APPENDIX 5.1B

Modeling Support Data

APPENDIX 5.1B

Modeling Support Data

Tables presented in this Appendix are as follows:

5.1B-1	Wind Rose Frequency (Count) Distribution
5.1B-2	Wind Rose Frequency (Normalized) Distribution
5.1B-3	San Diego Region Climate Summary
5.1B-4	Ambient Air Quality Standards
5.1B-5	San Diego Air Basin Historical Air Quality Data
5.1B-6	Ozone 8 Hr Air Quality Data (2001-2005)
5.1B-7	Ozone 1 Hr Air Quality Data (2001-2005)
5.1B-8	Carbon Monoxide Air Quality Data (2001-2005)
5.1B-9	Nitrogen Dioxide Air Quality Data (2001-2005)
5.1B-10	PM10 Air Quality Data (2001-2005)
5.1B-11	PM2.5 Air Quality Data (2001-2005)
5.1B-12	Sulfur Dioxide Air Quality Data (2001-2005)
5.1B-13	Building Coordinates and Height Data

In addition, this appendix contains the following figures:

5.1B-1	Proposed Facility Plot Plan
5.1B-2	10m Downwash and Fenceline Receptor Grid
5.1B-3	Coarse and Fine Grid Receptors
5.1B-4	Building and Fenceline Nearby Receptor Grid
5.1B-5	Facility Boundary Data
5.1B-6 (a-d)	Annual Composite Wind Rose
5.1B-7	Wind and Stability Class Frequency Distributions
5.1B-8	San Diego Air Basin Monitoring Stations

Modeling input/output files are included in the enclosed CD's.

Table 5.1B-1

Station ID: 23188
Year: 1996 1997 1998
Date Range: Jan 1 - Dec 31
Time Range: 00:00 - 23:00

Run ID: SAN DIEGO/LINDBERGH FIELD

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
348.75-11.25	830	292	67	4	0	0	1193
11.25-33.75	463	165	44	2	0	1	675
33.75-56.25	282	94	33	7	0	0	416
56.25-78.75	292	99	32	2	1	0	426
78.75-101.25	306	194	57	3	0	2	562
101.25-123.75	174	174	103	17	0	0	468
123.75-146.25	138	160	200	39	2	0	539
146.25-168.75	243	340	339	78	10	9	1019
168.75-191.25	358	569	599	79	8	4	1617
191.25-213.75	313	487	733	45	2	0	1580
213.75-236.25	269	431	842	63	2	0	1607
236.25-258.75	229	307	621	75	8	0	1240
258.75-281.25	417	619	1430	309	9	1	2785
281.25-303.75	613	995	2192	514	15	1	4330
303.75-326.25	533	728	932	183	0	0	2376
326.25-348.75	597	369	223	16	0	0	1205
Total	6057	6023	8447	1436	57	18	

Frequency of Calm Winds: 4266
Average Wind Speed: 2.87 m/s

Table 5.1B-2

Station ID: 23188
Year: 1996 1997 1998
Date Range: Jan 1 - Dec 31
Time Range: 00:00 - 23:00

Run ID: SAN DIEGO/LINDBERGH FIELD

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.031554	0.011101	0.002547	0.000152	0.000000	0.000000	0.045354
11.25-33.75	0.017602	0.006273	0.001673	0.000076	0.000000	0.000038	0.025661
33.75-56.25	0.010721	0.003574	0.001255	0.000266	0.000000	0.000000	0.015815
56.25-78.75	0.011101	0.003764	0.001217	0.000076	0.000038	0.000000	0.016195
78.75-101.25	0.011633	0.007375	0.002167	0.000114	0.000000	0.000076	0.021366
101.25-123.75	0.006615	0.006615	0.003916	0.000646	0.000000	0.000000	0.017792
123.75-146.25	0.005246	0.006083	0.007603	0.001483	0.000076	0.000000	0.020491
146.25-168.75	0.009238	0.012926	0.012888	0.002965	0.000380	0.000342	0.038739
168.75-191.25	0.013610	0.021632	0.022772	0.003003	0.000304	0.000152	0.061474
191.25-213.75	0.011899	0.018514	0.027866	0.001711	0.000076	0.000000	0.060067
213.75-236.25	0.010227	0.016385	0.032010	0.002395	0.000076	0.000000	0.061093
236.25-258.75	0.008706	0.011671	0.023609	0.002851	0.000304	0.000000	0.047141
258.75-281.25	0.015853	0.023533	0.054364	0.011747	0.000342	0.000038	0.105877
281.25-303.75	0.023304	0.037827	0.083333	0.019541	0.000570	0.000038	0.164614
303.75-326.25	0.020263	0.027676	0.035432	0.006957	0.000000	0.000000	0.090328
326.25-348.75	0.022696	0.014028	0.008478	0.000608	0.000000	0.000000	0.045811
Total	0.230269	0.228977	0.321130	0.054592	0.002167	0.000684	0.837819

Frequency of Calm Winds: 16.22%
Average Wind Speed: 2.87 m/s

Table 5.1B-3

Percent Frequency Daily PRECIPITATION AMOUNTS for Lindbergh Field

POR: : 1948-1990

	NONE	TRACE	.01	<=.05	<=.10	<=.25	INCHES <=.50	<=1.0	<=2.5	<=5.0	<=10.0	<=20.0	>20.0	PERCENT OF DAYS WITH AMOUNTS >=.01	TOTAL NO. OF OBS	TOTAL PRECIP (INCHES) HI	LOW
JAN	71.3	6.5	2.0	4.7	3.4	4.1	4.1	2.6	1.2	.1	0	0	0	22.1	1333	1.95	5.95	T
FEB	72.7	8.2	2.2	3.2	3.4	4.6	2.1	2.9	.8	0	0	0	0	19.1	1203	1.43	5.40	0
MAR	70.0	8.7	2.3	4.1	3.5	4.8	3.2	2.6	.9	0	0	0	0	21.3	1333	1.69	6.57	T
APR	74.7	10.4	2.8	3.6	2.6	2.9	1.7	.9	.4	0	0	0	0	14.9	1290	.79	3.71	T
MAY	79.1	13.8	2.3	2.4	1.1	.6	.6	.1	.1	0	0	0	0	7.1	1333	.20	1.79	0
JUN	83.3	13.5	1.2	1.1	.3	.3	.3	0	0	0	0	0	0	3.3	1290	.06	.87	0
JUL	92.3	6.6	.5	.4	.2	.1	0	0	0	0	0	0	0	1.1	1333	.01	.19	0
AUG	93.0	5.3	.4	.5	.2	.3	.1	.2	.1	0	0	0	0	1.7	1333	.10	2.13	0
SEP	88.1	7.8	.5	1.5	.6	.7	.5	.3	0	0	0	0	0	4.1	1290	.19	1.90	0
OCT	85.7	6.9	1.6	2.1	.7	1.7	.5	.9	0	0	0	0	0	7.4	1333	.38	1.76	0
NOV	78.8	5.6	2.0	3.1	1.9	3.1	3.2	1.6	.9	0	0	0	0	15.7	1290	1.24	5.82	0
DEC	76.9	5.9	1.5	3.6	2.4	3.8	3.3	1.7	.8	0	0	0	0	17.1	1330	1.41	6.60	.02
ANN	80.5	8.3	1.6	2.5	1.7	2.2	1.6	1.1	.4	*	0	0	0	11.2	15691	9.46	19.41	3.41

* = PERCENT < .05
T = ZERO PRECIP, SNOWFALL OR SNOW DEPTH MEASURED BUT A TRACE WAS NOTED
\+ = ANNUAL HI AND LOW VALUES ARE DERIVED FROM ANNUAL TOTALS
\# = EXCESSIVE MISSING DATA - VALUE NOT COMPUTED

Cumulative Percent Frequency Daily MINIMUM TEMPERATURES at Lindbergh Field

POR 1948-1990

Temp(F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
>=75	0	0	0	0	0	0	.3	1.1	1.6	0	0	0	.2
>=70	0	0	0	0	0	.9	9.2	15.4	11.6	.7	0	0	3.2
>=65	0	0	0	.2	2.0	12.1	55.2	74.5	51.9	16.1	.4	0	17.9
>=60	1.7	1.4	2.3	10.8	36.5	76.1	97.6	99.6	92.0	55.9	9.3	1.4	40.6
>=55	13.4	17.6	30.5	61.0	89.4	99.1	100	100	99.8	90.6	42.9	13.1	63.4
>=50	41.3	51.5	72.3	93.4	99.5	100	100	100	100	99.2	79.2	39.2	81.4
>=45	74.7	87.1	96.0	99.7	100	100	100	100	100	99.9	97.3	81.3	94.7
>=40	94.8	98.3	99.9	100	100	100	100	100	100	100	99.8	96.5	99.1
>=35	99.5	100	100	100	100	100	100	100	100	100	100	99.8	99.9
>=30	99.9	100	100	100	100	100	100	100	100	100	100	100	100
>=25	100	100	100	100	100	100	100	100	100	100	100	100	100
MEAN	48.2	49.8	52.0	55.1	58.3	61.4	65.1	66.5	64.8	60.1	53.4	48.6	57.0
STDV	5.4	4.7	4.1	3.5	3.0	2.8	3.1	3.0	3.9	4.3	4.6	4.8	7.5
#OBS	1333	1203	1333	1290	1333	1290	1333	1332	1290	1333	1290	1330	15690

* = PERCENT < .05
# = EXCESSIVE MISSING DATA VALUE NOT COMPUTED

Cumulative Percent Frequency Daily MAXIMUM TEMPERATURES at Lindbergh Field

POR: : 1948-1990

Temp(F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
>=110	0	0	0	0	0	0	0	0	.1	0	0	0	*
>=105	0	0	0	0	0	0	0	0	.2	.1	0	0	*
>=100	0	0	0	0	0	.2	0	0	.8	.4	0	0	.1
>=95	0	0	0	.2	.1	.5	.2	.1	1.6	1.1	.2	0	.3
>=90	0	0	.2	.7	.6	1.4	.7	.5	4.2	2.9	1.0	0	1.0
>=85	.3	.7	.5	1.9	1.5	2.0	3.9	4.6	10.7	7.6	3.6	.4	3.1
>=80	4.1	4.0	2.8	5.2	3.5	5.5	17.3	24.7	25.7	14.9	9.8	3.2	10.1
>=75	9.8	10.5	8.2	10.9	9.1	17.9	63.2	79.1	61.9	35.7	22.1	10.5	28.4
>=70	22.1	24.5	20.4	29.5	37.9	70.2	98.4	99.8	97.5	84.2	45.5	26.7	54.9
>=65	47.9	55.4	58.7	77.8	92.9	98.8	100	100	100	99.4	86.7	60.1	81.6
>=60	85.4	91.3	96.3	99.4	99.9	100	100	100	100	100	99.4	90.3	96.8
>=55	98.5	99.6	100	100	100	100	100	100	100	100	100	99.5	99.8
>=50	99.8	100	100	100	100	100	100	100	100	100	100	100	100
>=45	100	100	100	100	100	100	100	100	100	100	100	100	100
MEAN	65.3	66.2	66.3	68.2	69.2	71.7	76.1	77.5	77.1	74.2	70.5	66.5	70.8
STDV	6.2	5.9	5.2	5.4	4.3	4.6	3.9	3.7	5.7	5.9	6.2	5.9	6.8
#OBS	1333	1203	1333	1290	1333	1290	1333	1333	1290	1333	1290	1330	15691

* = PERCENT < .05
# = EXCESSIVE MISSING DATA - VALUE NOT COMPUTED

San Diego Lir rgh Field Summary of Various Climate Factors

POR: (HOURLY): 1948-1990

	TEMPERATURE (DEG F) MEANS			EXTREME		PRECIPITATION (INCHES) (^) PRECIP.			SNOWFALL (@) 24H			24H	REL HUM PERCENT (LST) AM 07	PM 16	VAP PR IN. HG.	DEW PT. (F)	PR ALT FT. $	WIND (KTS) PREVAIL DIR	SPD	MAX GST	SKY CVR +	MEAN NO. OF DAYS WITH (&) PRECIP. INCHES >=.01	>=.50	SNOW- FALL(") >=.10	>=1.5	TH STM	FOG *	TEMP (DEG F) MAX >=90	MAX >=70	MIN <=32	MIN <=10
JAN	65	48	57	88	29	1.9	5.9	T	2.6	T	T	T	70	57	.28	43	20	NW	7	56	CLR	7	1	0	0	#	10	0	7	#	0
FEB	66	50	58	88	36	1.4	5.4	0	1.7	0	0	0	72	58	.30	45	20	WNW	8	45	CLR	5	1	0	0	#	9	0	7	0	0
MAR	66	52	59	93	39	1.7	6.6	T	2.1	0	0	0	73	59	.32	47	25	WNW	9	46	OVR	7	1	0	0	#	7	#	6	0	0
APR	68	55	62	98	44	.8	3.7	T	1.4	0	0	0	72	59	.36	50	20	WNW	9	37	OVR	4	#	0	0	#	6	#	9	0	0
MAY	69	58	64	96	48	.2	1.8	0	1.5	0	0	0	73	63	.40	53	20	WNW	8	35	OVR	2	#	0	0	#	6	#	12	0	0
JUN	72	61	67	101	51	.1	.9	0	.5	0	0	0	77	66	.46	57	20	WNW	8	32	OVR	1	0	0	0	#	7	#	21	0	0
JUL	76	65	71	95	55	T	.2	0	.1	0	0	0	79	65	.54	61	20	WNW	8	26	OVR	#	0	0	0	#	6	#	31	0	0
AUG	77	66	72	98	58	.1	2.1	0	1.4	0	0	0	79	66	.56	62	20	WNW	8	29	OVR	1	#	0	0	#	6	#	31	0	0
SEP	77	65	71	111	51	.2	1.9	0	.9	0	0	0	78	65	.53	61	25	WNW	8	38	CLR	1	#	0	0	#	8	1	29	0	0
OCT	74	60	67	107	43	.4	1.8	0	1.0	0	0	0	74	63	.44	55	20	WNW	8	35	CLR	2	#	0	0	#	11	1	26	0	0

AMC ICHI
NO DAY DAY
ALT FRI
VY IONS RKI HAT AS NOWFALL FROM
PRE ANT HKY CCI ION
IONS
MAY OT DAY UM MOI VALI ING
OWI FAI IA POTAIL HT
DAY
NOFRI

Mor UN
ugy

IAN
ION OBS
HAT IOW DUP
IOW

FEB

MAY

JUL

OC

ANI

ANN DAY MAY QUAL DAY
AT VALI NOC IOMI
NO DAY DAY

Table 5.1B-4

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 μg/m^3)		0.08 ppm (157 μg/m^3)		
Respirable Particulate Matter (PM10)	24 Hour	50 μg/m^3	Gravimetric or Beta Attenuation	150 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 μg/m^3		—		
Fine Particulate Matter (PM2.5)	24 Hour	No Separate State Standard		35 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 μg/m^3	Gravimetric or Beta Attenuation	15 μg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
	Annual Arithmetic Mean	0.030 ppm (56 μg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 μg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (338 μg/m^3)		—		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 μg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 μg/m^3)		0.14 ppm (365 μg/m^3)	—	
	3 Hour	—		—	0.5 ppm (1300 μg/m^3)	
	1 Hour	0.25 ppm (655 μg/m^3)		—	—	—
Lead[8]	30 Day Average	1.5 μg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 μg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 μg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[8]	24 Hour	0.01 ppm (26 μg/m^3)	Gas Chromatography			

* The Nitrogen Dioxide ambient air quality standard was amended on February 22, 2007, to lower the 1-hr standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. These changes become effective after regulatory changes are submitted and approved by the Office of Administrative Law, expected later this year.

See footnotes on next page ...

California Air Resources Board (02/22/07)

. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calender year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety tc protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

California Air Resources Board (02/22/07)

San Diego Air Basin

Table 5.1B-5

County: San Diego

OZONE (ppm)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Peak 1-Hour Indicator	0.188	0.179	0.179	0.179	0.186	0.180	0.172	0.164	0.150	0.147	0.148	0.142	0.132	0.134	0.134	0.132	0.117	0.117	0.117	0.112
Peak 8-Hour Indicator	0.145	0.140	0.136	0.130	0.135	0.139	0.135	0.129	0.122	0.118	0.121	0.117	0.113	0.114	0.112	0.112	0.101	0.103	0.101	0.098
4th High 1-Hr. in 3 Yrs	0.210	0.190	0.180	0.180	0.190	0.190	0.170	0.170	0.154	0.150	0.146	0.141	0.138	0.135	0.135	0.131	0.118	0.118	0.118	0.115
Avg. of 4th High 8-Hr. in 3 Yrs	0.132	0.125	0.124	0.121	0.125	0.129	0.125	0.118	0.112	0.109	0.108	0.104	0.099	0.102	0.099	0.100	0.094	0.095	0.093	0.089
Maximum 1-Hr. Concentration	0.220	0.190	0.290	0.250	0.250	0.200	0.210	0.170	0.187	0.147	0.162	0.138	0.136	0.164	0.124	0.124	0.141	0.121	0.125	0.129
Max. 8-Hr. Concentration	0.168	0.143	0.196	0.156	0.193	0.145	0.145	0.133	0.154	0.121	0.122	0.117	0.112	0.141	0.100	0.106	0.116	0.100	0.103	0.095
Days Above State Standard	148	131	127	160	159	139	106	97	90	79	96	51	43	54	27	24	29	15	24	12
Days Above Nat. 1-Hr. Std.	50	42	40	45	56	39	27	19	14	9	12	2	1	9	0	0	2	0	1	1
Days Above Nat. 8-Hr. Std.	109	81	99	119	122	96	67	66	58	46	48	31	16	35	17	16	17	13	6	8

PM_{10} (ug/m³)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Max. 24-Hr. Concentration (State)				80	90	115	81	67	159	129	121	93	125	57	119	136	106	131	289	138
Max. 24-Hr. Concentration (Nat)				81	90	115	81	67	159	129	121	93	125	89	121	139	107	130	280	137
Annual Average (State)					44.4	32.8	40.7	29.0	45.8	50.7	47.1	30.2	46.6	26.5	50.9	44.5	47.4	52.4	52.6	51.7
Annual Average (Nat)				40.0	43.8	37.6	40.6	35.9	45.9	50.7	46.8	30.0	46.6	42.5	52.2	45.2	49.1	54.9	52.1	51.2
Calc Days Above State 24-Hr Std					114	38	84	12	134	134	122	12	125	6	124	109	129	173	151	175
Calc Days Above Nat 24-Hr Std				0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	0

$PM_{2.5}$ (ug/m³)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Max. 24-Hr. Concentration (State)															54.3	36.3	30.0	53.6	239.2	67.3
Max. 24-Hr. Concentration (Nat)															34.3	36.3	30.0	53.6	239.2	67.3
98th Percentile of 24-Hr Conc.															35.7	32.5	40.8	36.0	46.9	37.4
Annual Average (State)																		15.5	14.4	14.1
Avg. of Qtrly. Means (Nat)															18.0	15.8	17.7	16.0	15.5	14.1

CARBON MONOXIDE (ppm)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Peak 8-Hr. Indicator	10.6	10.2	10.4	10.2	10.3	10.2	10.0	8.6	7.8	7.7	7.3	7.3	6.3	6.3	5.6	5.3				
Max. 1-Hr. Concentration	17.0	16.0	14.0	17.0	17.0	18.0	14.0	14.0	11.4	11.0	9.9	12.4	9.3	10.2	9.9	9.3				
Max. 8-Hr. Concentration	13.0	10.4	9.4	10.3	10.5	9.1	7.9	7.9	7.5	7.5	6.3	7.1	5.4	4.8	6.0	5.9				
Days Above State 8-Hr. Std.	5	2	1	5	6	1	0	0	0	0	0	0	0	0	0	0				
Days Above Nat. 8-Hr. Std.	3	1	0	2	5	0	0	0	0	0	0	0	0	0	0	0				

NITROGEN DIOXIDE (ppm)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Peak 1-Hr. Indicator	0.193	0.193	0.203	0.215	0.233	0.210	0.189	0.169	0.155	0.145	0.129	0.129	0.126	0.116	0.122	0.117	0.126	0.122	0.130	0.119
Max. 1-Hr. Concentration	0.210	0.220	0.260	0.280	0.230	0.180	0.160	0.190	0.130	0.157	0.140	0.124	0.142	0.132	0.172	0.117	0.148	0.126	0.148	0.125
Max. Annual Average	0.032	0.030	0.032	0.035	0.031	0.029	0.029	0.027	0.023	0.024	0.026	0.022	0.024	0.023	0.026	0.024	0.022	0.022	0.021	0.023

SULFUR DIOXIDE (ppm)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Peak 1-Hr. Indicator	0.07	0.06	0.06	0.07	0.07	0.07	0.06	0.08	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.03
Max. Annual Average	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Max. 24-Hr. Concentration	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.02

Table 5.1B-6

Ozone

Number of Days Exceeding Federal 8-Hour Ozone Standard
San Diego County 2001-2005

Station	Number of Days Exceeding Federal 8-Hour Standard Concentration > 8.5 pphm					Maximum 8-Hour Concentration (pphm)					Date of Maximum 8-Hour Concentration				
	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01
Chula Vista	0	1	0	0	0	8	9	6	7	8	4/6	5/3	7/10	5/12	6/9
El Cajon	0	0	0	0	1	7	8	7	8	9	5/13	4/25	9/21	9/22	5/8
Kearny Mesa	0	2	0	1	1	7	9	8	9	9	5/12	5/2	10/19	9/21	9/30
Del Mar	0	3	0	0	0	7	10	8	8	8	4/17	10/8	10/17	9/21	5/22
Escondido	0	2	0	0	1	8	9	8	8	10	4/16	4/27	9/21	9/22	9/30
Alpine	5	2	6	12	15	9	9	10	10	12	5/14	10/9	5/21	6/6	5/8
Downtown SD (12th)	0	0	0	0	0	6	7	6	7	7	4/17	9/5	4/9	9/21	6/9
Downtown SD (Beardsley)	0					6					9/17				
Camp Pendleton	0	2	0	0	1	7	10	8	7	10	4/17	10/8	10/8	5/12	9/29
Otay Mesa	0	0	0	1	0	7	8	8	9	7	10/6	4/27	5/21	9/1	9/30
Basinwide	5	8	6	13	17	9	10	10	10	12	5/14	10/8	5/21	6/6	5/8

► Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

Table 5.1B-7

Ozone

Number of Days Exceeding Federal and State 1-Hour Ozone Standards
San Diego County 2001-2005

Station	Number of Days Exceeding Federal 1-Hour Standard Concentration > 12 pphm					Number of Days Exceeding State 1-Hour Standard Concentration > 9 pphm					Maximum 1-Hour Concentration (pphm)					Date of Maximum 1-Hour Concentration				
	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01
Chula Vista	0	0	0	0	0	0	1	0	1	2	9	10	8	12	10	10/10	5/3	10/28	9/1	9/30
El Cajon	0	0	0	0	0	0	1	1	2	3	9	10	10	10	12	4/15	10/9	9/21	8/9	5/8
Kearny Mesa	0	0	0	0	1	0	6	2	3	9	8	11	11	11	14	4/15	5/2	10/19	9/21	9/30
Del Mar	0	1	0	0	0	0	3	0	1	0	8	13	9	10	9	8/25	10/8	10/17	9/21	9/30
Escondido	0	0	0	0	1	1	2	3	2	4	10	10	11	10	14	9/3	4/27	9/21	9/1	9/30
Alpine	0	0	1	0	1	13	5	17	13	22	11	11	13	12	14	7/13	5/31	9/21	6/6	5/8
Downtown SD (12th)	0	0	0	0	0	0	0	0	0	1	7	9	8	9	10	5/12	9/5	4/9	9/21	9/30
Downtown SD (Beardsley)	0					0					7					8/25				
Camp Pendleton	0	0	0	0	0	0	4	4	0	2	9	11	10	9	11	8/25	5/3	10/16	5/12	9/29
Otay Mesa	0	0	0	0	0	2	1	1	2	0	11	10	10	11	9	10/6	4/27	10/13	9/1	9/30
Basinwide	0	1	1	0	2	16	12	23	15	29	11	13	13	12	14	7/13	10/8	9/21	6/6	9/30

▶ Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

Table 5.1B-8

Carbon Monoxide

Maximum 1-Hour and 8-Hour Average Concentrations
San Diego County 2001-2005

Station	Maximum 1-Hour Concentration in ppm Federal Standard 35 ppm State Standard 20 ppm					Date of Maximum 1-Hour Concentration					Maximum 8-Hour Concentration in ppm Federal Standard 9 ppm State Standard 9 ppm					Date of Maximum 8-Hour Concentration				
	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01
Chula Vista	2.8	3.9	6.9	4.3	5.6	11/23	2/12	10/27	2/13	12/20	2.1	2.5	5.4	2.6	4.7	11/23	1/10	10/28	2/27	12/20
Escondido	5.9	5.3	12.7	8.5	8.5	1/20	12/11	10/28	1/21	2/5	3.1	3.6	10.6	3.9	5.1	1/20	12/11	10/28	1/21	1/5
★ **Escondido** (without fire data)			8.9					2/7					3.9					1/17		
SD *curbside* (Union)	5.3	6.3	8.0	8.2	6.0	1/19	1/14	1/25	2/7	1/3	3.9	3.8	5.1	3.6	4.8	1/14	1/1	1/26	2/23	12/7
Downtown SD (12th)	6.4	4.9	5.0	5.0	7.0	4/18	8/10	1/15	1/7	2/23	4.7	4.0	3.9	3.5	4.9	4/16	1/11	12/19	2/23	2/24
Downtown SD (Beardsley)	4.5					12/21					3.1					12/20				
Otay Mesa	7.9	6.9	7.0	8.4	6.2	12/6	12/14	10/18	1/11	1/19	3.7	4.1	4.9	4.7	3.9	12/6	12/14	10/27	1/11	12/6

▶ Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

★ In October 2003, wildfires caused unusually high levels of carbon monoxide

Table 5.1B-9

Nitrogen Dioxide

Annual Average and Maximum 1-Hour Concentration
San Diego County 2001-2005

Station	Annual Average Federal Standard .053 ppm					Maximum 1-Hour Concentration (ppm) State Standard > .25 ppm					Date of Maximum 1-Hour Concentration				
	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01
Chula Vista	.016	.016	.018	.018	.017	.071	.072	.102	.093	.071	11/15	5/2	10/20	11/6	10/16
El Cajon	.019	.019	.020	.020	.022	.079	.075	.130	.085	.078	11/23	1/13	10/28	11/6	10/15
Kearny Mesa	.017	.017	.018	.019	.019	.076	.085	.084	.080	.095	10/14	1/10	10/28	2/26	3/19
Escondido	.016	.018	.020	.021	.020	.076	.080	.135	.084	.088	10/13	10/8	10/28	2/27	11/20
Alpine	.011	.011	.014	.013	.014	.061	.063	.071	.068	.067	11/23	3/18	12/5	1/8	11/21
Downtown SD (12th)	.020	.020	.021	.022	.020	.091	.094	.111	.102	.098	1/13	5/3	10/21	11/20	1/3
Downtown SD (Beardsley)	.023					.100					11/15				
Camp Pendleton	.012	.012	.012	.013	.013	.077	.099	.095	.109	.092	1/14	1/13	1/15	2/21	2/3
Otay Mesa	.024	.023	.020	.021	.021	.109	.125	.148	.126	.148	9/6	9/1	10/18	10/8	9/27

► Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

Table 5.1B-10

Particulate Matter (PM_{10})

San Diego County 2001-2005

Station	Annual Arithmetic Mean Federal Standard 50 micrograms/m³ State Standard 20 micrograms/m³					Maximum 24-Hour Sample* Federal Standard 150 micrograms/m³ State Standard 50 micrograms/m³						Date of Maximum 24-Hour Sample					
	05	04	03	02	01	05	04	03★	03 without fire data	02	01	05	04	03★	03 without fire data	02	01
Chula Vista	27	26	27	27	28	52	44	75	65	50	64	10/7	1/16	11/23	12/5	12/4	1/1
El Cajon	28	30	34	35	37	48	55	230	66	61	84	12/12	3/22	11/23	12/5	6/19	1/1
Kearny Mesa	22	25	29	24	26	44	44	280	49	47	40	10/13	4/29	11/23	11/29	12/4	10/16
Escondido	24	27	33	27	31	42	57	179	58	51	74	10/13	1/10	10/29	12/31	9/5	1/1
Downtown SD (12th)	28	33	37	35	31	76	68	139	60	85	66	1/10	12/17	11/23	12/5	12/4	1/1
Downtown SD (Beardsley)	37					77						9/1					
Otay Mesa	58	51	53	55	49	155	137	130	130	130	107	10/13	12/15	12/5	12/5	11/28	9/28

► Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

★ In October 2003, firestorms caused unusually high levels of particulate matter.

* Concentrations are averaged over a 24-hour period.

Table 5.1B-11

Particulate Matter ($PM_{2.5}$)

San Diego County 2001-2005

Station	Annual Average Federal Standard 15 micrograms/m³ State Standard 12 micrograms/m³					Maximum 24-Hour Sample* Federal Standard 65 micrograms/m						Date of Maximum 24-Hour Sample					
	05	04	03	02	01	05	04	03★	03 without fire data	02	01	05	04	03★	03 without fire data	02	01
Chula Vista	12	12	14	14	14	34	33	239	41	41	41	11/6	3/16	10/27	12/5	1/2	1/1
El Cajon	11	13	12	15	18	41	44	–	33	40	47	10/21	1/1	1/1	1/1	1/1	11/6
Kearny Mesa	10	11	12	13	14	29	29	170	30	37	38	3/11	3/19	10/27	1/12	1/2	11/6
Escondido	12	14	14	16	18	43	67	69	38	54	60	1/1	1/1	10/27	12/31	1/1	1/1
Downtown SD (12th)	11	14	15	16	17	32	43	170	51	47	54	1/22	1/9	10/27	1/23	11/3	1/1
Downtown SD (Beardsley)	16					44						11/15					

▶ Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

★ In October 2003, firestorms caused unusually high levels of particulate matter

— There was an equipment malfunction at the El Cajon monitoring station during the fires

* Concentrations are averaged over a 24-hour period

Table 5.1B-12

Sulfur Dioxide

Annual Average and Maximum 1-Hour & 3-Hour Concentrations
San Diego County 2001-2005

Station	Annual Average in pphm Federal Standard 3 pphm					Maximum 24-Hour Concentration in pphm Federal Standard 14 pphm State Standard 5 pphm					Maximum 3-Hour Concentration in pphm Federal Standard 50 pphm					Maximum 1-Hour Concentration in pphm State Standard 25 pphm				
	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01	05	04	03	02	01
Chula Vista	0.3	0.3	0.4	0.4	0.3	0.5	1.5	0.9	1.2	1.4	0.9	2.1	2.1	2.8	3.6	1.6	4.2	3.0	4.4	4.9
Downtown SD (12th)	0.2	0.4	0.4	0.3	0.3	0.6	0.9	0.8	0.7	1.0	1.9	2.0	1.9	1.5	3.6	4.0	4.2	4.0	2.8	5.2
Downtown SD (Beardsley)	0.3					0.9					2.6					3.6				
Otay Mesa	0.5	0.6	0.3	0.4	0.4	1.3	1.4	1.1	0.9	1.1	3.1	2.8	1.8	1.6	3.9	4.0	4.5	2.5	2.0	6.0

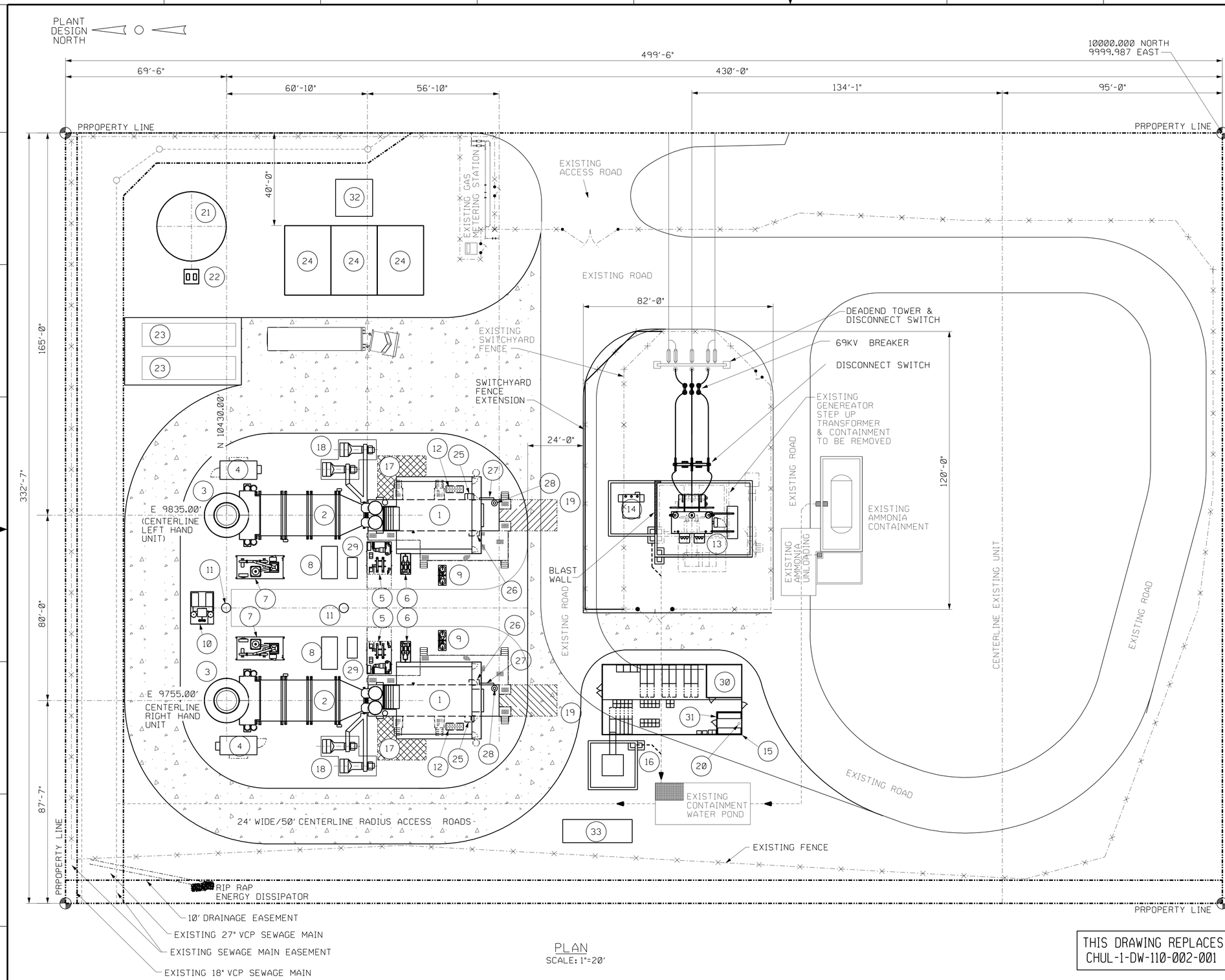
▶ Downtown San Diego monitoring station moved July 14, 2005, from 12th Avenue to Beardsley Street

TABLE 5.1B-13

MMC/ChulaVista - Site Coordinates - Initial Numbers from TCAD Drawing

		TCAD Coor(m)			Orient to North		Ht(m)	UTM Coors(m) NAD27	
Stk1		**20.4070**	**45.2360**		45.2522	-20.4138	24.384	494577.2	3605891.0
	80								
Stk2		**20.3952**	**20.8718**		20.8880	-20.4020	24.384	494552.8	3605891.0
	80								
EG Stack		69.1466	3.6975		3.7137	-69.1534	4.572	494535.6	3605842.3
	15								
CtlBldg		**69.4688**	**25.9040**		25.9202	-69.4756	4.877	494557.8	3605842.0
	16	69.4688	**16.0479**		16.0641	-69.4756		494548.0	3605842.0
		88.4703	16.0479		16.0641	-88.4771		494548.0	3605823.0
		88.4703	25.9040		25.9202	-88.4771		494557.8	3605823.0
		69.4688	25.9040		25.9202	-69.4756		494557.8	3605842.0
Diesel Gen		**64.2634**	**5.5255**		5.5417	-64.2702	3.048	494537.5	3605847.2
	10	64.2634	**1.8694**		1.8856	-64.2702		494533.8	3605847.2
		74.0297	1.8694		1.8856	-74.0365		494533.8	3605837.4
		74.0297	5.5255		5.5417	-74.0365		494537.5	3605837.4
		64.2634	5.5255		5.5417	-64.2702		494537.5	3605847.2
SNCR1		**22.0607**	**48.4395**		48.4557	-22.0675	9.449	494580.4	3605889.4
	31	22.0607	**41.9907**		42.0069	-22.0675		494573.9	3605889.4
		35.6207	41.9907		42.0069	-35.6275		494573.9	3605875.8
		35.6207	48.4395		48.4557	-35.6275		494580.4	3605875.8
		22.0607	48.4395		48.4557	-22.0675		494580.4	3605889.4
SNCR2		22.0607	**24.0626**		24.0788	-22.0675	9.449	494556.0	3605889.4
	31	22.0607	**17.6178**		17.6340	-22.0675		494549.5	3605889.4
		35.6207	17.6178		17.6340	-35.6275		494549.5	3605875.8
		35.6207	24.0626		24.0788	-35.6275		494556.0	3605875.8
		22.0607	24.0626		24.0788	-22.0675		494556.0	3605889.4
AirIn1		**42.4246**	**50.6276**		50.6438	-42.4314	10.973	494582.6	3605869.0
	36	42.4246	**39.8155**		39.8317	-42.4314		494571.7	3605869.0
		52.9535	39.8155		39.8317	-52.9603		494571.7	3605858.5
		52.9535	50.6276		50.6438	-52.9603		494582.6	3605858.5
		42.4246	50.6276		50.6438	-42.4314		494582.6	3605869.0
AirIn2		42.4246	**26.2177**		26.2339	-42.4314	10.973	494558.1	3605869.0
	36	42.4246	**15.5000**		15.5162	-42.4314		494547.4	3605869.0
		52.9535	15.5000		15.5162	-52.9603		494547.4	3605858.5
		52.9535	26.2177		26.2339	-52.9603		494558.1	3605858.5
		42.4246	26.2177		26.2339	-42.4314		494558.1	3605869.0
Turb1		35.6207	**47.6059**		47.6221	-35.6275	4.267	494579.5	3605875.8
	14	35.6207	**42.8372**		42.8534	-35.6275		494574.8	3605875.8
		56.5890	42.8372		42.8534	-56.5958		494574.8	3605854.9
		56.5890	47.6059		47.6221	-56.5958		494579.5	3605854.9
		35.6207	47.6059		47.6221	-35.6275		494579.5	3605875.8
Turb2		35.6207	**23.2904**		23.3066	-35.6275	4.267	494555.2	3605875.8
	14	35.6207	**18.4745**		18.4907	-35.6275		494550.4	3605875.8
		56.5890	18.4745		18.4907	-56.5958		494550.4	3605854.9
		56.5890	23.2904		23.3066	-56.5958		494555.2	3605854.9
		35.6207	23.2904		23.3066	-35.6275		494555.2	3605875.8
WtrTank		19.9199	83.2142	0	83.2304	-19.9267	7.315	494615.1	3605891.5

24	19.3650	85.2853	**30**	85.3015	-19.3718	494617.2	3605892.1
15.7778	17.8489	86.8014	**60**	86.8176	-17.8557	494618.7	3605893.6
83.2142	15.7778	87.3563	**90**	87.3725	-15.7846	494619.3	3605895.7
4.1421	13.7068	86.8014	**120**	86.8176	-13.7136	494618.7	3605897.7
	12.1906	85.2853	**150**	85.3015	-12.1974	494617.2	3605899.3
	11.6357	83.2142	**180**	83.2304	-11.6425	494615.1	3605899.8
	12.1906	81.1432	**210**	81.1594	-12.1974	494613.1	3605899.3
	13.7068	79.6270	**240**	79.6432	-13.7136	494611.6	3605897.7
	15.7778	79.0721	**270**	79.0883	-15.7846	494611.0	3605895.7
	17.8489	79.6270	**300**	79.6432	-17.8557	494611.6	3605893.6
	19.3650	81.1432	**330**	81.1594	-19.3718	494613.1	3605892.1
	19.9199	83.2142	**360**	83.2304	-19.9267	494615.1	3605891.5
PropBdy	**145.1129**	**83.9838**		84.0000	-145.1197	494615.9	3605766.3
	117.4735	83.9838		84.0000	-117.4803	494615.9	3605794.0
	95.6556	**84.9753**		84.9915	-95.6624	494616.9	3605815.8
	89.8246	**82.8270**		82.8432	-89.8314	494614.8	3605821.6
	55.6318	82.8270		82.8432	-55.6386	494614.8	3605855.8
	55.6318	**95.0272**		95.0434	-55.6386	494627.0	3605855.8
	0.0036	95.0272		95.0434	-0.0104	494627.0	3605911.4
	-0.0068	**-0.0162**		0.0000	0.0000	**494531.9**	**3605911.5**
	44.0500	**1.8400**		1.8562	-44.0568	494533.8	3605867.4
	125.0977	**-2.6400**		-2.6238	-125.1045	494529.3	3605786.3
	135.8107	**0.2612**		0.2774	-135.8175	494532.2	3605775.6
	148.0865	**32.8346**		32.8508	-148.0933	494564.8	3605763.4
	150.0695	**48.3682**		48.3844	-150.0763	494580.3	3605761.4
	150.0695	**77.5279**		77.5441	-150.0763	494609.5	3605761.4
	145.1129	83.9838		84.0000	-145.1197	494615.9	3605766.3



PLAN
SCALE: 1"=20'

ITEM	DESCRIPTION
1	GAS TURBINE GENERATOR
2	SCR CATALYST
3	EXHAUST STACK
4	CEMS STATION
5	AUXILIARY SKID
6	SPRINT/SPRAY MIST COOLER SKID
7	AMMONIA DELIVERY SKID
8	GAS TURBINE LUBE OIL FIN FAN COOLER
9	FINAL GAS FUEL FILTER
10	AIR COMPRESSOR SKID
11	DRAIN SUMP
12	CO2 BOTTLES
13	STEP-UP TRANSFORMER & CONTAINMENT
14	AUX TRANSFORMER & CONTAINMENT
15	ELECTRICAL / CONTROL BUILDING
16	480V TRANSFORMER & CONTAINMENT
17	TURBINE REMOVAL/MAINTENANCE PAD AREA
18	TEMPERING AIR FANS
19	MAINTENANCE AND ROTOR PULL SPACE
20	PORTABLE EYEWASH STATION
21	DEMINERALIZED WATER STORAGE TANK
22	DEMINERALIZED WATER FORWARDING PUMPS
23	DEMINERALIZED WATER TRAILERS
24	GAS COMPRESSORS
25	NEUTRAL CUBICLE
26	LINESIDE CUBICLE
27	MAIN GEN TERMINAL BOX
28	GEN AIR/OIL SEPERATOR
29	WATER INJECTION SKID
30	CONTROL ROOM
31	BATTERY ROOM
32	FUEL GAS RECYCLE COOLER
33	BLACK START DIESEL GENERATOR

THIS DRAWING REPLACES CHUL-1-DW-110-002-001

20 0 20 40 60
SCALE IN FEET

PRELIMINARY STATUS	DATE	REPRESENTS GENERAL DESIGN CONCEPTS BASED ON ASSUMPTIONS. REVIEWED NOT CHECKED.
LDE J. STANLEY	11/21/06	
APPROVED STATUS	DATE	REPRESENTS REVIEWED AND APPROVED DESIGN. ANY PORTION MARKED "HOLD" RETAINS PRELIMINARY STATUS.
LDE		

ORIGINATING PERSONNEL	PROFESSIONAL ENGINEER'S SEAL
DRAWN BY: MLH	
CHECKED BY	
LEAD DESIGNER: R.W. MESSNER	
ENGINEER/TECH SPECIALIST	
PROJECT ENGINEERING MANAGER	
PROJECT MANAGER: S.A. BLUE	

Zero Harm — Leadership, No Incidents, Safe Behavior

ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF PE: ____ STATE: ____ LIC. NO.: ____ DATE: ____

WorleyParsons resources & energy

CLIENT/PROJECT TITLE
MCC ENERGY
CHULA VISTA
ENERGY EFFICIENCY UPGRADE PROJECT

GENERAL ARRANGEMENT

SITE PLAN

SCALE: 1" = 20'-0
DRAWING SIZE: ARCH D (24" x 36")
WORLEYPARSONS DWG. NO.: CHUL-1-DW-111-002-001
REV: A

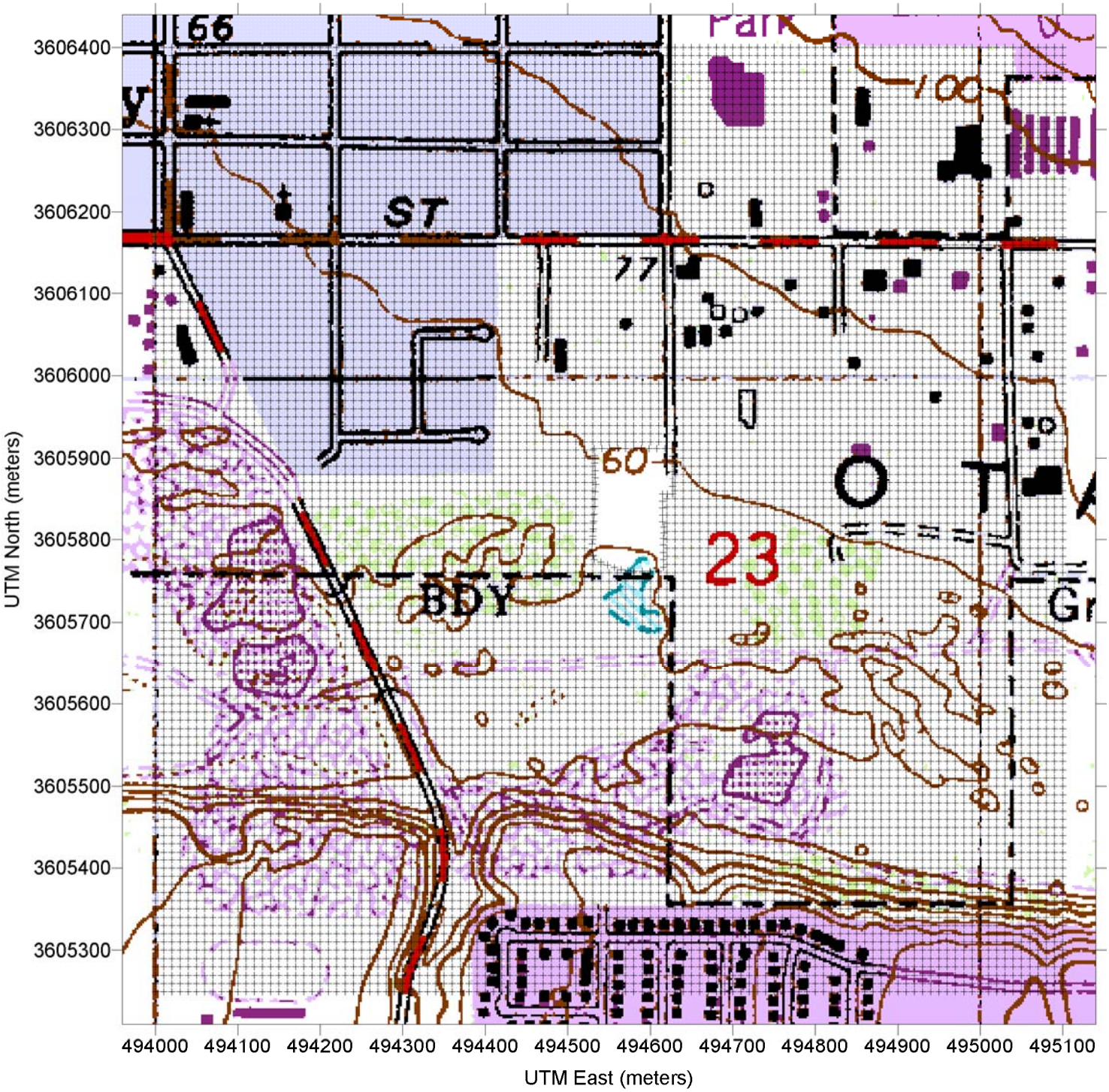
REV	DATE	DRAWN	CHECKED	LEAD DESIGNER	ENGINEER/TECH. SPEC.	LEAD DISC ENGINEER	PROJ ENGR MANAGER	PROJECT MANAGER
A	11/21/06	TWB		RWM		JS		SAB

ISSUED FOR REVIEW. UPDATED AS PER CLIENT COMMENTS

FAC | PIPING | I & C | ELECT | MECH | CIVIL | STRUC

825002:

MMC-Chula Vista Project
10-meter Downwash + Fenceline Recs



0 175 350
Scale: 1" = 175 meters

7.5' Imperial Beach USGS Map Shown
UTM Coordinates in NAD27

Figure 5.1B-3

Coarse and Fine Receptor Grids

MMC-Chula Vista Project Site
Buildings/Fenceline/Nearby Recs

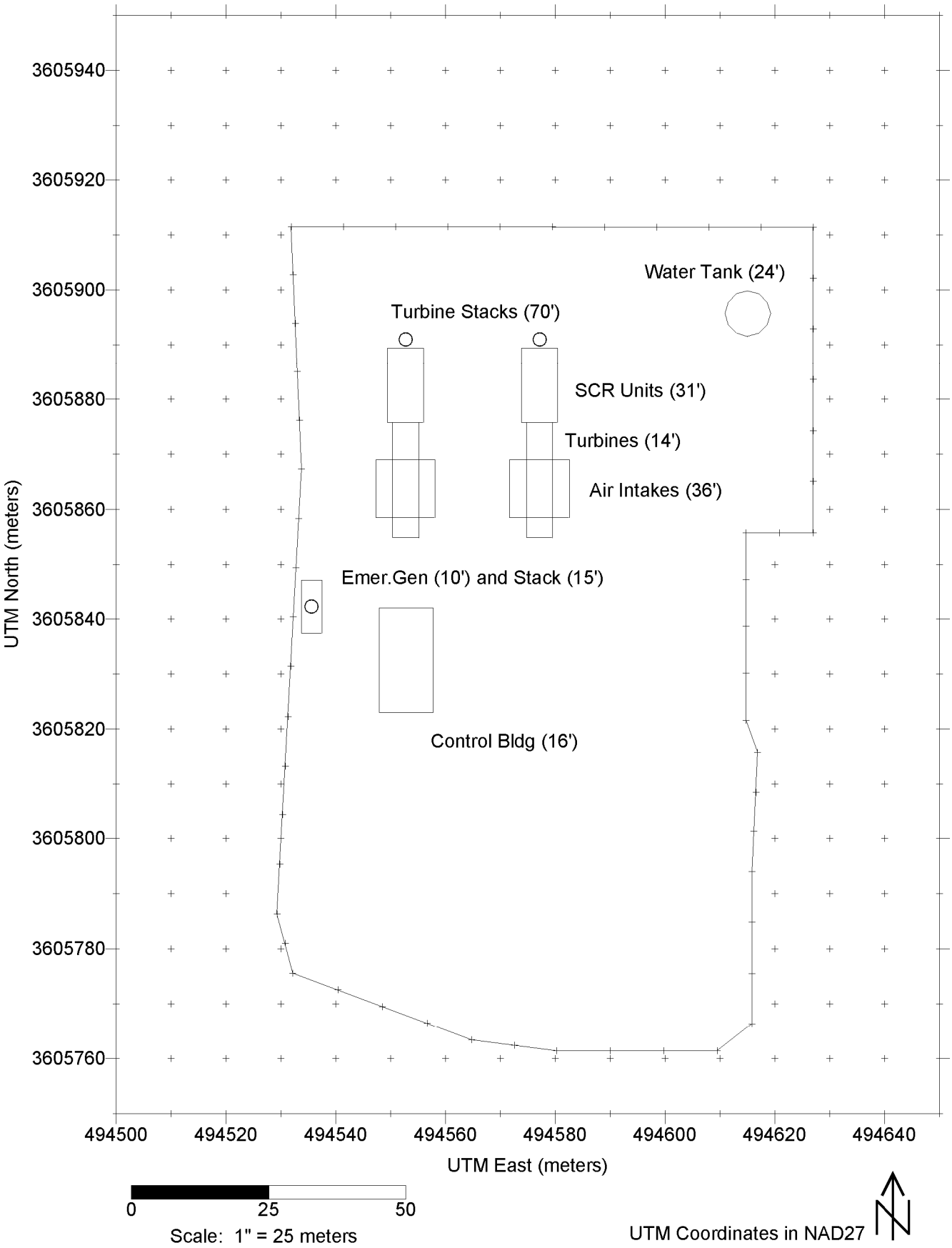
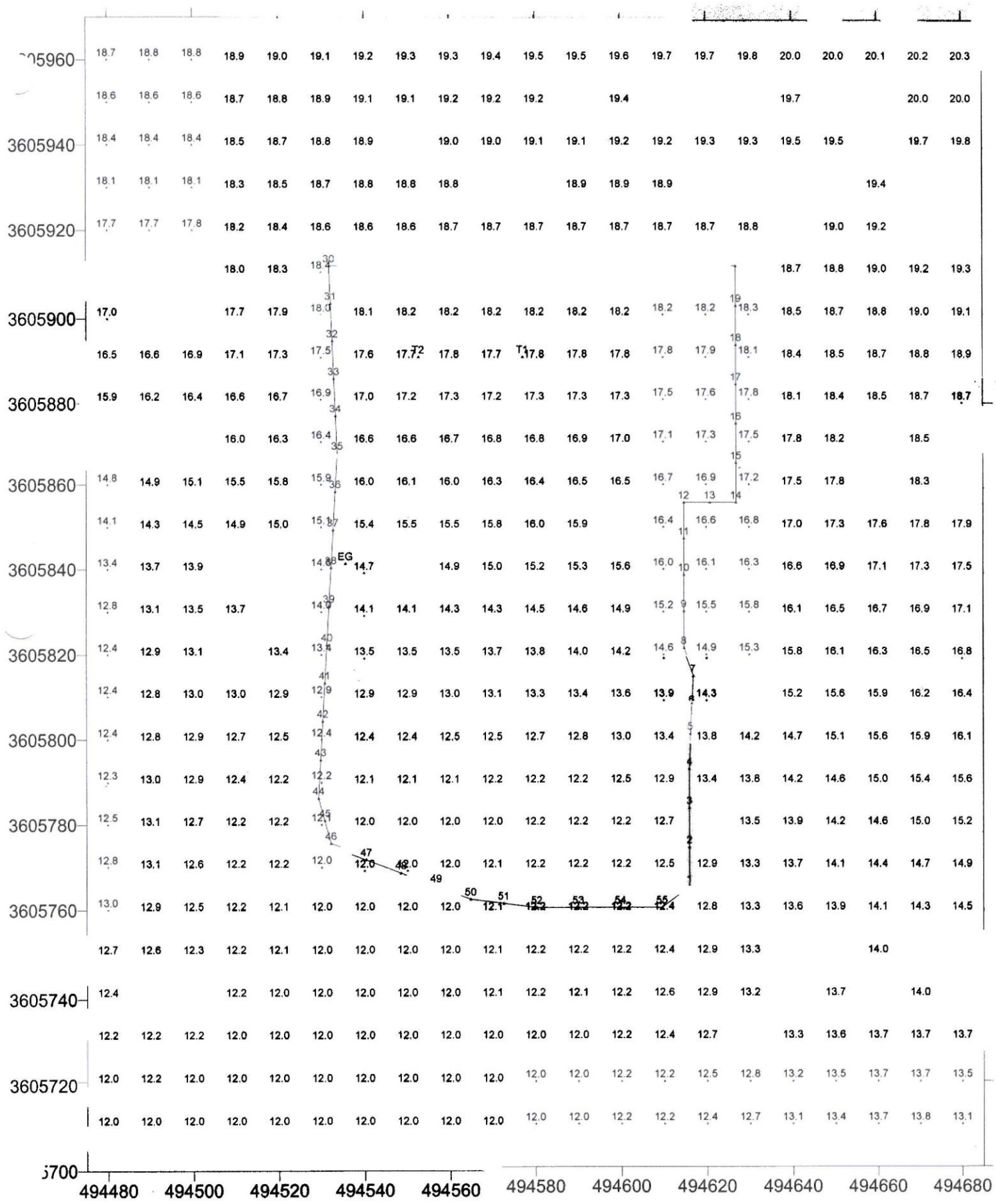


Figure 5.1B-5



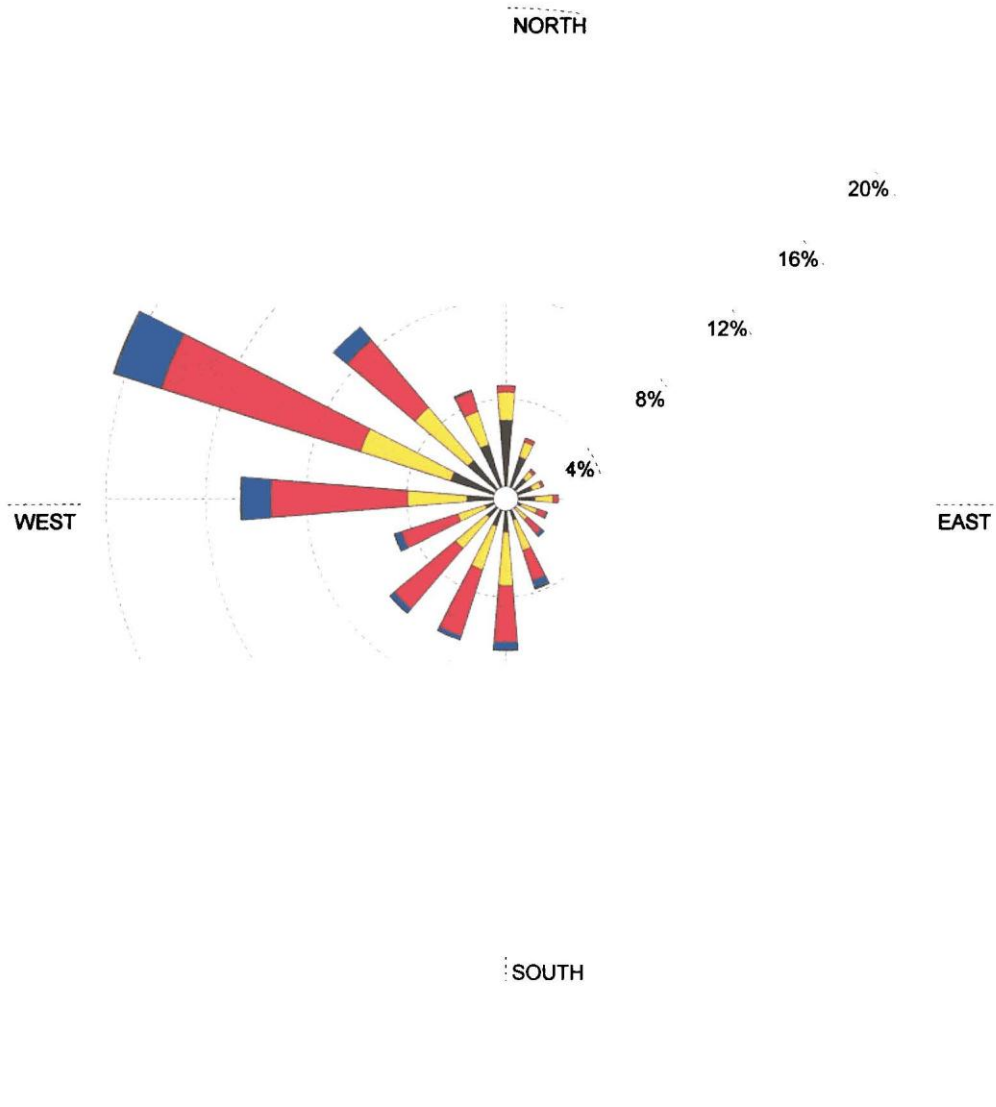
Facility Boundary Grid

WIND ROSE PLOT:

Station #23188 - SAN DIEGO/LINDBERGH FIELD, CA

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	1996-1998 **Jan 1 - Dec 31** **00:00 - 23:00**	MODELER:	**Figure 5.1B-6**
	CALM WINDS: **16.22%**	TOTAL COUNT: **26304 hrs.**	
	AVG. WIND SPEED: **2.87 m/s**	DATE: **1/22/2007**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Figure 5.1B-6a
San Diego Lindbergh Field
Fall Quarter (1996-1998)

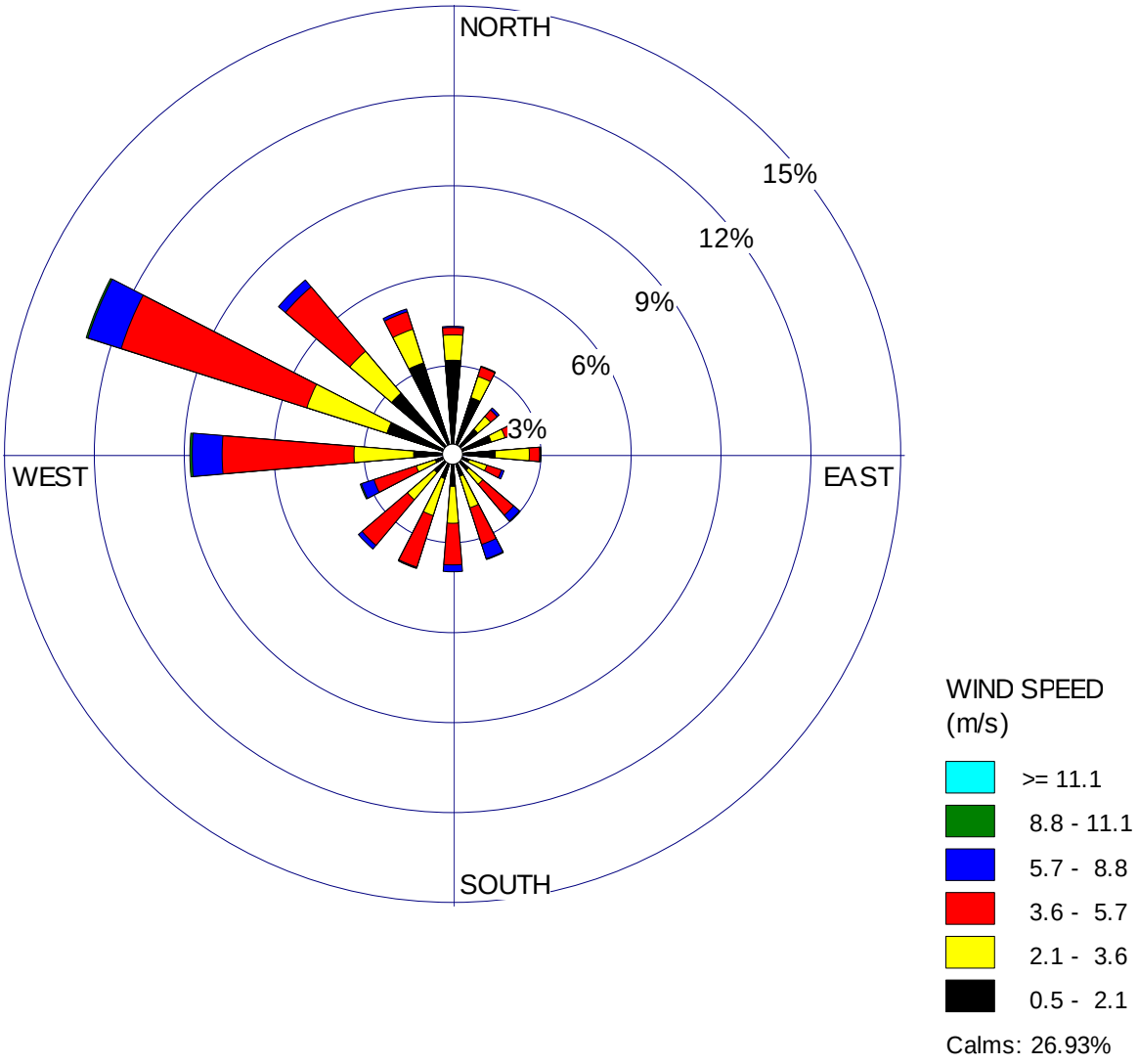


Figure 5.1B-6b
San Diego Lindbergh Field
Winter Quarter (1996-1998)

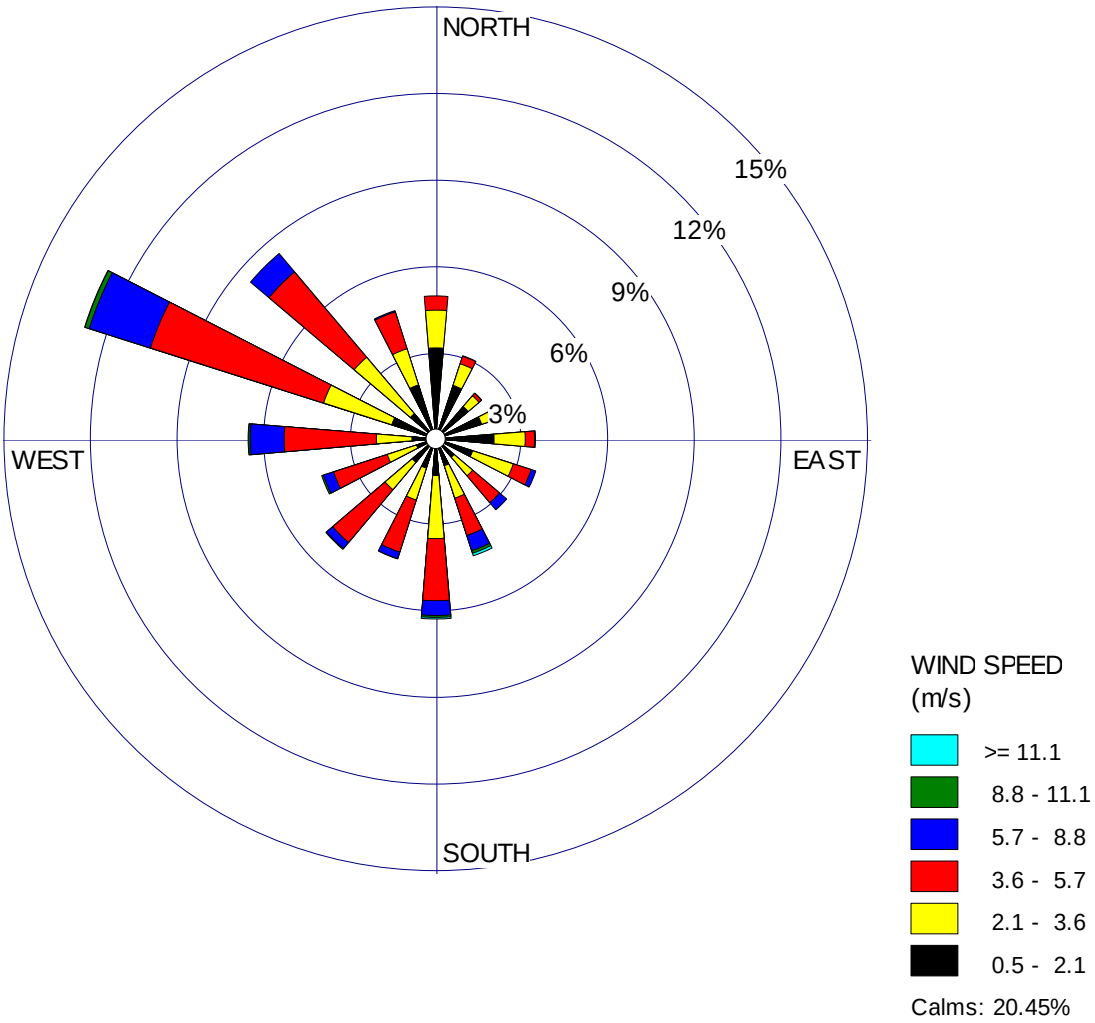


Figure 5.1B-6c
San Diego Lindbergh Field
Spring Quarter (1996-1998)

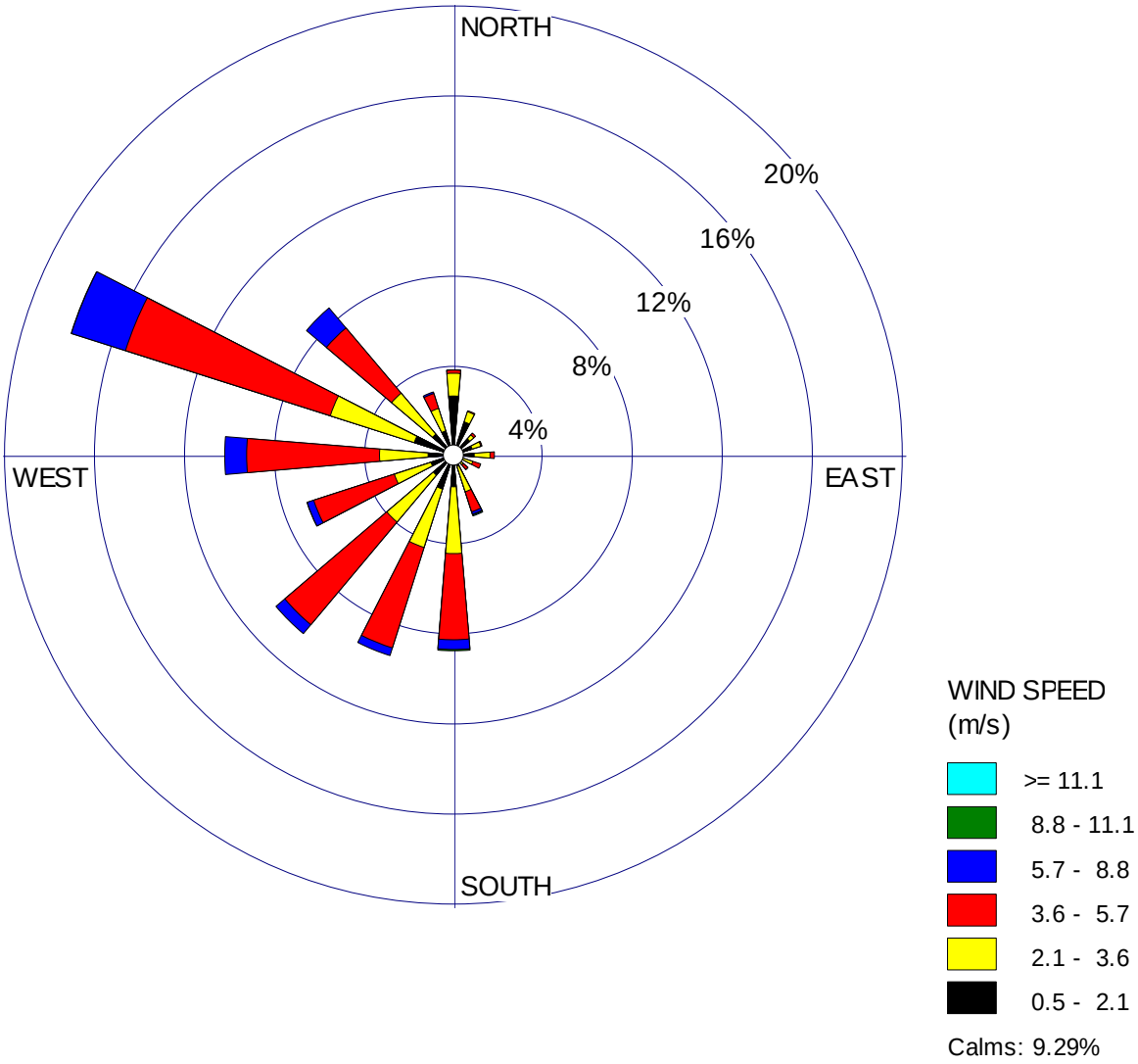


Figure 5.1B-6d
San Diego Lindbergh Field
Summer Quarter (1996-1998)

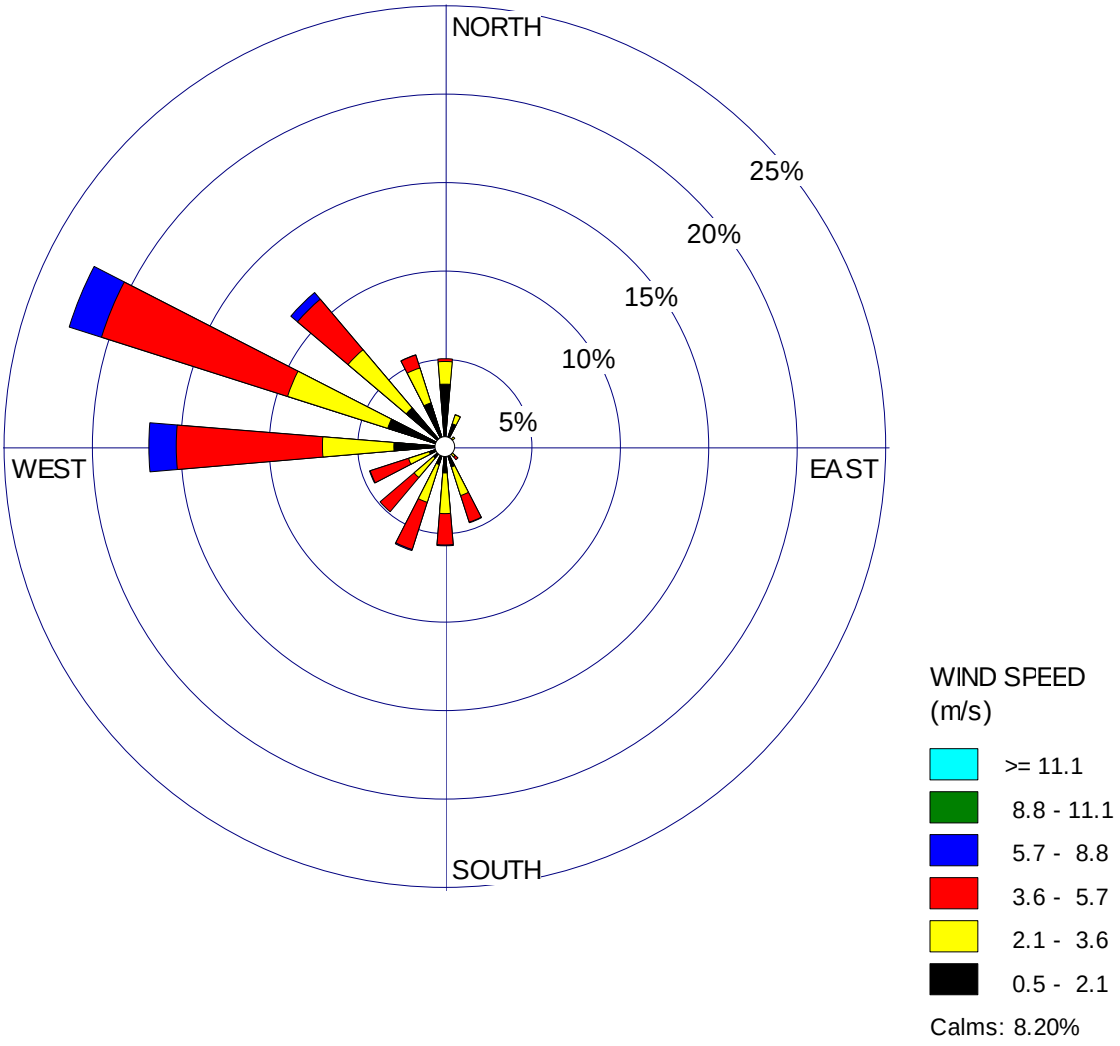
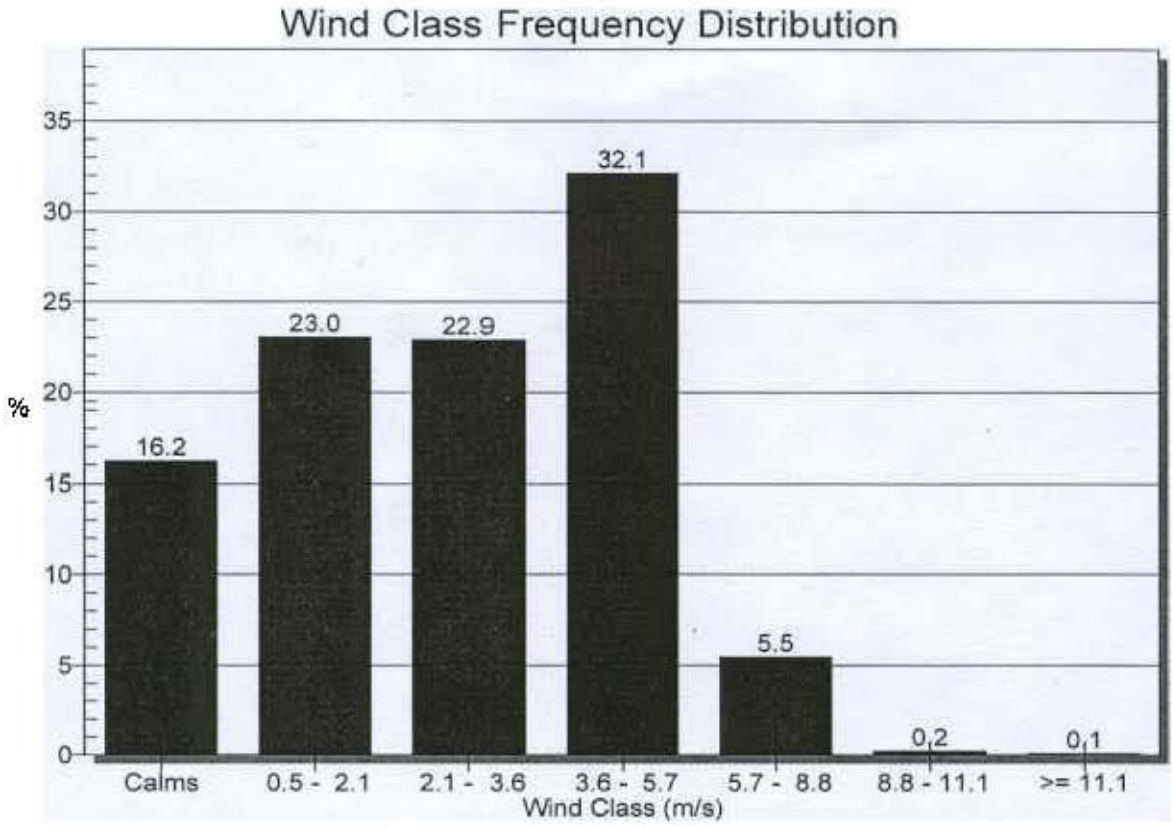
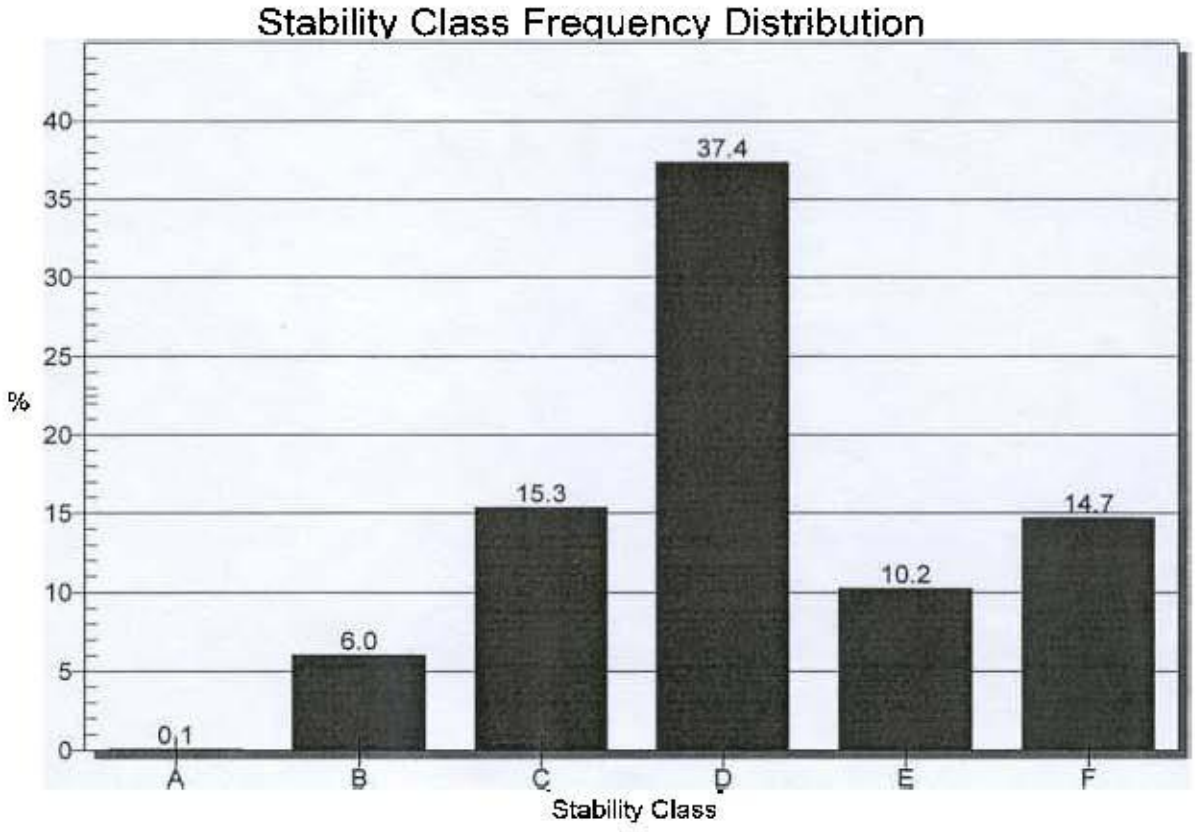


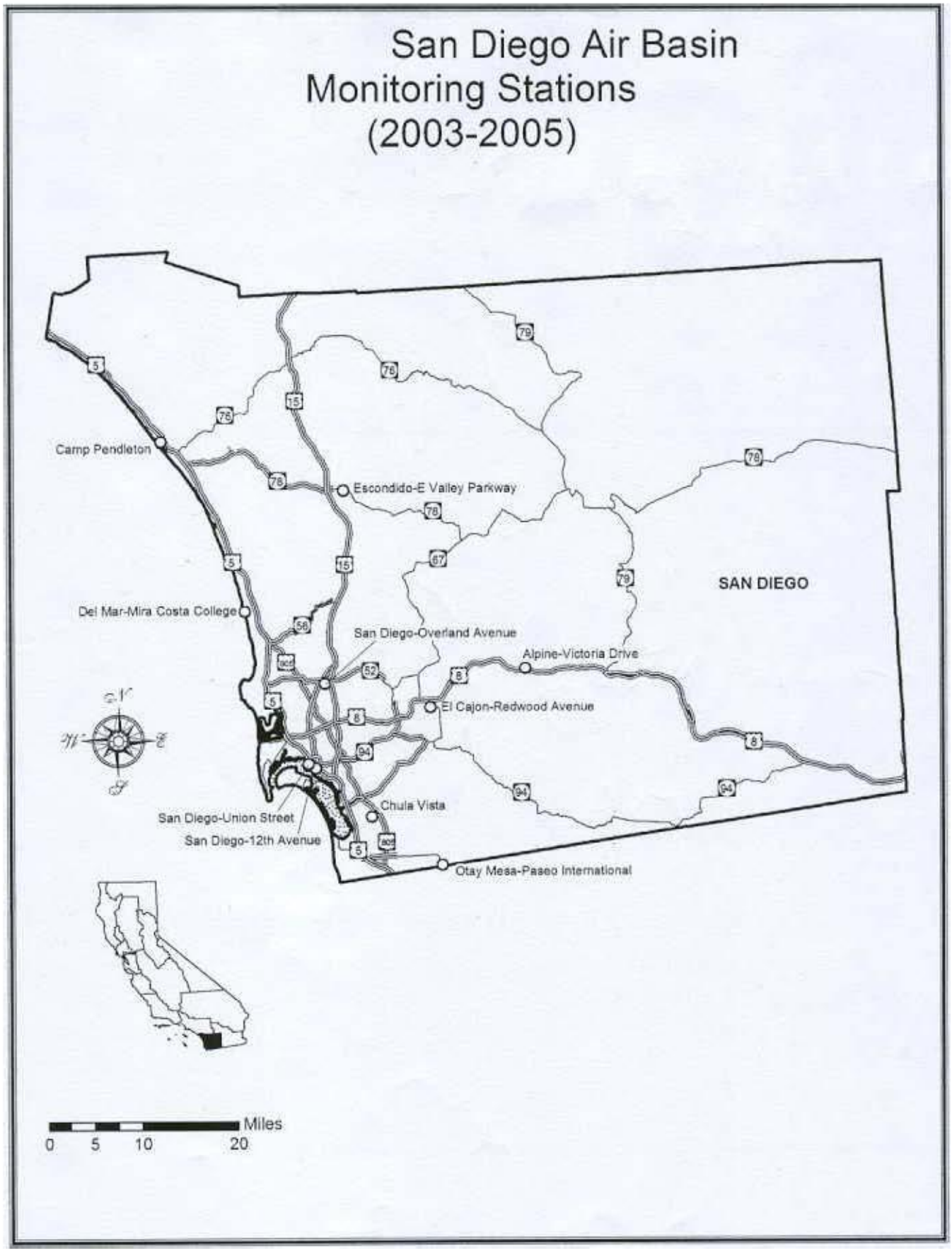
Figure 5.1B-7





WRPLOT View - Lakes Environmental Software

Figure 5.1B-8


San Diego Air Basin
Monitoring Stations
(2003-2005)
Camp Pendleton
Escondido-E Valley Parkway
Del Mar-Mira Costa College
San Diego-Overland Avenue
Alpine-Victoria Drive
El Cajon-Redwood Avenue
Chula Vista
San Diego-Union Street
San Diego-12th Avenue
Otay Mesa-Paseo International
SAN DIEGO
Miles
0 5 10 20