterly
Autoclave	Verify Accuracy of Integral Recorder with Lag Thermometer	Weekly
Weights	Calibrated by Troemner Precision Weights	Annually
Balances	Verify Accuracy with External Calibration Weights	Weekly
Balances	Calibrated Mettler Toledo	Annually

C. Primary Quality Control (QC)

Stock standard and reagents used in the analysis are logged with: the quantity used, dilution, finally volume, initials of the preparer, date prepared and discards date. This information is on each sample container. The method procedure is checked for the stability and storage of the stock solution or the reagent.

Titration reagents used on a daily basis is standardized weekly. The results from that standardization such as the multiplication factor adjustments; the normality of the reagent; and the initials of the person doing the standardization is label on the buret and the logged into the prep book. Other titration reagents are standardized prior to use and labeled with the same information listed above.

D. Chemical Analysis

Analysis reagents and standards are prepared from Primary standard materials, calibrated against Primary Standard materials, or purchased as certified purity and/or certified concentration standards from an approved agency such as NSI.

These procedures are used to assure conformance to narrow concentration or purity limits when procedures require it. It helps in determining when a reagent must be discarded and calculation factors to avoid errors in analysis results.

E. Day-to-day Control for Accuracy of Results

Testing for chemical and physical composition is conducted on a batch basis. Each sample batch is run with controls and spikes. An acceptance of sample results as valid is based on the results of the control analyzed and spike recovery. Weekly QC is performed on all daily analyses. QC is performed on all monthly, quarterly and annual analyses following the same format as for weekly QC.

Routine control samples are prepared in house for frequently performed analyses. For other procedures the Division Laboratory analyzes NSI and Accustandard traceable commercial reference samples.

In addition to these primary checks on the accuracy and precision of measurement, blank, sample replicates and matrix spikes are carried through all procedures.

F. Corrective Actions

Some laboratory data reduction is automated in many cases including instrument data generation. For automated applications, when a control, spike or sample duplicate evaluation fails to meet standard criteria for method performance, the analysis process is halted and/or sample results are withheld by the software system. Analysis cannot continue until the cause of the failure is identified and acceptable results from the control materials are produced.

In procedures where automation is not employed, the analyst performs the same function: data is not reportable unless results from analysis of control, spike and sample duplicates analyzed with the analysis batch are within acceptance standards.

All controls, spikes and duplicates must be within the acceptance limits before the results from the analysis can be recorded. After reviewing the analysis procedures, calculations and repeat of the analysis it cannot be determine the reason for the failure you must check with the QA person and the laboratory supervisor before recording the data. If it is determined that the QA material failed and the sampled material was accurate an explanation must be recorded for the failure in the "QIR" Qualitative Investigate Report book.

G. Special considerations for Trace Inorganic and Organic Analyses

The Quality Assurance requirements for trace inorganic and organic analyses are narrowly defined by the approved analytical procedures. These requirements are adhered to.

Materials used for preparing standards, spikes and control for Trace Inorganic analysis are obtained from SCP Science, Champlain, NY, AccuStandard, Inc, New Haven, CT and VHG, Manchester, NH.

Materials used to prepare standards; spikes and control for trace organic analysis are normally obtained from Supelco/Sigma Aldrich, Milwaukee, WI. If appropriate materials are not available from this source, they are obtained from NSI Solution, Raleigh, NC or from normal chemical supply sources.

As with all other measurements, acceptability of sample results is dependent on controls, spikes and duplicates analysis results being within acceptance limits. No QA analysis data can be recorded if the control, spike or duplicate fail without a valid reason.

H. Special Considerations for Toxicity Analysis

Instrument Calibration

Continuous temperature recorders for monitoring test solution temperatures are Taylor Instrument drum recorders with remote sensor probes. Recorders are calibrated against ASTM certified reference –1 ^{0} to 101 ^{0} glass thermometer by adjustment of the pen arm.

ASTM 30 ^{0} C thermometers are calibrated annual against the reference thermometer any corrections are labeled on the thermometer.

pH measurement is made with Thermo Orion meter which is calibrated prior to use.

D.O. measurement is made with a Thermo Orion meter which is calibrated daily..

Reference materials are analyzed as noted below.

Analysis	Reference Material	Frequency of Reference Analysis
Algae Growth Chronic Toxicity	Zinc	With Every Test Sample
Ceriodaphnia Survival and Reproduction	Copper	With Every Test Sample
Larval Fathead Minnow Survival and Growth	Copper	With Every Test Sample

Other test acceptance criteria:

Analysis	Criterion
Algae Growth Chronic Toxicity	Control cell counts >> 200,000/ml
Algae Growth Chronic Toxicity	Control Replicate Counts << 20% Different
Ceriodaphnia Survival	Survival in Controls >> 80%
Ceriodaphnia Reproduction	Number of young must be 15 or greater
Ceriodaphnia Survival and Reproduction	60% of Surviving Adults produce 3 broods
Larval Fathead Minnow Survival and Growth	Survival in Controls >> 80%
Larval Fathead Minnow Survival and Growth	Control Average Dry Weight >> 0.250 mg

Moderate hard synthetic dilution water is used as the control for all chronic bioassay analyses. The control is exposed to the sample conditions as the sample. A summary of the test acceptance for each species is below and a table for each is at the end of the QC report.

For Green Alga, *Selenastrum Capricornutum,* at the end of 96- hour the cell mass density in the control must be at least 1 x 10^6 cells/ml and variability (CV $^{o}/_{o}$) among control replicates less than or equal to 20 $^{o}/_{o}$ required. Test organisms must be4 to 7 days old and have a cell density of 10,000 cellls/ml.

For Daphnid, *Ceriodaphnia Dubia,* 60$^{o}/_{o}$ or more of the control females must have three brood with in an 8 day time period and 80$^{o}/_{o}$ or greater survival of all control organisms. Each surviving control female must produce an average of 15 or more babies. Test organisms must be less than 24 hours old and all released within an 8 hours period.

For, Fathead Minnow,*Pimephales Promelas,* at the end of 7 days the control must have 80$^{o}/_{o}$ or greater survival. Each survivor must have a dry weight or 0.25 mg or greater. Test organisms must be newly hatched larvae less than 24 hours old. If shipped not more than 48 hours old.

I. Bacteriological Analysis

Bacteriological analysis required by NPDES and SDWA monitoring is routinely performed by the multiple-tube fermentation procedure. Drinking water samples are analyzed using Colilert and recreational water by Idexx Quanti Tray method.

The Laboratory is equipped to perform Multiple Tube Fermentation (MTF) for total coliform, fecal coliform and fecal streptococci; membrane filter tests for total and fecal coliform analyses. Heterotrophic plate count (HPC) is performed monthly on water samples.

Quality assurance is for MTF, Colilert, and idexx methods consist of analyses of a blank, positive and negative control using the appropriate bacteria strand. Each new batch of MTF media and bacti supplies is tested before use. Controls are analyzed with each colilert an idexx tests.

Total coliform testing is performed following the procedures of Section 9221B of "Standard Methods for the Examination of Water and Wastewater," 18th Edition. All Samples are carried through the Brilliant Green Bile confirmation step.

At least 5% of all samples testing positive in the confirmed coliform procedure are carried through the completed procedure.

Fecal Coliform testing is performed following the procedures of Section 9221E of "Standard Methods for the Examination of Water and Wastewater," 18th Edition.

Fecal streptococcus testing is routinely performed following the procedures of Section 9230B of "Standard Methods for the Examination of Water and Wastewater," 18th Edition.

Control tests for water suitability and for inhibitory residues are performed annually following the procedures of Section 9020B(3)(a)(2) and 9020A(3)(c)(1) of "Standard Methods for the Examination of Water and Wastewater," 18th Edition.
Commercial dehydrated media is used for all analysis. Media is tested for accurate response by inoculation of portions from each prepared batch with Escherichia coli (ATCC 25922), Staphylococcus aureus (ATCC 25923) and Streptococcus faecalis (USEPA-EMSL Cincinnati 111054).

Coliform test materials failing to give a positive response to Echerichia coli, a negative response to Staphylococcus aureus and no response upon incubation of non-inoculated media are discarded.

Fecal strep test materials failing to give a positive response to Streptococcus faecalis, a negative response to Staphylococcus aureus and no response upon incubation of non-inoculated media are discarded.

Both media and equipment are prepared in weekly batches, and materials are tested for sterility using Tryptic Soy Broth before use and dated to assure they are used within acceptable holding periods or discarded.

Revised 3/26/07

ANNUAL REPORT OF ANALYSIS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Executed on the 28th,day of March, 2007, at Ventura, CA.

Daniel Pfeifer
Wastewater Superintendent

Florence B. Jay
Laboratory Supervisor