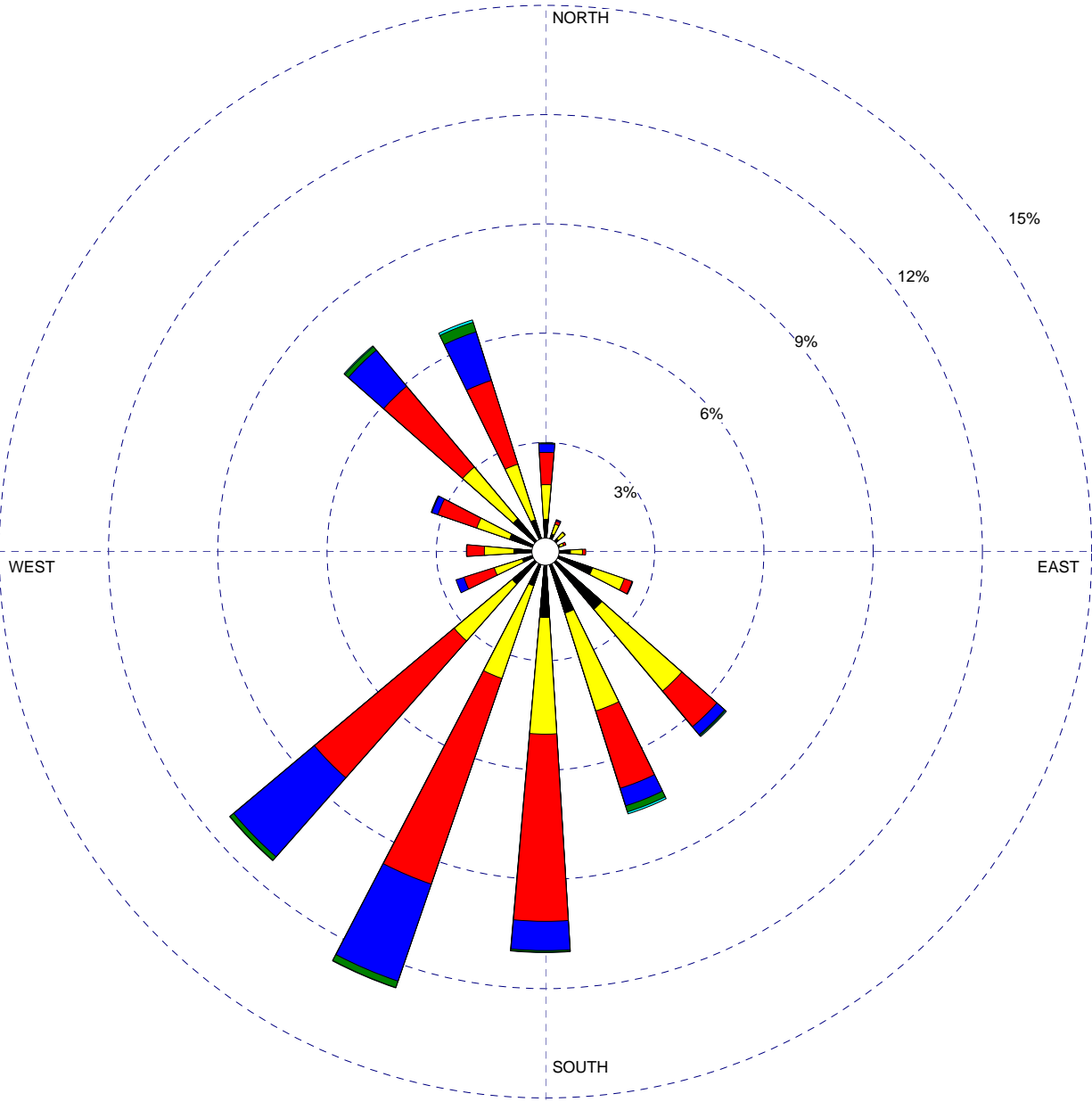


Wind and Climate Information

WIND ROSE PLOT:
Downtown Natomas Airport LRT

DISPLAY:
**Wind Speed
 Direction (blowing from)**



WIND SPEED
 (Knots)

- >= 22
- 17 - 21
- 11 - 17
- 7 - 11
- 4 - 7
- 1 - 4

DATA PERIOD:
**1985
 Jan 1 - Dec 31
 00:00 - 23:00**

COMPANY NAME:

COMMENTS:

TOTAL COUNT:

8760 hours

MODELER:

CALM WINDS:

20.02%

DATE:

12/2/2008

AVG. WIND SPEED:

7.50 Knots

PROJECT NO.:

2007-078

SACRAMENTO FAA ARPT, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(047630) SACRAMENTO FAA ARPT															
From Year=1941 To Year=2006															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	53.2	37.9	45.6	70	24/1976	20	05/1950	51.4	1986	36.9	1949	0.0	0.0	7.1	0.0
February	59.8	41.0	50.4	76	19/1964	23	07/1989	55.8	1963	45.3	1949	0.0	0.0	2.3	0.0
March	64.5	43.1	53.8	88	26/1988	26	05/1971	59.8	2004	49.6	1948	0.0	0.0	0.5	0.0
April	71.5	45.9	58.7	95	30/1996	31	09/1999	63.8	1959	49.6	1967	0.4	0.0	0.0	0.0
May	79.9	50.7	65.3	105	28/1984	34	03/1950	71.9	1997	58.7	1998	5.5	0.0	0.0	0.0
June	87.2	55.3	71.2	115	15/1961	41	07/1950	76.4	1961	65.3	1952	11.6	0.0	0.0	0.0
July	92.8	58.1	75.5	114	13/1972	48	08/1983	80.4	1988	71.8	1987	21.6	0.0	0.0	0.0
August	91.5	57.8	74.6	110	10/1996	48	05/1950	79.0	1967	70.1	1954	19.1	0.0	0.0	0.0
September	87.6	55.8	71.7	108	01/1950	43	18/1965	77.3	1975	66.2	1986	12.6	0.0	0.0	0.0
October	77.9	50.2	64.0	104	02/2001	35	30/1948	68.8	1991	60.9	1956	2.6	0.0	0.0	0.0
November	63.6	42.7	53.1	87	01/1960	26	21/1941	60.2	1981	46.9	1982	0.0	0.0	1.4	0.0
December	53.7	38.3	46.0	72	28/1967	18	22/1990	51.1	1996	40.5	1972	0.0	0.0	6.2	0.0
Annual	73.6	48.1	60.8	115	19610615	18	19901222	63.4	1997	57.7	1982	73.4	0.0	17.6	0.0
Winter	55.6	39.1	47.3	76	19640219	18	19901222	51.2	1996	41.4	1949	0.0	0.0	15.5	0.0
Spring	72.0	46.5	59.3	105	19840528	26	19710305	64.0	1997	55.2	1967	6.0	0.0	0.6	0.0
Summer	90.5	57.1	73.8	115	19610615	41	19500607	77.6	1961	70.0	1982	52.3	0.0	0.0	0.0
Fall	76.3	49.6	63.0	108	19500901	26	19411121	66.5	1991	58.7	1982	15.2	0.0	1.4	0.0

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:
 Months with 5 or more missing days are not considered
 Years with 1 or more missing months are not considered
 Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

SACRAMENTO FAA ARPT, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(047630) SACRAMENTO FAA ARPT														
From Year=1941 To Year=2006														
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.	>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	3.64	9.14	1978	0.16	1984	3.05	21/1967	10	6	2	1	0.0	0.0	1942
February	3.08	9.95	1998	0.15	1964	2.63	17/1986	9	6	2	1	0.0	2.0	1976
March	2.41	7.12	1982	0.05	1994	1.85	31/1982	9	6	2	0	0.0	0.0	1943
April	1.12	4.21	1983	0.00	1949	2.17	02/1958	5	3	1	0	0.0	0.0	1949
May	0.50	2.98	1998	0.00	1959	1.67	20/2002	3	1	0	0	0.0	0.0	1949
June	0.16	1.26	1993	0.00	1949	1.14	04/1993	1	1	0	0	0.0	0.0	1949
July	0.03	0.79	1974	0.00	1948	0.77	08/1974	0	0	0	0	0.0	0.0	1948
August	0.07	0.65	1976	0.00	1948	0.65	11/1965	0	0	0	0	0.0	0.0	1948
September	0.27	2.78	1989	0.00	1952	1.79	16/1989	1	1	0	0	0.0	0.0	1948
October	0.88	7.51	1962	0.00	1952	3.77	13/1962	3	2	1	0	0.0	0.0	1948
November	2.11	7.41	1970	0.00	1995	2.42	28/1970	7	4	2	0	0.0	0.0	1943
December	3.03	12.64	1955	0.00	1989	2.87	19/1955	9	6	2	1	0.0	0.0	1941
Annual	17.31	33.44	1983	6.25	1976	3.77	19621013	58	35	12	3	0.0	2.0	1976
Winter	9.76	20.65	1956	1.71	1948	3.05	19670121	28	18	7	2	0.0	2.0	1976
Spring	4.03	11.21	1983	0.74	1959	2.17	19580402	17	10	3	0	0.0	0.0	1949
Summer	0.26	1.29	1974	0.00	1951	1.14	19930604	2	1	0	0	0.0	0.0	1949
Fall	3.27	10.16	1982	0.00	1995	3.77	19621013	11	7	2	1	0.0	0.0	1948

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:

Months with 5 or more missing days are not considered

Years with 1 or more missing months are not considered

Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

CARB Data

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Sacramento-3801 Airport Road

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Jul 14	0.100	Sep 13	0.105	Jul 5	0.119
Second High:	Aug 8	0.100	Jul 9	0.104	Jun 18	0.100
Third High:	Sep 30	0.096	Oct 12	0.098	Jul 19	0.092
Fourth High:	Nov 21	0.096	Sep 11	0.097	Aug 30	0.090
# Days Above State Standard:	4		5		2	
California Designation Value:	0.10		0.10		0.12	
Expected Peak Day Conc.:	0.098		0.100		*	
# Days Above Nat'l Standard:	0		0		0	
National Design Value:	0.097		0.100		0.104	
Year Coverage:	73		81		68	
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All concentrations are expressed in parts per million.The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.State exceedances are shown in **yellow**. Exceedances of the revoked national 1-hour standard are shown in *orange*.

An exceedance is not necessarily a violation.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

* There was insufficient (or no) data available to determine the value.

Switch:	8-Hour Ozone	PM10	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
Go to:	Data Statistics Home Page			Top 4 Summaries Start Page			

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Sacramento-3801 Airport Road

[FAQs](#)

Year:	2005		2006		2007	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Jul 14	0.087	Sep 12	0.086	Jul 5	0.102
Second High:	Jul 15	0.082	Jul 20	0.079	Jun 18	0.077
Third High:	Jul 13	0.081	Jul 9	0.078	Jul 19	0.077
Fourth High:	Sep 30	0.075	Jul 8	0.077	Aug 30	0.077
California:						
First High:	Jul 14	0.088	Sep 12	0.087	Jul 5	0.102
Second High:	Jul 15	0.083	Jul 20	0.080	Jun 18	0.078
Third High:	Jul 13	0.082	Jul 9	0.078	Jul 19	0.078
Fourth High:	Aug 5	0.075	Jul 8	0.077	Aug 30	0.077
National:						
# Days Above '08 Nat'l Std.:	3		5		4	
'08 Nat'l Std. Design Value:	0.073		0.073		0.076	
National Year Coverage:	74		86		71	
California:						
# Days Above State Standard:	8		13		8	
California Designation Value:	0.088		0.088		0.102	
Expected Peak Day Conc.:	*		*		*	
California Year Coverage:	73		81		68	
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All averages are expressed in parts per million.

National exceedances are shown in orange . State exceedances are shown in yellow .

An exceedance is not necessarily a violation.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	PM10	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Air Resources Board



Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages

Sacramento-3801 Airport Road

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Nov 20	2.97	Dec 3	3.15	Jul 23	5.58
Second High:	Nov 18	2.41	Dec 6	2.56	Jul 23	4.10
Third High:	Dec 6	2.40	Dec 7	2.38	Jul 23	2.46
Fourth High:	Nov 19	2.39	Oct 27	2.28	Jan 9	2.44
California:						
First High:	Nov 20	2.97	Dec 3	3.15	Jul 23	5.58
Second High:	Nov 17	2.41	Dec 5	2.56	Jan 9	2.44
Third High:	Dec 6	2.40	Dec 7	2.38	Jan 7	2.17
Fourth High:	Nov 19	2.39	Oct 26	2.28	Jan 24	2.10
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Year Coverage:		93		96		91
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All averages are expressed in parts per million.

State exceedances are shown in yellow . National exceedances are shown in orange .

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	8-Hour Ozone	PM10	PM2.5	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Air Resources Board


Highest 4 Daily PM10 Measurements

Sacramento-3801 Airport Road

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Feb 3	56.0	Oct 26	81.0	Feb 5	94.0
Second High:	Oct 13	44.0	Nov 1	71.0	Sep 27	56.0
Third High:	Dec 6	44.0	Oct 20	54.0	Jan 24	53.0
Fourth High:	Dec 12	39.0	Dec 31	50.0	Nov 26	50.0
California:						
First High:	Sep 30	99.8	Oct 26	84.0	Feb 5	98.0
Second High:	Aug 30	89.0	Nov 1	74.0	Jan 24	57.0
Third High:	Oct 14	74.0	Oct 20	56.0	Sep 27	56.0
Fourth High:	Sep 23	69.1	Dec 31	54.0	Nov 26	54.0
Measured:						
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		25		4		6
Estimated:						
3-Yr Avg # Days Above Nat'l Std:		*		0.0		0.0
# Days Above Nat'l Standard:		0.0		0.0		0.0
# Days Above State Standard:		6.4		*		36.4
State 3-Yr Maximum Average:		21		21		23
State Annual Average:		20.8		*		23.0
National 3-Year Average:		20		22		23
National Annual Average:		20.4		25.7		22.4
Year Coverage:		93		89		99
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All concentrations are expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect.

Statistics related to the revoked standard are shown in *italics* or *italics*.

State exceedances are shown in **yellow**. National exceedances are shown in **orange**.

An exceedance is not necessarily a violation.

Statistics may include data that are related to an [exceptional event](#).

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.

State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on *local* conditions (except for sites in the

South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions).

National statistics are based on *standard* conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	8-Hour Ozone	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Sacramento-T Street

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Jul 14	0.108	Jul 23	0.106	Jul 5	0.109
Second High:	Sep 30	0.102	Sep 1	0.103	Jun 18	0.095
Third High:	Jul 13	0.097	Sep 12	0.103	Sep 6	0.088
Fourth High:	Jul 15	0.096	Jun 23	0.099	Aug 30	0.087
# Days Above State Standard:	4		6		2	
California Designation Value:	0.10		0.10		0.11	
Expected Peak Day Conc.:	0.102		0.103		0.105	
# Days Above Nat'l Standard:	0		0		0	
National Design Value:	0.102		0.103		0.103	
Year Coverage:	99		96		97	
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All concentrations are expressed in parts per million.The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.State exceedances are shown in **yellow**. Exceedances of the revoked national 1-hour standard are shown in *orange*.

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

* There was insufficient (or no) data available to determine the value.

Switch:	8-Hour Ozone	PM10	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Air Resources Board



Highest 4 Daily Maximum 8-Hour Ozone Averages

Sacramento-T Street

[FAQs](#)

Year:	2005		2006		2007	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Jul 14	0.087	Sep 12	0.090	Jul 5	0.089
Second High:	Jul 13	0.083	Jul 23	0.086	Aug 28	0.078
Third High:	Jul 15	0.083	Sep 1	0.085	Aug 30	0.075
Fourth High:	Jul 26	0.077	Jul 20	0.084	Jun 18	0.073
California:						
First High:	Jul 14	0.087	Sep 12	0.090	Jul 5	0.090
Second High:	Jul 13	0.084	Jul 23	0.087	Aug 28	0.078
Third High:	Jul 15	0.083	Sep 1	0.086	Aug 30	0.076
Fourth High:	Jul 26	0.077	Jul 20	0.085	Jun 18	0.073
National:						
# Days Above '08 Nat'l Std.:	4		6		2	
'08 Nat'l Std. Design Value:	0.073		0.076		0.078	
National Year Coverage:	99		96		97	
California:						
# Days Above State Standard:	5		14		7	
California Designation Value:	0.084		0.087		0.090	
Expected Peak Day Conc.:	0.083		0.088		0.090	
California Year Coverage:	99		96		97	
Go Backward One Year		New Top 4 Summary		Go Forward One Year		

Notes: All averages are expressed in parts per million.

National exceedances are shown in orange . State exceedances are shown in yellow .

An exceedance is not necessarily a violation.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	PM10	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Sacramento-T Street

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Nov 22	3.64				
Second High:	Nov 1	3.58				
Third High:	Nov 18	3.53				
Fourth High:	Nov 23	3.33				
California:						
First High:	Nov 21	3.64				
Second High:	Oct 31	3.62				
Third High:	Nov 18	3.53				
Fourth High:	Nov 22	3.33				
# Days Above Nat'l Standard:		0				
# Days Above State Standard:		0				
Year Coverage:		97				
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All averages are expressed in parts per million.State exceedances are shown in **yellow**. National exceedances are shown in **orange**.

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.

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Switch:	Hourly Ozone	8-Hour Ozone	PM10	PM2.5	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Air Resources Board


Highest 4 Daily PM10 Measurements

Sacramento-T Street

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Nov 18	53.0	Sep 20	109.0	Dec 14	53.4
Second High:	Dec 12	52.0	Oct 26	68.0	Jan 24	53.0
Third High:	Feb 3	50.0	Nov 1	60.0	Feb 5	53.0
Fourth High:	Nov 24	50.0	Dec 7	58.0	Nov 26	52.0
California:						
First High:	Nov 18	55.0	Sep 20	111.0	Dec 14	57.4
Second High:	Dec 12	55.0	Oct 26	71.0	Jan 24	56.0
Third High:	Feb 3	52.0	Nov 1	62.0	Feb 5	55.0
Fourth High:	Nov 24	52.0	Dec 7	62.0	Nov 26	55.0
Measured:						
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		4		8		5
Estimated:						
3-Yr Avg # Days Above Nat'l Std:		*		*		0.0
# Days Above Nat'l Standard:		0.0		0.0		0.0
# Days Above State Standard:		24.4		*		30.3
State 3-Yr Maximum Average:		23		21		21
State Annual Average:		21.5		*		20.5
National 3-Year Average:		21		22		22
National Annual Average:		20.9		26.4		19.9
Year Coverage:		95		98		100
	Go Backward One Year		New Top 4 Summary		Go Forward One Year	

Notes: All concentrations are expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect.

Statistics related to the revoked standard are shown in *italics* or *italics*.

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South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions).

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3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	8-Hour Ozone	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
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Air Resources Board



Highest 4 Daily PM2.5 Measurements

Sacramento-T Street

[FAQs](#)

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Dec 11	59.0	May 10	54.0	Jan 2	58.0
Second High:	Dec 14	56.0	Dec 31	46.0	Jan 23	47.0
Third High:	Dec 13	53.0	Dec 25	43.0	Jan 22	46.0
Fourth High:	Feb 3	50.0	Dec 20	42.0	Jan 9	45.0
California:						
First High:	Dec 11	63.8	May 10	54.0	Jan 2	58.0
Second High:	Dec 14	57.7	Dec 25	48.8	Apr 27	55.8
Third High:	Dec 13	56.3	Dec 20	46.7	Jan 22	49.0
Fourth High:	Feb 4	55.1	Dec 31	46.0	Jan 9	48.6
Estimated Days > '06 Nat'l 24-Hr Std:	10.7		*		27.6	
Measured Days > '06 Nat'l 24-Hr Std:	10		14		19	
'06 Nat'l 24-Hr Std Design Value:	41		41		43	
'06 Nat'l 24-Hr Std 98th Percentile:	47.0		39.0		43.0	
National Annual Std Design Value:	*		*		*	
National Annual Average:	10.9		*		11.9	
State Ann'l Std Designation Value:	13		13		13	
State Annual Average:	12.5		12.9		*	
Year Coverage:	90		95		88	
Go Backward One Year		New Top 4 Summary		Go Forward One Year		

Notes: All concentrations are expressed in micrograms per cubic meter.
 State exceedances are shown in **yellow**. National exceedances are shown in **orange**.
 An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:
 State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
 State and national statistics may therefore be based on different samplers.
 State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* There was insufficient data available throughout the year to determine the value.

Switch:	Hourly Ozone	8-Hour Ozone	PM10	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide
Go to:	Data Statistics Home Page			Top 4 Summaries Start Page			

EMFAC 2007 & CAL3QHC Output Files

Title : EMFAC 2008 & 2010
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2008/12/03 14:39:06
 Scen Year: 2008 -- All model years in the range 1965 to 2008 selected
 Season : Annual
 Area : Sacramento

Year: 2008 -- Model Years 1965 to 2008 Inclusive -- Annual
 Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average Sacramento County Average
 Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Total Organic Gases Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	4.398	10.541	0.000	0.000	1.201
20	0.223	0.249	0.334	1.363	1.122	3.235	0.332

Pollutant Name: Carbon Monoxide Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	25.558	46.338	0.000	0.000	6.221
20	3.945	4.570	4.955	10.869	9.517	25.403	4.842

Pollutant Name: Oxides of Nitrogen Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	5.892	74.459	0.000	0.000	4.676
20	0.357	0.561	1.081	12.729	11.060	1.206	1.184

Pollutant Name: Carbon Dioxide Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	1091.616	4843.355	0.000	0.000	411.273
20	463.972	567.615	778.241	1679.937	1851.244	151.637	607.240

Pollutant Name: Sulfur Dioxide Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	0.011	0.047	0.000	0.000	0.004
20	0.005	0.006	0.008	0.016	0.018	0.002	0.006

Pollutant Name: PM10 Temperature: 61F Relative Humidity: 50%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	0.066	1.388	0.000	0.000	0.080
20	0.017	0.031	0.032	0.553	0.193	0.034	0.052

Title : BURDEN 2008 & 2010
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2008/11/26 13:03:10
 Scen Year: 2008 -- All model years in the range 1965 to 2008 selected
 Season : Annual
 Area : Sacramento County
 I/M Stat : Enhanced Interim (2005)
 Emissions: Tons Per Day

	Light Duty Passenger Cars			Light Duty Trucks			Medium Duty Trucks			Heavy Duty Trucks			Total HD Trucks	Urban Buses	Motor-cycles	All Vehicles				
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total								
Vehicles	9028.	470126.	1828.	480982.	6840.	298807.	8640.	314287.	1543.	114113.	8883.	124539.	1515.	11037.	12552.	17697.	30248.	363.	33674.	984091.
VMT/1000	118.	14782.	38.	14939.	98.	10100.	242.	10440.	32.	4220.	361.	4613.	13.	259.	272.	1278.	1550.	39.	250.	31831.
Trips	36370.	2965520.	10315.	3012210.	28059.	1890350.	53342.	1971750.	12850.	1242870.	108969.	1364690.	42386.	186932.	229318.	357180.	586499.	1450.	67340.	7003940.
----- Total Organic Gas Emissions -----																				
Run Exh	0.81	1.50	0.01	2.32	0.67	1.22	0.02	1.91	0.28	0.96	0.10	1.34	0.12	0.30	0.42	1.10	1.52	0.04	0.99	8.13
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.01	0.01	0.14	0.15	0.00	0.00	0.18
Start Ex	0.24	2.12	0.00	2.37	0.18	1.44	0.00	1.62	0.11	1.10	0.00	1.21	0.63	0.42	1.04	0.00	1.04	0.00	0.21	6.45
Total Ex	1.05	3.63	0.01	4.69	0.86	2.65	0.02	3.53	0.39	2.09	0.10	2.58	0.75	0.73	1.48	1.24	2.72	0.04	1.20	14.75
Diurnal	0.06	0.48	0.00	0.54	0.05	0.28	0.00	0.32	0.00	0.08	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.08	1.04
Hot Soak	0.13	0.66	0.00	0.79	0.10	0.37	0.00	0.47	0.01	0.15	0.00	0.17	0.02	0.01	0.03	0.00	0.03	0.00	0.04	1.50
Running	0.75	1.91	0.00	2.66	0.37	1.95	0.00	2.32	0.05	1.20	0.00	1.25	0.20	0.14	0.34	0.00	0.34	0.00	0.21	6.79
Resting	0.04	0.24	0.00	0.28	0.03	0.14	0.00	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.54
Total	2.04	6.92	0.01	8.96	1.41	5.40	0.02	6.83	0.46	3.57	0.10	4.12	0.98	0.88	1.86	1.24	3.10	0.04	1.56	24.62
----- Carbon Monoxide Emissions -----																				
Run Exh	9.80	40.86	0.03	50.69	8.01	34.96	0.15	43.13	4.81	17.54	0.43	22.77	3.26	4.83	8.09	4.78	12.87	0.35	11.40	141.22
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.01	0.18	0.01	0.06	0.07	0.47	0.54	0.00	0.00	0.72
Start Ex	1.24	22.05	0.00	23.29	0.96	16.76	0.00	17.71	0.70	12.70	0.00	13.40	5.18	7.02	12.20	0.00	12.20	0.03	0.75	67.39
Total Ex	11.04	62.91	0.03	73.98	8.97	51.72	0.15	60.84	5.51	30.40	0.43	36.35	8.44	11.91	20.36	5.25	25.61	0.39	12.15	209.32
----- Oxides of Nitrogen Emissions -----																				
Run Exh	0.61	4.10	0.06	4.77	0.50	4.69	0.37	5.55	0.24	2.93	1.99	5.16	0.10	1.19	1.29	19.87	21.15	0.47	0.37	37.47
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.98	0.98	0.00	0.00	1.01
Start Ex	0.06	1.46	0.00	1.52	0.04	1.39	0.00	1.43	0.02	1.78	0.00	1.80	0.08	0.72	0.80	0.00	0.80	0.00	0.02	5.59
Total Ex	0.66	5.57	0.06	6.29	0.54	6.08	0.37	6.99	0.26	4.72	2.02	6.99	0.19	1.90	2.09	20.85	22.94	0.47	0.39	44.06
----- Carbon Dioxide Emissions (000) -----																				
Run Exh	0.06	6.01	0.02	6.08	0.05	5.08	0.09	5.22	0.02	3.20	0.21	3.43	0.01	0.19	0.20	2.36	2.56	0.08	0.03	17.40
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.07
Start Ex	0.01	0.24	0.00	0.25	0.01	0.19	0.00	0.19	0.00	0.11	0.00	0.11	0.01	0.01	0.02	0.00	0.02	0.00	0.00	0.57
Total Ex	0.07	6.25	0.02	6.33	0.06	5.27	0.09	5.42	0.03	3.31	0.21	3.54	0.02	0.20	0.22	2.42	2.64	0.08	0.04	18.05
----- PM10 Emissions -----																				
Run Exh	0.00	0.16	0.00	0.17	0.00	0.20	0.01	0.22	0.00	0.09	0.02	0.11	0.00	0.00	0.00	0.68	0.69	0.01	0.01	1.21
Idle Exh	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	0.00	0.02	0.02	0.00	0.00	0.02
Start Ex	0.00	0.02	0.00	0.02	0.00	0.02	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Total Ex	0.00	0.18	0.00	0.19	0.00	0.22	0.01	0.24	0.00	0.10	0.02	0.12	0.00	0.00	0.00	0.70	0.71	0.01	0.01	1.28
TireWear	0.00	0.13	0.00	0.13	0.00	0.09	0.00	0.09	0.00	0.04	0.00	0.05	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.31
BrakeWr	0.00	0.20	0.00	0.21	0.00	0.14	0.00	0.14	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.45
Total	0.01	0.52	0.01	0.53	0.01	0.45	0.02	0.48	0.00	0.20	0.03	0.23	0.00	0.01	0.01	0.77	0.78	0.01	0.01	2.04
Lead	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	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.00	0.06	0.00	0.06	0.00	0.05	0.00	0.05	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.18
----- Fuel Consumption (000 gallons) -----																				
Gasoline	9.42	650.60	0.00	660.03	7.71	548.29	0.00	556.00	3.71	344.42	0.00	348.13	3.55	22.69	26.24	0.00	26.24	1.61	6.20	1598.22
Diesel	0.00	0.00	1.37	1.37	0.00	0.00	8.31	8.31	0.00	0.00	18.71	18.71	0.00	0.00	0.00	217.42	217.42	5.62	0.00	251.43

Title : BURDEN 2008 & 2010
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2008/11/26 13:03:10
 Scen Year : 2010 -- All model years in the range 1966 to 2010 selected
 Season : Annual
 Area : Sacramento County
 I/M Stat : Enhanced Interim (2005)
 Emissions: Tons Per Day

	Light Duty Passenger Cars			Light Duty Trucks			Medium Duty Trucks			Heavy Duty Trucks			Total HD Trucks	Urban Buses	Motor-cycles	All Vehicles				
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total								
Vehicles	6000.	496428.	1519.	503947.	4841.	317155.	7727.	329723.	1234.	120154.	9218.	130607.	1160.	11653.	12813.	18710.	31523.	380.	35335.	1031510.
VMT/1000	76.	15561.	31.	15668.	67.	10536.	203.	10807.	25.	4324.	359.	4708.	10.	262.	272.	1333.	1605.	41.	262.	33091.
Trips	23757.	3121960.	8380.	3154100.	19483.	1997920.	47119.	2064520.	9312.	1306410.	113332.	1429050.	33752.	193086.	226838.	379186.	606024.	1520.	70662.	7325870.
----- Total Organic Gas Emissions -----																				
Run Exh	0.51	1.21	0.01	1.72	0.46	1.02	0.02	1.49	0.22	0.82	0.10	1.14	0.09	0.27	0.36	1.01	1.37	0.04	0.99	6.75
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.01	0.01	0.13	0.14	0.00	0.00	0.17
Start Ex	0.16	1.84	0.00	2.00	0.13	1.30	0.00	1.43	0.08	1.03	0.00	1.10	0.49	0.40	0.89	0.00	0.89	0.00	0.21	5.63
Total Ex	0.67	3.05	0.01	3.72	0.58	2.32	0.02	2.92	0.30	1.88	0.10	2.27	0.58	0.67	1.25	1.14	2.39	0.04	1.20	12.55
Diurnal	0.04	0.45	0.00	0.50	0.03	0.27	0.00	0.31	0.00	0.08	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.97
Hot Soak	0.08	0.68	0.00	0.76	0.07	0.40	0.00	0.47	0.01	0.16	0.00	0.17	0.02	0.01	0.03	0.00	0.03	0.00	0.03	1.47
Running	0.48	1.76	0.00	2.24	0.24	2.00	0.00	2.24	0.03	1.23	0.00	1.27	0.16	0.15	0.31	0.00	0.31	0.00	0.17	6.22
Resting	0.02	0.24	0.00	0.27	0.02	0.15	0.00	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.53
Total	1.30	6.18	0.01	7.49	0.95	5.15	0.02	6.11	0.35	3.40	0.10	3.85	0.76	0.83	1.60	1.14	2.73	0.04	1.52	21.74
----- Carbon Monoxide Emissions -----																				
Run Exh	6.35	35.14	0.02	41.51	5.54	30.76	0.12	36.43	3.76	15.69	0.43	19.88	2.52	4.22	6.73	4.43	11.16	0.36	10.93	120.27
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.01	0.18	0.01	0.06	0.07	0.47	0.54	0.00	0.00	0.72
Start Ex	0.80	19.81	0.00	20.62	0.66	15.53	0.00	16.19	0.52	11.76	0.00	12.27	4.12	6.72	10.83	0.00	10.83	0.04	0.81	60.76
Total Ex	7.15	54.95	0.02	62.12	6.20	46.29	0.12	52.62	4.28	27.62	0.43	32.34	6.64	11.00	17.64	4.90	22.54	0.39	11.74	181.75
----- Oxides of Nitrogen Emissions -----																				
Run Exh	0.40	3.45	0.05	3.90	0.34	4.03	0.32	4.70	0.19	2.58	1.80	4.57	0.08	1.04	1.11	17.59	18.71	0.47	0.37	32.71
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.07
Start Ex	0.04	1.32	0.00	1.36	0.03	1.29	0.00	1.32	0.02	1.81	0.00	1.82	0.07	0.70	0.76	0.00	0.76	0.00	0.02	5.30
Total Ex	0.43	4.78	0.05	5.26	0.38	5.32	0.32	6.02	0.21	4.39	1.82	6.42	0.14	1.73	1.88	18.64	20.52	0.47	0.40	39.08
----- Carbon Dioxide Emissions (000) -----																				
Run Exh	0.04	6.18	0.01	6.24	0.04	5.21	0.08	5.32	0.02	3.24	0.21	3.46	0.01	0.19	0.20	2.46	2.66	0.08	0.04	17.80
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.07
Start Ex	0.01	0.25	0.00	0.26	0.00	0.20	0.00	0.20	0.00	0.12	0.00	0.12	0.01	0.01	0.02	0.00	0.02	0.00	0.00	0.59
Total Ex	0.05	6.43	0.01	6.49	0.04	5.41	0.08	5.53	0.02	3.36	0.21	3.58	0.01	0.20	0.22	2.52	2.74	0.08	0.04	18.46
----- PM10 Emissions -----																				
Run Exh	0.00	0.16	0.00	0.17	0.00	0.21	0.01	0.22	0.00	0.10	0.02	0.12	0.00	0.00	0.00	0.60	0.61	0.01	0.01	1.13
Idle Exh	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	0.00	0.02	0.02	0.00	0.00	0.02
Start Ex	0.00	0.02	0.00	0.02	0.00	0.03	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Total Ex	0.00	0.18	0.00	0.19	0.00	0.23	0.01	0.25	0.00	0.11	0.02	0.13	0.00	0.00	0.00	0.62	0.63	0.01	0.01	1.21
TireWear	0.00	0.14	0.00	0.14	0.00	0.09	0.00	0.10	0.00	0.04	0.00	0.05	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.32
BrakeWr	0.00	0.22	0.00	0.22	0.00	0.15	0.00	0.15	0.00	0.06	0.00	0.07	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.47
Total	0.00	0.54	0.00	0.55	0.00	0.47	0.02	0.49	0.00	0.21	0.03	0.24	0.00	0.01	0.01	0.69	0.70	0.01	0.01	2.00
Lead	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	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.00	0.06	0.00	0.06	0.00	0.05	0.00	0.05	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.18
----- Fuel Consumption (000 gallons) -----																				
Gasoline	6.04	668.30	0.00	674.34	5.26	562.00	0.00	567.25	2.83	348.74	0.00	351.57	2.78	22.90	25.68	0.00	25.68	1.69	6.65	1627.19
Diesel	0.00	0.00	1.10	1.10	0.00	0.00	7.00	7.00	0.00	0.00	18.59	18.59	0.00	0.00	0.00	226.56	226.56	5.82	0.00	259.06

JOB: D:\00Projects\Downtown Natomas\7BpmEX.c1 RUN: 7th & B St - 2008 EX

DATE : 11/26/ 8
 TIME : 15:31:37

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	506.0	.0	506.0	500.0	*	500.	360. AG	497.	4.8	.0	32.0		
2. nbd	*	506.0	500.0	506.0	1000.0	*	500.	360. AG	290.	4.8	.0	32.0		
3. nbq	*	506.0	488.0	506.0	452.7	*	35.	180. AG	4.	100.0	.0	12.0	.44	1.8
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	194.	4.8	.0	44.0		
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	223.	4.8	.0	32.0		
6. sbq	*	488.0	524.0	488.0	530.9	*	7.	360. AG	7.	100.0	.0	24.0	.09	.4
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	47.	4.8	.0	32.0		
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	266.	4.8	.0	32.0		
9. ebq	*	476.0	494.0	464.7	494.0	*	11.	270. AG	12.	100.0	.0	12.0	.16	.6
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	155.	4.8	.0	44.0		
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	114.	4.8	.0	32.0		
12. wbq	*	512.0	512.0	530.5	512.0	*	19.	90. AG	24.	100.0	.0	24.0	.26	.9

JOB: D:\00Projects\Downtown Natomas\7BpmEX.c1 RUN: 7th & B St - 2008 EX

DATE : 11/26/ 8
 TIME : 15:31:37

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	13	3.0	497	1600	6.22	3	3
6. sbq	*	60	13	3.0	194	1600	6.22	3	3
9. ebq	*	60	44	3.0	47	1600	6.22	3	3
12. wbq	*	60	44	3.0	155	1600	6.22	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	X	Y	Z	*
1. NW	*	466.0	534.0	5.4	*
2. NE	*	522.0	534.0	5.4	*
3. SW	*	466.0	478.0	5.4	*
4. SE	*	522.0	478.0	5.4	*

Concentrations of CO for Project

2008 Existing

Intersection	1-Hour Bckgrnd Conc.	8-Hour Bckgrnd Conc.	Model RESULTS	Parts Per Million	
				1-hour	8-hour
7th & B Street	9	5.6	0.4	10	5.9
7th & F Street	9	5.6	0.3	10	5.8
7th & Richards	9	5.6	0.7	10	6.1
8th & G Street	9	5.6	0.5	10	5.9

2010 Without Project

Intersection	1-Hour Bckgrnd Conc.	8-Hour Bckgrnd Conc.	Model RESULTS	Parts Per Million	
				1-hour	8-hour
7th & B Street	9	5.04	0.4	9	5.3
7th & F Street	9	5.04	0.3	9	5.3
7th & Richards	9	5.04	0.7	9	5.5
8th & G Street	9	5.04	0.5	9	5.4

2010 With Project

Intersection	1-Hour Bckgrnd Conc.	8-Hour Bckgrnd Conc.	Model RESULTS	Parts Per Million	
				1-hour	8-hour
7th & B Street	9	5.04	0.4	9	5.3
7th & F Street	9	5.04	0.3	9	5.3
7th & Richards	9	5.04	0.6	9	5.5
8th & G Street	9	5.04	0.5	9	5.4

State Standard

20 9.0

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.2	.0
30.	.1	.0	.1	.0
40.	.0	.0	.0	.1
50.	.0	.0	.0	.1
60.	.0	.0	.0	.1
70.	.0	.0	.2	.1
80.	.0	.0	.3	.2
90.	.0	.1	.2	.1
100.	.2	.2	.1	.0
110.	.1	.2	.1	.0
120.	.0	.0	.1	.0
130.	.0	.0	.1	.0
140.	.1	.0	.1	.0
150.	.1	.0	.2	.0
160.	.2	.0	.2	.0
170.	.2	.1	.2	.0
180.	.2	.3	.1	.2
190.	.0	.4	.0	.4
200.	.0	.3	.0	.3
210.	.0	.1	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.1	.0	.1
250.	.0	.0	.0	.1
260.	.0	.0	.0	.1
270.	.0	.1	.0	.1
280.	.0	.0	.0	.1
290.	.0	.0	.0	.1
300.	.0	.1	.0	.1
310.	.0	.1	.0	.1
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.2	.0	.3
350.	.0	.3	.0	.4
360.	.1	.1	.1	.2
MAX	.2	.4	.3	.4
DEGR.	10	190	80	190

THE HIGHEST CONCENTRATION OF .40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7BpmEX.cl RUN: 7th & B St - 2010 NP

DATE : 11/26/ 8
 TIME : 15:34:48

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	506.0	.0	506.0	500.0	*	500.	360. AG	515.	4.0	.0	32.0		
2. nbd	*	506.0	500.0	506.0	1000.0	*	500.	360. AG	320.	4.0	.0	32.0		
3. nbq	*	506.0	488.0	506.0	451.4	*	37.	180. AG	4.	100.0	.0	12.0	.46	1.9
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	226.	4.0	.0	44.0		
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	253.	4.0	.0	32.0		
6. sbq	*	488.0	524.0	488.0	532.0	*	8.	360. AG	7.	100.0	.0	24.0	.10	.4
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	54.	4.0	.0	32.0		
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	278.	4.0	.0	32.0		
9. ebq	*	476.0	494.0	463.0	494.0	*	13.	270. AG	12.	100.0	.0	12.0	.18	.7
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	155.	4.0	.0	44.0		
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	99.	4.0	.0	32.0		
12. wbq	*	512.0	512.0	530.5	512.0	*	19.	90. AG	24.	100.0	.0	24.0	.26	.9

JOB: D:\00Projects\Downtown Natomas\7BpmEX.cl RUN: 7th & B St - 2010 NP

DATE : 11/26/ 8
 TIME : 15:34:48

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	13	3.0	515	1600	6.09	3	3
6. sbq	*	60	13	3.0	226	1600	6.09	3	3
9. ebq	*	60	44	3.0	54	1600	6.09	3	3
12. wbq	*	60	44	3.0	155	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	X	Y	Z	*
1. NW	*	466.0	534.0	5.4	*
2. NE	*	522.0	534.0	5.4	*
3. SW	*	466.0	478.0	5.4	*
4. SE	*	522.0	478.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.1	.0
30.	.0	.0	.0	.0
40.	.0	.0	.0	.0
50.	.0	.0	.0	.1
60.	.0	.0	.0	.1
70.	.0	.0	.0	.1
80.	.0	.0	.2	.1
90.	.0	.0	.2	.1
100.	.1	.2	.1	.0
110.	.1	.1	.1	.0
120.	.0	.0	.1	.0
130.	.0	.0	.1	.0
140.	.1	.0	.1	.0
150.	.1	.0	.2	.0
160.	.1	.0	.2	.0
170.	.2	.1	.2	.0
180.	.1	.3	.1	.2
190.	.0	.4	.0	.3
200.	.0	.3	.0	.3
210.	.0	.0	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.0	.0	.1
250.	.0	.0	.0	.1
260.	.0	.0	.0	.1
270.	.0	.0	.0	.1
280.	.0	.0	.0	.1
290.	.0	.0	.0	.1
300.	.0	.0	.0	.1
310.	.0	.1	.0	.1
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.2	.0	.1
350.	.0	.2	.0	.2
360.	.1	.1	.1	.2
MAX	.2	.4	.2	.3
DEGR.	10	190	10	190

THE HIGHEST CONCENTRATION OF .40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7BpmEX.c1 RUN: 7th & B St - 2010 WP

DATE : 11/26/ 8
 TIME : 15:36:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	506.0	.0	506.0	500.0	*	500.	360. AG	502.	4.0	.0	32.0	
2. nbd	*	506.0	500.0	506.0	1000.0	*	500.	360. AG	312.	4.0	.0	32.0	
3. nbq	*	506.0	488.0	506.0	455.1	*	33.	180. AG	3.	100.0	.0	12.0	
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	220.	4.0	.0	44.0	
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	246.	4.0	.0	32.0	
6. sbq	*	488.0	524.0	488.0	531.2	*	7.	360. AG	7.	100.0	.0	24.0	
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	51.	4.0	.0	32.0	
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	271.	4.0	.0	32.0	
9. ebq	*	476.0	494.0	463.5	494.0	*	13.	270. AG	12.	100.0	.0	12.0	
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	151.	4.0	.0	44.0	
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	95.	4.0	.0	32.0	
12. wbq	*	512.0	512.0	530.5	512.0	*	18.	90. AG	25.	100.0	.0	24.0	

PAGE 2

JOB: D:\00Projects\Downtown Natomas\7BpmEX.c1 RUN: 7th & B St - 2010 WP

DATE : 11/26/ 8
 TIME : 15:36:52

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	12	3.0	502	1600	6.09	3	3
6. sbq	*	60	12	3.0	220	1600	6.09	3	3
9. ebq	*	60	45	3.0	51	1600	6.09	3	3
12. wbq	*	60	45	3.0	151	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	466.0	534.0	5.4	*
2. NE	*	522.0	534.0	5.4	*
3. SW	*	466.0	478.0	5.4	*
4. SE	*	522.0	478.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.1	.0
30.	.0	.0	.0	.0
40.	.0	.0	.0	.0
50.	.0	.0	.0	.1
60.	.0	.0	.0	.1
70.	.0	.0	.0	.1
80.	.0	.0	.2	.1
90.	.0	.0	.2	.1
100.	.1	.2	.1	.0
110.	.1	.1	.1	.0
120.	.0	.0	.1	.0
130.	.0	.0	.1	.0
140.	.1	.0	.1	.0
150.	.1	.0	.2	.0
160.	.1	.0	.2	.0
170.	.2	.1	.2	.0
180.	.1	.3	.1	.2
190.	.0	.4	.0	.3
200.	.0	.2	.0	.3
210.	.0	.0	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.0	.0	.1
250.	.0	.0	.0	.1
260.	.0	.0	.0	.1
270.	.0	.0	.0	.1
280.	.0	.0	.0	.1
290.	.0	.0	.0	.1
300.	.0	.0	.0	.1
310.	.0	.1	.0	.1
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.1	.0	.1
350.	.0	.2	.0	.3
360.	.1	.1	.1	.2
MAX	.2	.4	.2	.3
DEGR.	10	190	10	190

THE HIGHEST CONCENTRATION OF .40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7FpmEX.c1 RUN: 7th & F St - 2008 EX

DATE : 11/26/ 8
 TIME : 15:52: 2

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	512.0	.0	512.0	500.0	*	500.	360. AG	348.	4.8	.0	44.0	
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	490.	4.8	.0	32.0	
3. nbq	*	512.0	488.0	512.0	469.0	*	19.	180. AG	11.	100.0	.0	24.0	
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	222.	4.8	.0	32.0	
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	267.	4.8	.0	32.0	
6. sbq	*	488.0	524.0	488.0	548.3	*	24.	360. AG	6.	100.0	.0	12.0	
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	89.	4.8	.0	32.0	
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	120.	4.8	.0	32.0	
9. ebq	*	476.0	494.0	458.0	494.0	*	18.	270. AG	10.	100.0	.0	12.0	
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	222.	4.8	.0	44.0	
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	4.	4.8	.0	32.0	
12. wbq	*	524.0	512.0	546.5	512.0	*	22.	90. AG	21.	100.0	.0	24.0	

PAGE 2

JOB: D:\00Projects\Downtown Natomas\7FpmEX.c1 RUN: 7th & F St - 2008 EX

DATE : 11/26/ 8
 TIME : 15:52: 2

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	20	3.0	348	1600	6.22	3	3
6. sbq	*	60	20	3.0	222	1600	6.22	3	3
9. ebq	*	60	37	3.0	89	1600	6.22	3	3
12. wbq	*	60	37	3.0	222	1600	6.22	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	466.0	534.0	5.4	*
2. ne	*	534.0	534.0	5.4	*
3. sw	*	466.0	478.0	5.4	*
4. se	*	534.0	478.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.2	.0
30.	.2	.0	.1	.0
40.	.1	.0	.1	.0
50.	.1	.0	.1	.0
60.	.1	.0	.0	.0
70.	.1	.0	.1	.1
80.	.1	.0	.1	.2
90.	.2	.1	.0	.1
100.	.2	.1	.0	.0
110.	.1	.1	.0	.0
120.	.1	.1	.0	.0
130.	.0	.0	.2	.0
140.	.0	.0	.2	.0
150.	.1	.0	.2	.0
160.	.2	.1	.2	.0
170.	.2	.1	.2	.0
180.	.1	.2	.1	.1
190.	.0	.3	.0	.3
200.	.0	.2	.0	.2
210.	.0	.1	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.1	.0	.1
250.	.0	.1	.0	.1
260.	.0	.1	.0	.1
270.	.0	.1	.0	.1
280.	.0	.1	.0	.1
290.	.0	.1	.0	.1
300.	.0	.1	.0	.1
310.	.0	.1	.0	.0
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.2	.0	.1
350.	.0	.3	.0	.3
360.	.1	.1	.1	.2
-----*				
MAX	.2	.3	.2	.3
DEGR.	10	190	10	190

THE HIGHEST CONCENTRATION OF .30 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7FpmEX.cl RUN: 7th & F St - 2010 NP

DATE : 11/26/ 8
 TIME : 15:54:32

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)		(VEH)	
1. nba	*	512.0	.0	512.0	500.0	*	500.	360. AG	346.	4.0	.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	529.	4.0	.0	32.0		
3. nbq	*	512.0	488.0	512.0	468.1	*	20.	180. AG	11.	100.0	.0	24.0	.19 1.0	
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	255.	4.0	.0	32.0		
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	277.	4.0	.0	32.0		
6. sbq	*	488.0	524.0	488.0	553.3	*	29.	360. AG	6.	100.0	.0	12.0	.28 1.5	
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	89.	4.0	.0	32.0		
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	143.	4.0	.0	32.0		
9. ebq	*	476.0	494.0	458.5	494.0	*	18.	270. AG	10.	100.0	.0	12.0	.18 .9	
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	263.	4.0	.0	44.0		
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	4.	4.0	.0	32.0		
12. wbq	*	524.0	512.0	549.8	512.0	*	26.	90. AG	20.	100.0	.0	24.0	.26 1.3	

JOB: D:\00Projects\Downtown Natomas\7FpmEX.cl RUN: 7th & F St - 2010 NP

DATE : 11/26/ 8
 TIME : 15:54:32

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	21	3.0	346	1600	6.09	3	3
6. sbq	*	60	21	3.0	255	1600	6.09	3	3
9. ebq	*	60	36	3.0	89	1600	6.09	3	3
12. wbq	*	60	36	3.0	263	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	466.0	534.0	5.4	*
2. ne	*	534.0	534.0	5.4	*
3. sw	*	466.0	478.0	5.4	*
4. se	*	534.0	478.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.2	.0
30.	.2	.0	.1	.0
40.	.1	.0	.1	.0
50.	.1	.0	.0	.0
60.	.1	.0	.0	.0
70.	.1	.0	.1	.1
80.	.1	.0	.1	.2
90.	.2	.1	.0	.1
100.	.2	.1	.0	.0
110.	.1	.1	.0	.0
120.	.0	.1	.0	.0
130.	.0	.0	.0	.0
140.	.0	.0	.0	.0
150.	.0	.0	.2	.0
160.	.2	.1	.2	.0
170.	.2	.1	.2	.0
180.	.1	.2	.1	.1
190.	.0	.3	.0	.2
200.	.0	.1	.0	.1
210.	.0	.1	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.1	.0	.0
250.	.0	.1	.0	.0
260.	.0	.1	.0	.0
270.	.0	.1	.0	.0
280.	.0	.1	.0	.0
290.	.0	.1	.0	.0
300.	.0	.1	.0	.0
310.	.0	.1	.0	.0
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.1	.0	.1
350.	.0	.2	.0	.3
360.	.1	.1	.1	.2
MAX	.2	.3	.2	.3
DEGR.	10	190	10	350

THE HIGHEST CONCENTRATION OF .30 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7FpmEX.cl RUN: 7th & F St - 2010 WP

DATE : 11/26/ 8
 TIME : 15:56:20

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	512.0	.0	512.0	500.0	*	500.	360. AG	337.	4.0	.0	44.0	
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	517.	4.0	.0	32.0	
3. nbq	*	512.0	488.0	512.0	468.7	*	19.	180. AG	11.	100.0	.0	24.0	
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	248.	4.0	.0	32.0	
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	270.	4.0	.0	32.0	
6. sbq	*	488.0	524.0	488.0	552.5	*	28.	360. AG	6.	100.0	.0	12.0	
7. eba	*	.0	494.0	500.0	494.0	*	500.	90. AG	85.	4.0	.0	32.0	
8. ebd	*	500.0	494.0	1000.0	494.0	*	500.	90. AG	138.	4.0	.0	32.0	
9. ebq	*	476.0	494.0	459.3	494.0	*	17.	270. AG	10.	100.0	.0	12.0	
10. wba	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	256.	4.0	.0	44.0	
11. wbd	*	500.0	512.0	.0	512.0	*	500.	270. AG	1.	4.0	.0	32.0	
12. wbq	*	524.0	512.0	549.2	512.0	*	25.	90. AG	20.	100.0	.0	24.0	

JOB: D:\00Projects\Downtown Natomas\7FpmEX.cl RUN: 7th & F St - 2010 WP

DATE : 11/26/ 8
 TIME : 15:56:20

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH	RED TIME	CLEARANCE LOST TIME	APPROACH VOL	SATURATION FLOW RATE	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	21	3.0	337	1600	6.09	3	3
6. sbq	*	60	21	3.0	248	1600	6.09	3	3
9. ebq	*	60	36	3.0	85	1600	6.09	3	3
12. wbq	*	60	36	3.0	256	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	466.0	534.0	5.4	*
2. ne	*	534.0	534.0	5.4	*
3. sw	*	466.0	478.0	5.4	*
4. se	*	534.0	478.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	CONCENTRATION (PPM) REC2	CONCENTRATION (PPM) REC3	CONCENTRATION (PPM) REC4
0.	.1	.1	.1	.2
10.	.2	.0	.2	.0
20.	.2	.0	.2	.0
30.	.2	.0	.1	.0
40.	.1	.0	.1	.0
50.	.1	.0	.0	.0
60.	.1	.0	.0	.0
70.	.1	.0	.1	.1
80.	.1	.0	.1	.2
90.	.2	.1	.0	.0
100.	.2	.1	.0	.0
110.	.1	.1	.0	.0
120.	.0	.1	.0	.0
130.	.0	.0	.0	.0
140.	.0	.0	.0	.0
150.	.0	.0	.2	.0
160.	.2	.1	.2	.0
170.	.2	.1	.2	.0
180.	.1	.2	.1	.1
190.	.0	.3	.0	.2
200.	.0	.1	.0	.1
210.	.0	.1	.0	.1
220.	.0	.1	.0	.1
230.	.0	.1	.0	.1
240.	.0	.1	.0	.0
250.	.0	.1	.0	.0
260.	.0	.1	.0	.0
270.	.0	.1	.0	.0
280.	.0	.1	.0	.0
290.	.0	.1	.0	.0
300.	.0	.1	.0	.0
310.	.0	.1	.0	.0
320.	.0	.1	.0	.1
330.	.0	.1	.0	.1
340.	.0	.1	.0	.1
350.	.0	.2	.0	.2
360.	.1	.1	.1	.2
MAX	.2	.3	.2	.2
DEGR.	10	190	10	0

THE HIGHEST CONCENTRATION OF .30 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c RUN: 7th & Richards AM - 2008 EX

DATE : 11/26/ 8
 TIME : 15: 7:18

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	129.	4.8	.0	56.0	
2. nbd	*	518.0	.0	518.0	1000.0	*	1000.	360. AG	71.	4.8	.0	32.0	
3. nbq	*	518.0	464.0	518.0	439.9	*	24.	180. AG	44.	100.0	.0	36.0	.81 1.2
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	14.	4.8	.0	44.0	
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	482.	4.8	.0	32.0	
6. sbq	*	488.0	536.0	488.0	538.0	*	2.	360. AG	29.	100.0	.0	24.0	.13 .1
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	977.	4.8	.0	56.0	
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	721.	4.8	.0	44.0	
9. ebq	*	476.0	482.0	468.9	482.0	*	7.	270. AG	3.	100.0	.0	36.0	.24 .4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	761.	4.8	.0	56.0	
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	607.	4.8	.0	44.0	
12. wbq	*	536.0	518.0	541.5	518.0	*	6.	90. AG	3.	100.0	.0	36.0	.19 .3

PAGE 2

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c RUN: 7th & Richards AM - 2008 EX

DATE : 11/26/ 8
 TIME : 15: 7:18

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	53	3.0	129	1600	6.22	3	3
6. sbq	*	60	53	3.0	14	1600	6.22	3	3
9. ebq	*	60	4	3.0	977	1600	6.22	3	3
12. wbq	*	60	4	3.0	761	1600	6.22	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	X	Y	Z	*
1. nw	*	466.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	466.0	454.0	5.4	*
4. se	*	546.0	454.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.0	.0	.3	.2
10.	.0	.0	.3	.2
20.	.0	.0	.4	.2
30.	.0	.0	.4	.2
40.	.0	.0	.3	.2
50.	.0	.0	.4	.2
60.	.0	.0	.4	.3
70.	.0	.0	.6	.3
80.	.0	.0	.7	.4
90.	.2	.2	.5	.1
100.	.4	.4	.2	.0
110.	.3	.3	.1	.0
120.	.3	.3	.1	.0
130.	.3	.3	.1	.0
140.	.2	.2	.1	.0
150.	.2	.2	.1	.0
160.	.3	.2	.2	.0
170.	.4	.2	.2	.0
180.	.3	.2	.1	.0
190.	.2	.3	.0	.2
200.	.2	.3	.0	.1
210.	.2	.3	.0	.1
220.	.2	.3	.0	.1
230.	.2	.2	.0	.1
240.	.3	.4	.0	.2
250.	.4	.4	.0	.2
260.	.4	.5	.1	.2
270.	.1	.2	.3	.4
280.	.0	.0	.5	.6
290.	.0	.0	.4	.6
300.	.0	.0	.3	.3
310.	.0	.0	.3	.3
320.	.0	.0	.3	.1
330.	.0	.0	.3	.2
340.	.0	.0	.2	.2
350.	.0	.0	.2	.2
360.	.0	.0	.3	.2
MAX	.4	.5	.7	.6
DEGR.	100	260	80	280

THE HIGHEST CONCENTRATION OF .70 PPM OCCURRED AT RECEPTOR REC3 .

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c RUN: 7th & Richards AM - 2010 NP

DATE : 11/26/ 8
 TIME : 15:13: 8

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	167.	4.0	.0	56.0	
2. nbd	*	518.0	.0	518.0	1000.0	*	1000.	360. AG	261.	4.0	.0	32.0	
3. nbq	*	518.0	464.0	518.0	448.0	*	16.	180. AG	42.	100.0	.0	36.0 .52 .8	
4. sba	*	488.0	1000.0	488.0	500.0	*	500.	180. AG	105.	4.0	.0	44.0	
5. sbd	*	488.0	500.0	488.0	.0	*	500.	180. AG	472.	4.0	.0	32.0	
6. sbq	*	488.0	536.0	488.0	550.9	*	15.	360. AG	28.	100.0	.0	24.0 .49 .8	
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1317.	4.0	.0	56.0	
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1017.	4.0	.0	44.0	
9. ebq	*	476.0	482.0	461.6	482.0	*	14.	270. AG	5.	100.0	.0	36.0 .34 .7	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	798.	4.0	.0	56.0	
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	638.	4.0	.0	44.0	
12. wbq	*	536.0	518.0	544.7	518.0	*	9.	90. AG	5.	100.0	.0	36.0 .20 .4	

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c RUN: 7th & Richards AM - 2010 NP

DATE : 11/26/ 8
 TIME : 15:13: 8

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	51	3.0	167	1600	6.09	3	3
6. sbq	*	60	51	3.0	105	1600	6.09	3	3
9. ebq	*	60	6	3.0	1317	1600	6.09	3	3
12. wbq	*	60	6	3.0	798	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	466.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	466.0	454.0	5.4	*
4. se	*	546.0	454.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.0	.0	.3	.2
10.	.0	.0	.3	.2
20.	.0	.0	.4	.2
30.	.0	.0	.3	.2
40.	.0	.0	.4	.3
50.	.0	.0	.4	.3
60.	.0	.0	.4	.3
70.	.0	.0	.5	.4
80.	.1	.0	.7	.4
90.	.3	.2	.5	.2
100.	.5	.4	.1	.0
110.	.5	.4	.1	.0
120.	.2	.3	.1	.0
130.	.3	.2	.1	.0
140.	.2	.2	.1	.0
150.	.3	.2	.1	.0
160.	.3	.2	.1	.0
170.	.3	.2	.2	.0
180.	.3	.2	.1	.0
190.	.2	.4	.0	.3
200.	.2	.4	.0	.2
210.	.2	.3	.0	.1
220.	.2	.2	.0	.1
230.	.3	.2	.0	.0
240.	.3	.4	.0	.0
250.	.4	.4	.0	.0
260.	.4	.5	.1	.1
270.	.1	.2	.3	.4
280.	.0	.0	.6	.6
290.	.0	.0	.4	.5
300.	.0	.0	.4	.3
310.	.0	.0	.3	.3
320.	.0	.0	.3	.1
330.	.0	.0	.3	.2
340.	.0	.1	.3	.3
350.	.0	.1	.3	.3
360.	.0	.0	.3	.2
MAX	.5	.5	.7	.6
DEGR.	100	260	80	280

THE HIGHEST CONCENTRATION OF .70 PPM OCCURRED AT RECEPTOR REC3 .

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c

RUN: 7th & Richards AM - 2010 WP

DATE : 11/26/ 8
 TIME : 15:15:42

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	* 518.0	.0	518.0	500.0	* 500.	360. AG	162.	4.0	.0	56.0		
2. nbd	* 518.0	.0	518.0	1000.0	* 1000.	360. AG	254.	4.0	.0	32.0		
3. nbq	* 518.0	464.0	518.0	449.2	* 15.	180. AG	41.	100.0	.0	36.0	.41	.8
4. sba	* 488.0	1000.0	488.0	500.0	* 500.	180. AG	102.	4.0	.0	44.0		
5. sbd	* 488.0	500.0	488.0	.0	* 500.	180. AG	461.	4.0	.0	32.0		
6. sbq	* 488.0	536.0	488.0	549.9	* 14.	360. AG	27.	100.0	.0	24.0	.38	.7
7. eba	* .0	482.0	500.0	482.0	* 500.	90. AG	1022.	4.0	.0	56.0		
8. ebd	* 500.0	482.0	1000.0	482.0	* 500.	90. AG	728.	4.0	.0	44.0		
9. ebq	* 476.0	482.0	463.0	482.0	* 13.	270. AG	6.	100.0	.0	36.0	.27	.7
10. wba	* 1000.0	518.0	500.0	518.0	* 500.	270. AG	781.	4.0	.0	56.0		
11. wbd	* 500.0	518.0	.0	518.0	* 500.	270. AG	624.	4.0	.0	44.0		
12. wbq	* 536.0	518.0	546.0	518.0	* 10.	90. AG	6.	100.0	.0	36.0	.20	.5

JOB: D:\00Projects\Downtown Natomas\7RIamEX.c

RUN: 7th & Richards AM - 2010 WP

DATE : 11/26/ 8
 TIME : 15:15:42

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	* 60	50	3.0	162	1600	6.09	3	3
6. sbq	* 60	50	3.0	102	1600	6.09	3	3
9. ebq	* 60	7	3.0	1022	1600	6.09	3	3
12. wbq	* 60	7	3.0	781	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z	*
1. nw	* 466.0	546.0	5.4	*
2. ne	* 546.0	546.0	5.4	*
3. sw	* 466.0	454.0	5.4	*
4. se	* 546.0	454.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.0	.0	.2	.2
10.	.0	.0	.2	.2
20.	.0	.0	.2	.2
30.	.0	.0	.2	.2
40.	.0	.0	.3	.2
50.	.0	.0	.4	.2
60.	.0	.0	.4	.2
70.	.0	.0	.4	.3
80.	.0	.0	.6	.3
90.	.3	.2	.3	.1
100.	.4	.4	.1	.0
110.	.3	.3	.1	.0
120.	.2	.3	.1	.0
130.	.3	.2	.1	.0
140.	.2	.2	.1	.0
150.	.1	.2	.1	.0
160.	.3	.2	.1	.0
170.	.3	.2	.2	.0
180.	.3	.2	.1	.0
190.	.2	.4	.0	.3
200.	.2	.4	.0	.2
210.	.2	.3	.0	.1
220.	.2	.2	.0	.1
230.	.2	.2	.0	.0
240.	.2	.3	.0	.0
250.	.4	.4	.0	.0
260.	.3	.5	.0	.1
270.	.1	.1	.3	.3
280.	.0	.0	.5	.5
290.	.0	.0	.4	.5
300.	.0	.0	.3	.3
310.	.0	.0	.3	.3
320.	.0	.0	.3	.1
330.	.0	.0	.2	.2
340.	.0	.1	.2	.3
350.	.0	.1	.2	.3
360.	.0	.0	.2	.2
MAX	.4	.5	.6	.5
DEGR.	100	260	80	280

THE HIGHEST CONCENTRATION OF .60 PPM OCCURRED AT RECEPTOR REC3 .

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2008 EX

DATE : 11/26/ 8
 TIME : 16:31:59

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

 VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	613.	4.8	.0	56.0	
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	619.	4.8	.0	56.0	
3. nbq	*	518.0	500.0	518.0	469.9	*	30.	180. AG	23.	100.0	.0	36.0 .27 1.5	
4. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	561.	4.8	.0	56.0	
5. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	555.	4.8	.0	56.0	
6. wbq	*	536.0	518.0	566.7	518.0	*	31.	90. AG	25.	100.0	.0	36.0 .28 1.6	

PAGE 2

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2008 EX

DATE : 11/26/ 8
 TIME : 16:31:59

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	27	3.0	613	1600	6.22	3	3
6. wbq	*	60	30	3.0	561	1600	6.22	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	490.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	490.0	490.0	5.4	*
4. se	*	546.0	490.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.2	.2	.3	.4
10.	.3	.0	.4	.2
20.	.2	.0	.2	.2
30.	.1	.0	.2	.2
40.	.1	.0	.2	.1
50.	.1	.0	.2	.1
60.	.1	.0	.2	.1
70.	.1	.0	.3	.2
80.	.1	.0	.4	.2
90.	.3	.2	.4	.2
100.	.3	.2	.2	.0
110.	.3	.2	.2	.0
120.	.2	.1	.2	.0
130.	.2	.1	.1	.0
140.	.2	.1	.1	.0
150.	.3	.2	.1	.0
160.	.2	.2	.2	.0
170.	.4	.2	.3	.0
180.	.3	.4	.2	.2
190.	.1	.5	.0	.3
200.	.1	.3	.0	.2
210.	.1	.3	.0	.1
220.	.1	.2	.0	.1
230.	.1	.2	.0	.1
240.	.1	.3	.0	.2
250.	.2	.3	.0	.2
260.	.2	.4	.0	.2
270.	.2	.2	.2	.3
280.	.0	.1	.2	.5
290.	.0	.1	.2	.3
300.	.0	.1	.1	.3
310.	.0	.1	.1	.2
320.	.0	.1	.1	.2
330.	.0	.1	.1	.2
340.	.0	.2	.1	.3
350.	.0	.3	.1	.5
360.	.2	.2	.3	.4
MAX	.4	.5	.4	.5
DEGR.	170	190	10	280

THE HIGHEST CONCENTRATION OF .50 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2010 NP

DATE : 11/26/ 8
 TIME : 16:36:12

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

 VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT)	(FT)		(VEH)
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	573.	4.0	.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	631.	4.0	.0	56.0		
3. nbq	*	518.0	500.0	518.0	469.7	*	30.	180. AG	24.	100.0	.0	36.0	.28	1.5
4. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	587.	4.0	.0	56.0		
5. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	529.	4.0	.0	56.0		
6. wbq	*	536.0	518.0	565.9	518.0	*	30.	90. AG	23.	100.0	.0	36.0	.27	1.5

PAGE 2

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2010 NP

DATE : 11/26/ 8
 TIME : 16:36:12

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	29	3.0	573	1600	6.09	3	3
6. wbq	*	60	28	3.0	587	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	490.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	490.0	490.0	5.4	*
4. se	*	546.0	490.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.2	.2	.3	.4
10.	.2	.0	.3	.2
20.	.2	.0	.2	.2
30.	.1	.0	.2	.2
40.	.1	.0	.2	.1
50.	.1	.0	.2	.1
60.	.1	.0	.2	.1
70.	.1	.0	.1	.2
80.	.1	.0	.4	.2
90.	.2	.1	.3	.1
100.	.3	.2	.2	.0
110.	.2	.2	.2	.0
120.	.2	.1	.2	.0
130.	.2	.1	.1	.0
140.	.2	.1	.1	.0
150.	.3	.2	.1	.0
160.	.2	.2	.2	.0
170.	.4	.2	.2	.0
180.	.2	.3	.1	.1
190.	.1	.5	.0	.2
200.	.1	.3	.0	.2
210.	.1	.3	.0	.1
220.	.1	.2	.0	.1
230.	.1	.2	.0	.1
240.	.1	.2	.0	.2
250.	.1	.3	.0	.2
260.	.2	.3	.0	.2
270.	.1	.2	.1	.3
280.	.0	.1	.2	.4
290.	.0	.1	.1	.2
300.	.0	.1	.1	.2
310.	.0	.1	.1	.2
320.	.0	.1	.1	.2
330.	.0	.1	.1	.2
340.	.0	.2	.1	.3
350.	.0	.2	.1	.4
360.	.2	.2	.3	.4
MAX	.4	.5	.4	.4
DEGR.	170	190	80	0

THE HIGHEST CONCENTRATION OF .50 PPM OCCURRED AT RECEPTOR REC2 .

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2010 WP

DATE : 11/26/ 8
 TIME : 16:37:34

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

 VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)	(G/MI)	(FT)	(FT)	(VEH)	
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	561.	4.0	.0	56.0	
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	617.	4.0	.0	56.0	
3. nbq	*	518.0	500.0	518.0	470.3	*	30.	180. AG	24.	100.0	.0	36.0 .27 1.5	
4. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	574.	4.0	.0	56.0	
5. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	518.	4.0	.0	56.0	
6. wbq	*	536.0	518.0	565.2	518.0	*	29.	90. AG	23.	100.0	.0	36.0 .27 1.5	

PAGE 2

JOB: D:\00Projects\Downtown Natomas\8GamEX.cl RUN: 8th & G St - 2010 WP

DATE : 11/26/ 8
 TIME : 16:37:34

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
3. nbq	*	60	29	3.0	561	1600	6.09	3	3
6. wbq	*	60	28	3.0	574	1600	6.09	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	490.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	490.0	490.0	5.4	*
4. se	*	546.0	490.0	5.4	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	.2	.2	.3	.4
10.	.2	.0	.3	.2
20.	.2	.0	.1	.2
30.	.1	.0	.2	.1
40.	.1	.0	.2	.1
50.	.1	.0	.2	.1
60.	.1	.0	.2	.1
70.	.1	.0	.1	.2
80.	.1	.0	.4	.2
90.	.2	.1	.3	.1
100.	.3	.2	.2	.0
110.	.2	.2	.2	.0
120.	.2	.1	.2	.0
130.	.2	.1	.1	.0
140.	.2	.1	.1	.0
150.	.3	.1	.1	.0
160.	.2	.2	.1	.0
170.	.4	.2	.2	.0
180.	.2	.3	.1	.1
190.	.1	.5	.0	.2
200.	.1	.3	.0	.1
210.	.1	.3	.0	.1
220.	.1	.2	.0	.1
230.	.1	.2	.0	.1
240.	.1	.2	.0	.2
250.	.1	.3	.0	.2
260.	.2	.3	.0	.2
270.	.1	.2	.1	.3
280.	.0	.1	.2	.4
290.	.0	.1	.1	.2
300.	.0	.1	.1	.2
310.	.0	.1	.1	.2
320.	.0	.1	.1	.2
330.	.0	.1	.1	.2
340.	.0	.2	.1	.2
350.	.0	.2	.1	.4
360.	.2	.2	.3	.4
MAX	.4	.5	.4	.4
DEGR.	170	190	80	0

THE HIGHEST CONCENTRATION OF .50 PPM OCCURRED AT RECEPTOR REC2 .

Construction Emission Calculations and Output Files

Road Construction Emissions Model, Version 6.3.1

Emission Estimates for -> DNA LRT MOS-1											
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)	
Grubbing/Land Clearing	5.1	22.3	39.6	10.1	1.8	8.3	3.4	1.7	1.7	3,327.2	
Grading/Excavation	10.7	43.6	81.4	12.6	4.4	8.3	5.7	4.0	1.7	6,937.1	
Drainage/Utilities/Sub-Grade	5.2	19.7	36.7	10.3	2.0	8.3	3.6	1.9	1.7	3,098.0	
Paving	3.7	10.6	17.2	1.5	1.5	-	1.4	1.4	-	1,366.7	
Maximum (pounds/day)	10.7	43.6	81.4	12.6	4.4	8.3	5.7	4.0	1.7	6,937.1	
Total (tons/construction project)	1.0	3.7	6.9	1.3	0.4	0.9	0.5	0.3	0.2	586.8	

Notes:
 Project Start Year -> 2009
 Project Length (months) -> 12
 Total Project Area (acres) -> 3
 Maximum Area Disturbed/Day (acres) -> 1
 Total Soil Imported/Exported (yd³/day)-> 37

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> DNA LRT MOS-1											
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)	
Grubbing/Land Clearing	2.3	10.1	18.0	4.6	0.8	3.8	1.5	0.8	0.8	1,512.4	
Grading/Excavation	4.9	19.8	37.0	5.7	2.0	3.8	2.6	1.8	0.8	3,153.2	
Drainage/Utilities/Sub-Grade	2.4	8.9	16.7	4.7	0.9	3.8	1.6	0.8	0.8	1,408.2	
Paving	1.7	4.8	7.8	0.7	0.7	-	0.6	0.6	-	621.2	
Maximum (kilograms/day)	4.9	19.8	37.0	5.7	2.0	3.8	2.6	1.8	0.8	3,153.2	
Total (megagrams/construction project)	0.9	3.4	6.3	1.2	0.3	0.8	0.5	0.3	0.2	532.3	

Notes:
 Project Start Year -> 2009
 Project Length (months) -> 12
 Total Project Area (hectares) -> 1
 Maximum Area Disturbed/Day (hectares) -> 0
 Total Soil Imported/Exported (meters³/day)-> 28

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model

Version 6.3.1

Data Entry Worksheet

Note: Required data input sections have a yellow background.
 Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
 The user is required to enter information in cells C10 through C25.



Input Type

Project Name	DNA LRT MOS-1	
Construction Start Year	2009	Enter a Year between 2005 and 2025 (inclusive)
Project Type	1	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	12.0	months
Predominant Soil/Site Type: Enter 1, 2, or 3 Please note: Select either 1, 2, or 3 to specify soil type		1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	1	mile
Total Project Area	3.3	acres
Maximum Area Disturbed/Day	0.8	acres
Water Trucks Used?	1	1. Yes 2. No
Soil Imported	37.0	yd ³ /day
Soil Exported	0.0	yd ³ /day
Average Truck Capacity	20.0	yd ³ (assume 20 if unknown)

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells C34 through C37.

Construction Periods	User Override of		Program
	Construction Months		Calculated
		Months	Months
Grubbing/Land Clearing		1.20	0.00
Grading/Excavation		4.80	0.00
Drainage/Utilities/Sub-Grade		4.20	0.00
Paving		1.80	0.00
Totals	0.00	12.00	0.00

2005	%	2006	%	2007	%
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	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00

Hauling emission default values can be overridden in cells C45 through C46.

Soil Hauling Emissions		User Override of					
User Input	Soil Hauling Defaults	Default Values					
Miles/round trip			30				
Round trips/day			2				
Vehicle miles traveled/day (calculated)			55.545				
Hauling Emissions		ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate (grams/mile)		1.19	15.82	8.52	0.62	0.53	1847.96
Emission rate (grams/trip)		12.14	8.36	214.37	0.02	0.01	229.92
Pounds per day		0.2	2.0	2.8	0.1	0.1	228.0
Tons per construction period		0.01	0.11	0.15	0.00	0.00	12.04

Worker commute default values can be overridden in cells C60 through C65.

Worker Commute Emissions		User Override of Worker					
	Commute Default Values	Default Values					
Miles/ one-way trip			20				
One-way trips/day			2				
No. of employees: Grubbing/Land Clearing			1				
No. of employees: Grading/Excavation			3				
No. of employees: Drainage/Utilities/Sub-Grade			3				
No. of employees: Paving			4				
		ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)		0.195	0.332	3.340	0.034	0.019	426.170
Emission rate - Grading/Excavation (grams/mile)		0.195	0.332	3.340	0.034	0.019	426.170
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)		0.195	0.332	3.340	0.034	0.019	426.170
Emission rate - Paving (grams/mile)		0.195	0.332	3.340	0.026	0.019	426.170
Emission rate - Grubbing/Land Clearing (grams/trip)		1.048	0.435	10.085	0.120	0.011	190.980
Emission rate - Grading/Excavation (grams/trip)		1.048	0.435	10.085	0.120	0.011	190.980
Emission rate - Draining/Utilities/Sub-Grade (gr/trip)		1.048	0.435	10.085	0.120	0.011	190.980
Emission rate - Paving (grams/trip)		1.048	0.435	10.085	0.120	0.011	190.980
Pounds per day - Grubbing/Land Clearing		0.033	0.041	0.479	0.005	0.002	49.038
Tons per const. Period - Grub/Land Clear		0.000	0.001	0.006	0.000	0.000	0.647
Pounds per day - Grading/Excavation		0.033	0.041	0.479	0.005	0.002	49.038
Tons per const. Period - Grading/Excavation		0.002	0.002	0.025	0.000	0.000	2.589
Pounds per day - Drainage/Utilities/Sub-Grade		0.033	0.041	0.479	0.005	0.002	49.038
Tons per const. Period - Drain/Util/Sub-Grade		0.002	0.002	0.022	0.000	0.000	2.266
Pounds per day - Paving		0.076	0.041	0.479	0.004	0.002	142.908
Tons per const. Period - Paving		0.002	0.001	0.009	0.000	0.000	2.830
Tons per construction period		0.005	0.005	0.063	0.001	0.000	8.332

Water truck default values can be overridden in cells C91 through C93 and E91 through E93.

Water Truck Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values		
	Default # Water Trucks	Number of Water Trucks	Miles Traveled/Day	Miles Traveled/Day		
Grubbing/Land Clearing - Exhaust		1				40
Grading/Excavation - Exhaust		1				40
Drainage/Utilities/Subgrade		1				40
	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)	1.19	15.82	8.52	0.62	0.53	1847.96
Emission rate - Grading/Excavation (grams/mile)	1.19	15.82	8.52	0.62	0.53	1847.96
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)	1.19	15.82	8.52	0.62	0.53	1847.96
Pounds per day - Grubbing/Land Clearing	0.11	1.39	0.75	0.05	0.05	162.82
Tons per const. Period - Grub/Land Clear	0.01	0.07	0.04	0.00	0.00	8.60
Pound per day - Grading/Excavation	0.11	1.39	0.75	0.05	0.05	162.82
Tons per const. Period - Grading/Excavation	0.01	0.07	0.04	0.00	0.00	8.60
Pound per day - Drainage/Utilities/Subgrade	0.10	1.39	0.75	0.05	0.05	162.82
Tons per const. Period - Drainage/Utilities/Subgrade	0.00	0.06	0.03	0.00	0.00	7.52

Fugitive dust default values can be overridden in cells C110 through C112.

Fugitive Dust	User Override of Max	Default	PM10	PM10	PM2.5	PM2.5
	Acreage Disturbed/Day	Maximum Acreage/Day	pounds/day	tons/per period	pounds/day	tons/per period
Fugitive Dust - Grubbing/Land Clearing		0.825	8.3	0.1	1.7	0.0
Fugitive Dust - Grading/Excavation		0.825	8.3	0.4	1.7	0.1
Fugitive Dust - Drainage/Utilities/Subgrade		0.825	8.3	0.4	1.7	0.1

Off-Road Equipment Emissions

Grubbing/Land Clearing		Default Number of Vehicles	ROG	CO	NOx	PM10	PM2.5	CO2	
Override of Default Number of Vehicles	Program-estimate	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00	
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00	
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	
		Graders	0.00	0.00	0.00	0.00	0.00	0.00	
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00	
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00	
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00	
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	
		1 Rubber Tired Dozers	1.83	9.30	16.46	0.70	0.65	1245.79	
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	
		1 Scrapers	2.01	9.02	19.18	0.78	0.71	1623.76	
		2 Signal Boards	1.13	2.71	2.57	0.27	0.25	245.82	
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	
		Welders	0.00	0.00	0.00	0.00	0.00	0.00	
		Grubbing/Land Clearing	pounds per day	5.0	21.0	38.2	1.7	1.6	3115.4
		Grubbing/Land Clearing	tons per phase	0.1	0.3	0.5	0.0	0.0	41.1

Grading/Excavation	Default		ROG	CO	NOx	PM10	PM2.5	CO2
	Number of Vehicles	Type						
Override of Default Number of Vehicles	Program-estimate		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
	0	Cranes	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	2.00	1 Excavators	1.64	6.57	12.61	0.73	0.67	1094.72
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
	4.00	1 Graders	4.10	15.66	32.02	1.81	1.67	2591.48
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.05	0.16	0.29	0.02	0.02	23.74
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
	2.00	1 Rubber Tired Loaders	1.43	5.51	11.25	0.63	0.58	917.73
		1 Scrapers	2.01	9.02	19.18	0.78	0.71	1623.76
		2 Signal Boards	1.13	2.71	2.57	0.27	0.25	245.82
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation	pounds per day	10.3	39.6	77.9	4.2	3.9	6497.2
	Grading	tons per phase	0.5	2.1	4.1	0.2	0.2	343.1

Drainage/Utilities/Subgrade Override of Default Number of Vehicles	Default		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day
	Number of Vehicles	Program-estimate						
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
	1	Graders	1.02	3.91	8.00	0.45	0.42	647.87
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	1	Plate Compactors	0.02	0.09	0.11	0.01	0.01	14.83
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
	1	Scrapers	2.01	9.02	19.18	0.78	0.71	1623.76
	2	Signal Boards	1.13	2.71	2.57	0.27	0.25	245.82
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
	1	Trenchers	0.91	2.71	5.43	0.46	0.42	353.84
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage	pounds per day	5.1	18.4	35.3	2.0	1.8	2886.1
	Drainage	tons per phase	0.2	0.9	1.6	0.1	0.1	133.3

Paving	Default		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day	
	Number of Vehicles	Type							
Override of Default Number of Vehicles	Program-estimate								
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00	
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00	
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	
		Graders	0.00	0.00	0.00	0.00	0.00	0.00	
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		1 Pavers	1.02	2.99	5.94	0.52	0.47	386.18	
		1 Paving Equipment	0.76	2.24	4.47	0.39	0.36	291.96	
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00	
	1.00	1 Rollers	0.69	2.17	4.17	0.36	0.33	299.86	
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	
		Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	
		2 Signal Boards	1.13	2.71	2.57	0.27	0.25	245.82	
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	
		Welders	0.00	0.00	0.00	0.00	0.00	0.00	
		Paving	pounds per day	3.6	10.1	17.2	1.5	1.4	1223.8
		Paving	tons per phase	0.1	0.2	0.3	0.0	0.0	24.2
Total Emissions all Phases (tons per construction period) =>			0.9	3.4	6.6	0.4	0.3	541.7	

Equipment default values for horsepower, load factor, and hours/day can be overridden in cells C285 through C317, E285 through E317, and G285 through G317.

Equipment	Default Values Horsepower	Default Values Load Factor	Default Values Hours/day
Aerial Lifts	60	0.46	8
Air Compressors	106	0.48	8
Bore/Drill Rigs	291	0.75	8
Cement and Mortar Mixers	10	0.56	8
Concrete/Industrial Saws	19	0.73	8
Cranes	399	0.43	8
Crushing/Proc. Equipment	142	0.78	8
Excavators	168	0.57	8
Forklifts	145	0.30	8
Generator Sets	549	0.74	8
Graders	174	0.61	8
Off-Highway Tractors	267	0.65	8
Off-Highway Trucks	479	0.57	8
Other Construction Equipment	75	0.62	8
Other General Industrial Equipment	238	0.51	8
Other Material Handling Equipment	191	0.59	8
Pavers	100	0.62	8
Paving Equipment	104	0.53	8
Plate Compactors	8	0.43	8
Pressure Washers	1	0.60	8
Pumps	53	0.74	8
Rollers	95	0.56	8
Rough Terrain Forklifts	93	0.60	8
Rubber Tired Dozers	357	0.59	8
Rubber Tired Loaders	157	0.54	8
Scrapers	313	0.72	8
Signal Boards	20	0.78	8
Skid Steer Loaders	44	0.55	8
Surfacing Equipment	362	0.45	8
Sweepers/Scrubbers	91	0.68	8
Tractors/Loaders/Backhoes	108	0.55	8
Trenchers	63	0.75	8
Welders	45	0.45	8

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END OF DATA ENTRY SHEET

Operational Emission Calculations and Output Files

Regional Operational Emissions

Vehicle Miles Traveled (VMT) Summary ¹			
Scenario	Auto Regional VMT	LRT VMT	Total Miles Traveled
No Project 2010	2,428,956	9,273	2,438,228
Project 2010	2,428,837	9,741	2,438,578

VMT Alternative Comparison			
Scenario	Auto Regional VMT	LRT VMT	Total VMT
No Project vs Project 2010	-119	468	350

Automobile Emission Factors (grams/mile)						
Vehicle	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
Auto ²	0.164	3.147	0.281	0.004	0.016	0.017

Light Rail Transit Emission Factors (pounds/megawatt-hour)						
Vehicle	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
Light Rail	0.010	0.200	1.150	0.120	0.040	0.040

Regional Operational Emissions (pounds/day)						
Scenario	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
No Project vs Project 2010	1.14	-0.70	-0.03	0.04	-0.004	-0.004

Regional Operational Emissions (tons/yr)						
Scenario	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
No Project vs Project 2010	0.209	-0.127	-0.006	0.007	-0.001	-0.001

1 Vehicle miles traveled obtained from traffic analysis.

2 Auto emission factors obtained from EMFAC2007.

3 CNG emission factors obtained from CARB.

4 Assumes 17 kilowatt-hours per train mile.

Annual Operational Emissions

Vehicle Miles Traveled (VMT) Summary ¹			
Scenario	Auto Regional VMT	LRT VMT	Total Miles Traveled
No Project 2010	2,428,956	9,273	2,438,228
Project 2010	2,428,837	9,741	2,438,578

VMT Alternative Comparison			
Scenario	Auto Regional VMT	LRT VMT	Total VMT
No Project vs Project 2010	-119	468	350

Automobile Emission Factors (grams/mile)						
Vehcile	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
Auto ²	0.164	3.147	0.281	0.004	0.016	0.017

Light Rail Transit Emission Factors (pounds/megawatt-hour)						
Vehcile	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
Light Rail	0.010	0.200	1.150	0.120	0.040	0.040

Regional Operational Emissions (pounds/day)						
Scenario	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
No Project vs Project 2010	1.14	-0.70	-0.03	0.04	-0.004	-0.004

Regional Operational Emissions (tons/yr)						
Scenario	VOC	CO	NO _x	SO _x	PM _{2.5}	PM ₁₀
No Project vs Project 2010	0.209	-0.127	-0.006	0.007	-0.001	-0.001

1 Vehicle miles traveled obtained from traffic analysis.

2 Auto emission factors obtained from EMFAC2007.

3 CNG emission factors obtained from CARB.

4 Assumes 17 kilowatt-hours per train mile.

Greenhouse Gas Emissions

Vehicle Miles Traveled (VMT) Summary¹			
Scenario	Auto Regional VMT	LRT VMT	Total Miles Traveled
No Project	830,702,808	3,384,463	834,087,271
With Project	830,662,283	3,555,283	834,217,566

VMT Alternative Comparison			
Scenario	Auto Regional VMT	LRT VMT	Total VMT
No Project vs. Project	-40,525	170,820	130,295

Emission Factors (grams/mile)	
Auto²	
CO₂	CH₄
461.361	0.038

GHG Emissions (tons/year)	
Scenario	GHG
No Project vs. Project	-21

1 Vehicle miles traveled obtained from traffic analysis.

2 Auto emission factors obtained from EMFAC2007.

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Unmitigated

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**
*****
**
** ISCAST3 Input Produced by:
** ISC-AERMOD View Ver. 4.6.2
** Lakes Environmental Software Inc.
** Date: 12/3/2008
** File: J:\Projects\Downtown-Natomas-Airport Rail Project 2008-011\Air Quality\ISC\Fugitive Dust\PM.INP
**
*****
**
**
** ISCAST3 Control Pathway
*****
**
**
CO STARTING
TITLEONE Downtown Natomas LRT
TITLETWO Fugitive Dust (annual) - Unmitigated
MODELOPT DFAULT CONC URBAN
AVERTIME 24 ANNUAL
POLLUTID PMTEN
TERRHGT5 FLAT
FLAGPOLE 1.60
RUNORNOT RUN
CO FINISHED
**
*****
** ISCAST3 Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
LOCATION PM AREAPOLY 377266.000 3758509.000
** Source Parameters **
SRCPARAM PM 1.35E-5 0.000 4
AREAVERT PM 377266.000 3758509.000 377266.000 3756900.000
AREAVERT PM 377260.000 3756900.000 377260.000 3758509.000
EMISFACT PM HROFDY 0.00 0.00 0.00 0.00 0.00 0.00
EMISFACT PM HROFDY 0.00 0.00 1.00 1.00 1.00 1.00
EMISFACT PM HROFDY 1.00 1.00 1.00 1.00 0.00 0.00
EMISFACT PM HROFDY 0.00 0.00 0.00 0.00 0.00 0.00
SRCGROUP ALL
SO FINISHED
**
*****
** ISCAST3 Receptor Pathway
*****
**
**
RE STARTING
** DESCRREC "UCART1" "Receptors generated from Uniform Cartesian Grid"
DISCCART 377195.33 3756907.25 1.6
DISCCART 377239.59 3756907.25 1.6
DISCCART 377283.85 3756907.25 1.6
DISCCART 377328.11 3756907.25 1.6
DISCCART 377195.33 3756986.52 1.6
DISCCART 377239.59 3756986.52 1.6
DISCCART 377283.85 3756986.52 1.6
DISCCART 377328.11 3756986.52 1.6
DISCCART 377195.33 3757065.79 1.6
DISCCART 377239.59 3757065.79 1.6
DISCCART 377283.85 3757065.79 1.6
DISCCART 377328.11 3757065.79 1.6
DISCCART 377195.33 3757145.06 1.6
DISCCART 377239.59 3757145.06 1.6
DISCCART 377283.85 3757145.06 1.6
DISCCART 377328.11 3757145.06 1.6
DISCCART 377195.33 3757224.33 1.6
DISCCART 377239.59 3757224.33 1.6
DISCCART 377283.85 3757224.33 1.6
DISCCART 377328.11 3757224.33 1.6
DISCCART 377195.33 3757303.60 1.6
DISCCART 377239.59 3757303.60 1.6
DISCCART 377283.85 3757303.60 1.6
DISCCART 377328.11 3757303.60 1.6
DISCCART 377195.33 3757382.87 1.6
DISCCART 377239.59 3757382.87 1.6
DISCCART 377283.85 3757382.87 1.6
DISCCART 377328.11 3757382.87 1.6
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DISCCART 377328.11 3757462.14 1.6
DISCCART 377195.33 3757541.41 1.6
DISCCART 377239.59 3757541.41 1.6
DISCCART 377283.85 3757541.41 1.6
DISCCART 377328.11 3757541.41 1.6
DISCCART 377195.33 3757620.68 1.6
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DISCCART 377283.85 3757699.95 1.6
DISCCART 377328.11 3757699.95 1.6
DISCCART 377195.33 3757779.22 1.6
DISCCART 377239.59 3757779.22 1.6
DISCCART 377283.85 3757779.22 1.6
DISCCART 377328.11 3757779.22 1.6
DISCCART 377195.33 3757858.49 1.6
DISCCART 377239.59 3757858.49 1.6
DISCCART 377283.85 3757858.49 1.6
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DISCCART 377239.59 3757937.76 1.6
DISCCART 377283.85 3757937.76 1.6
DISCCART 377328.11 3757937.76 1.6
DISCCART 377195.33 3758017.03 1.6
DISCCART 377239.59 3758017.03 1.6
DISCCART 377283.85 3758017.03 1.6
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DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Unmitigated

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DISCCART 377328.11 3758017.03 1.6
DISCCART 377195.33 3758096.30 1.6
DISCCART 377239.59 3758096.30 1.6
DISCCART 377283.85 3758096.30 1.6
DISCCART 377328.11 3758096.30 1.6
DISCCART 377195.33 3758175.57 1.6
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DISCCART 377283.85 3758175.57 1.6
DISCCART 377328.11 3758175.57 1.6
DISCCART 377195.33 3758254.84 1.6
DISCCART 377239.59 3758254.84 1.6
DISCCART 377283.85 3758254.84 1.6
DISCCART 377328.11 3758254.84 1.6
DISCCART 377195.33 3758334.11 1.6
DISCCART 377239.59 3758334.11 1.6
DISCCART 377283.85 3758334.11 1.6
DISCCART 377328.11 3758334.11 1.6
DISCCART 377195.33 3758413.38 1.6
DISCCART 377239.59 3758413.38 1.6
DISCCART 377283.85 3758413.38 1.6
DISCCART 377328.11 3758413.38 1.6
DISCCART 377195.33 3758492.65 1.6
DISCCART 377239.59 3758492.65 1.6
DISCCART 377283.85 3758492.65 1.6
DISCCART 377328.11 3758492.65 1.6
RE FINISHED
**
*****
** ISCAST3 Meteorology Pathway
*****
**
**
ME STARTING
INPUTFIL SACOAK85.asc
ANEMHGHT 10 METERS
SURFDATA 23232 1985 SACRAMENTO/EXECUTIVE_ARPT
UAIRDATA 23230 1985 OAKLAND/WSO_AP
ME FINISHED
**
*****
** ISCAST3 Output Pathway
*****
**
**
OU STARTING
RECTABLE ALLAVE FIRST
RECTABLE 24 FIRST
** Auto-Generated Plotfiles
PLOTFILE 24 ALL 1ST PM.IS\24H1GALL.PLT
PLOTFILE ANNUAL ALL PM.IS\AN00GALL.PLT
OU FINISHED

*****
*** SETUP Finishes Successfully ***
*****
*** ISCAST3 - VERSION 02035 ***      *** Downtown Natomas LRT      ***      12/03/08
*** Fugitive Dust (annual) - Unmitigated      ***      17:37:36
***                                           ***      PAGE 1

**MODELOPTs:
CONC          URBAN FLAT  FLGPOLE DFAULT
-----
***          MODEL SETUP OPTIONS SUMMARY          ***
-----

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE = F
**Model Uses NO WET DEPLETION.  WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
  1. Final Plume Rise.
  2. Stack-tip Downwash.
  3. Buoyancy-induced Dispersion.
  4. Use Calms Processing Routine.
  5. Not Use Missing Data Processing Routine.
  6. Default Wind Profile Exponents.
  7. Default Vertical Potential Temperature Gradients.
  8. "Upper Bound" Values for Supersquat Buildings.
  9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 84 Receptor(s)

**The Model Assumes A Pollutant Type of: PMTEN

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                             m for Missing Hours
                                                             b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000E+00 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

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DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Unmitigated

Source ID	X-COORD (M)	Y-COORD (M)	CONC	Source ID	X-COORD (M)	Y-COORD (M)	CONC
377195.34	3757462.00	0.13723		377239.59	3757462.00	0.42275	
377283.88	3757462.00	1.25237		377328.09	3757462.00	0.41455	
377195.34	3757541.50	0.13828		377239.59	3757541.50	0.42715	
377283.88	3757541.50	1.26998		377328.09	3757541.50	0.40046	
377195.34	3757620.50	0.13873		377239.59	3757620.50	0.43129	
377283.88	3757620.50	1.28755		377328.09	3757620.50	0.40593	
377195.34	3757700.00	0.14066		377239.59	3757700.00	0.43088	
377283.88	3757700.00	1.27598		377328.09	3757700.00	0.40556	
377195.34	3757779.25	0.14421		377239.59	3757779.25	0.43187	
377283.88	3757779.25	1.26725		377328.09	3757779.25	0.40539	
377195.34	3757858.50	0.14321		377239.59	3757858.50	0.43052	
377283.88	3757858.50	1.26146		377328.09	3757858.50	0.40447	
377195.34	3757937.75	0.14474		377239.59	3757937.75	0.42966	
377283.88	3757937.75	1.25740		377328.09	3757937.75	0.40890	
377195.34	3758017.00	0.14223		377239.59	3758017.00	0.42884	
377283.88	3758017.00	1.25766		377328.09	3758017.00	0.41475	
377195.34	3758096.25	0.14260		377239.59	3758096.25	0.42940	
377283.88	3758096.25	1.26343		377328.09	3758096.25	0.40729	
377195.34	3758175.50	0.14308		377239.59	3758175.50	0.42515	
377283.88	3758175.50	1.26483		377328.09	3758175.50	0.39693	
377195.34	3758254.75	0.14041		377239.59	3758254.75	0.42202	
377283.88	3758254.75	1.25438		377328.09	3758254.75	0.38658	
377195.34	3758334.00	0.13671		377239.59	3758334.00	0.41814	
377283.88	3758334.00	1.25051		377328.09	3758334.00	0.37063	
377195.34	3758413.25	0.13247		377239.59	3758413.25	0.40303	
377283.88	3758413.25	1.20812		377328.09	3758413.25	0.33201	

02035 *** Downtown Natomas LRT *** Fugitive Dust (annual) - Unmitigated *** 12/03/08 *** ISCST3 - VERSION

**MODELOPTs: URBAN FLAT FLGPOL DFAULT
CONC

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PM ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PMTEN	IN MICROGRAMS/M**3	**
X-COORD (M)	Y-COORD (M)	CONC
377195.34	3758492.50	0.12090
377283.88	3758492.50	0.86465

02035 *** Downtown Natomas LRT *** Fugitive Dust (annual) - Unmitigated *** 12/03/08 *** ISCST3 - VERSION

**MODELOPTs: URBAN FLAT FLGPOL DFAULT
CONC

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PM ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PMTEN	IN MICROGRAMS/M**3	**
X-COORD (M)	Y-COORD (M)	CONC
377195.34	3756907.25	0.57328c (85112624)
377283.88	3756907.25	3.77529c (85122124)
377195.34	3756986.50	0.72450c (85011624)
377283.88	3756986.50	3.74338c (85122124)
377195.34	3757065.75	1.10735c (85121824)
377283.88	3757065.75	3.66200c (85122124)
377195.34	3757145.00	1.19889c (85121824)
377283.88	3757145.00	3.64187c (85122124)
377195.34	3757224.25	1.25184c (85121824)
377283.88	3757224.25	3.61797c (85122124)
377195.34	3757303.50	1.29776c (85121824)
377283.88	3757303.50	3.57320c (85122124)
377195.34	3757382.75	1.35197c (85121824)
377283.88	3757382.75	3.55614c (85122124)
377195.34	3757462.00	1.58481c (85121824)
377283.88	3757462.00	3.54154c (85111524)
377195.34	3757541.50	1.29131c (85121824)
377283.88	3757541.50	3.52060c (85111524)
377195.34	3757620.50	1.33341c (85121824)
377283.88	3757620.50	3.53837c (85111524)
377195.34	3757700.00	1.37805c (85121824)
377283.88	3757700.00	3.53079c (85111524)
377195.34	3757779.25	1.41566c (85121824)
377283.88	3757779.25	3.52309c (85111524)
377195.34	3757858.50	1.45597c (85121824)
377283.88	3757858.50	3.51907c (85111524)
377195.34	3757937.75	1.59146c (85121824)
377283.88	3757937.75	3.50932c (85111524)
377195.34	3758017.00	1.50271c (85121824)
377283.88	3758017.00	3.46937c (85111524)
377195.34	3758096.25	1.53930c (85121824)
377283.88	3758096.25	3.47682c (85111524)
377195.34	3758175.50	1.57528c (85121824)
377283.88	3758175.50	3.45473c (85111524)
377195.34	3758254.75	1.60920c (85121824)
377283.88	3758254.75	3.37207c (85111524)
377195.34	3758334.00	1.61951c (85121824)
377283.88	3758334.00	3.41198c (85111524)
377195.34	3758413.25	1.56750c (85121824)
377283.88	3758413.25	3.10420c (85112224)

02035 *** Downtown Natomas LRT *** Fugitive Dust (annual) - Unmitigated *** 12/03/08 *** ISCST3 - VERSION

**MODELOPTs: URBAN FLAT FLGPOL DFAULT
CONC

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PM ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PMTEN	IN MICROGRAMS/M**3	**
X-COORD (M)	Y-COORD (M)	CONC
377195.34	3758492.50	1.49495c (85121824)
377283.88	3758492.50	3.07369c (85112224)

02035 *** Downtown Natomas LRT *** Fugitive Dust (annual) - Unmitigated *** 12/03/08 *** ISCST3 - VERSION

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Unmitigated

**MODELOPTs:
CONC

URBAN FLAT FLGPOL DFAULT

PAGE 12

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 1.28755 AT (377283.88, 3757620.50, 0.00, 1.60)	DC	NA	
	2ND HIGHEST VALUE IS 1.27598 AT (377283.88, 3757700.00, 0.00, 1.60)	DC	NA	
	3RD HIGHEST VALUE IS 1.26998 AT (377283.88, 3757541.50, 0.00, 1.60)	DC	NA	
	4TH HIGHEST VALUE IS 1.26725 AT (377283.88, 3757779.25, 0.00, 1.60)	DC	NA	
	5TH HIGHEST VALUE IS 1.26508 AT (377283.88, 3757224.25, 0.00, 1.60)	DC	NA	
	6TH HIGHEST VALUE IS 1.26483 AT (377283.88, 3758175.50, 0.00, 1.60)	DC	NA	
	7TH HIGHEST VALUE IS 1.26369 AT (377283.88, 3757303.50, 0.00, 1.60)	DC	NA	
	8TH HIGHEST VALUE IS 1.26343 AT (377283.88, 3758096.25, 0.00, 1.60)	DC	NA	
	9TH HIGHEST VALUE IS 1.26146 AT (377283.88, 3757858.50, 0.00, 1.60)	DC	NA	
	10TH HIGHEST VALUE IS 1.25766 AT (377283.88, 3758017.00, 0.00, 1.60)	DC	NA	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY *** ISCST3 - VERSION 02035 *** ** Downtown Natomas LRT ***

12/03/08

*** Fugitive Dust (annual) - Unmitigated

*** 17:37:36

**MODELOPTs:
CONC

URBAN FLAT FLGPOL DFAULT

PAGE 13

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 3.77529c	ON 85122124: AT (377283.88, 3756907.25, 0.00, 1.60)	DC	NA	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY *** ISCST3 - VERSION 02035 *** ** Downtown Natomas LRT ***

12/03/08

*** Fugitive Dust (annual) - Unmitigated

*** 17:37:36

**MODELOPTs:
CONC

URBAN FLAT FLGPOL DFAULT

PAGE 14

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 0 Warning Message(s)
 A Total of 1754 Informational Message(s)
 A Total of 1754 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 *** NONE ***

 *** ISCST3 Finishes Successfully ***

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Mitigated

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**
*****
**
** ISCST3 Input Produced by:
** ISC-AERMOD View Ver. 4.6.2
** Lakes Environmental Software Inc.
** Date: 12/3/2008
** File: J:\Projects\Downtown-Natomas-Airport Rail Project 2008-011\Air Quality\ISC\Fugitive Dust\PM-mit.INP
**
*****
**
**
*****
** ISCST3 Control Pathway
*****
**
**
CO STARTING
  TITLEONE Downtown Natomas LRT
  TITLETWO Fugitive Dust - Mitigated
  MODELOPT DFAULT CONC URBAN
  AVERTIME 24 ANNUAL
  POLLUTID PMTEN
  TERRHGT5 FLAT
  FLAGPOLE 1.60
  RUNORNOT RUN
CO FINISHED
**
*****
** ISCST3 Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
LOCATION PM AREAPOLY 377266.000 3758509.000
** Source Parameters **
SRCPARAM PM 1.02E-5 0.000 4
AREAVERT PM 377266.000 3758509.000 377266.000 3756900.000
AREAVERT PM 377260.000 3756900.000 377260.000 3758509.000
EMISFACT PM HROFDY 0.00 0.00 0.00 0.00 0.00 0.00
EMISFACT PM HROFDY 0.00 0.00 1.00 1.00 1.00 1.00
EMISFACT PM HROFDY 1.00 1.00 1.00 1.00 0.00 0.00
EMISFACT PM HROFDY 0.00 0.00 0.00 0.00 0.00 0.00
SRCGROUP ALL
SO FINISHED
**
*****
** ISCST3 Receptor Pathway
*****
**
**
RE STARTING
** DESCRREC "UCART1" "Receptors generated from Uniform Cartesian Grid"
DISCCART 377195.33 3756907.25 1.6
DISCCART 377239.59 3756907.25 1.6
DISCCART 377283.85 3756907.25 1.6
DISCCART 377328.11 3756907.25 1.6
DISCCART 377195.33 3756986.52 1.6
DISCCART 377239.59 3756986.52 1.6
DISCCART 377283.85 3756986.52 1.6
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DISCCART 377283.85 3757065.79 1.6
DISCCART 377328.11 3757065.79 1.6
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DISCCART 377283.85 3757145.06 1.6
DISCCART 377328.11 3757145.06 1.6
DISCCART 377195.33 3757224.33 1.6
DISCCART 377239.59 3757224.33 1.6
DISCCART 377283.85 3757224.33 1.6
DISCCART 377328.11 3757224.33 1.6
DISCCART 377195.33 3757303.60 1.6
DISCCART 377239.59 3757303.60 1.6
DISCCART 377283.85 3757303.60 1.6
DISCCART 377328.11 3757303.60 1.6
DISCCART 377195.33 3757382.87 1.6
DISCCART 377239.59 3757382.87 1.6
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DISCCART 377283.85 3757462.14 1.6
DISCCART 377328.11 3757462.14 1.6
DISCCART 377195.33 3757541.41 1.6
DISCCART 377239.59 3757541.41 1.6
DISCCART 377283.85 3757541.41 1.6
DISCCART 377328.11 3757541.41 1.6
DISCCART 377195.33 3757620.68 1.6
DISCCART 377239.59 3757620.68 1.6
DISCCART 377283.85 3757620.68 1.6
DISCCART 377328.11 3757620.68 1.6
DISCCART 377195.33 3757699.95 1.6
DISCCART 377239.59 3757699.95 1.6
DISCCART 377283.85 3757699.95 1.6
DISCCART 377328.11 3757699.95 1.6
DISCCART 377195.33 3757779.22 1.6
DISCCART 377239.59 3757779.22 1.6
DISCCART 377283.85 3757779.22 1.6
DISCCART 377328.11 3757779.22 1.6
DISCCART 377195.33 3757858.49 1.6
DISCCART 377239.59 3757858.49 1.6
DISCCART 377283.85 3757858.49 1.6
DISCCART 377328.11 3757858.49 1.6
DISCCART 377195.33 3757937.76 1.6
DISCCART 377239.59 3757937.76 1.6
DISCCART 377283.85 3757937.76 1.6
DISCCART 377328.11 3757937.76 1.6
DISCCART 377195.33 3758017.03 1.6
DISCCART 377239.59 3758017.03 1.6
```

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Mitigated

```
DISCCART 377283.85 3758017.03 1.6
DISCCART 377328.11 3758017.03 1.6
DISCCART 377195.33 3758096.30 1.6
DISCCART 377239.59 3758096.30 1.6
DISCCART 377283.85 3758096.30 1.6
DISCCART 377328.11 3758096.30 1.6
DISCCART 377195.33 3758175.57 1.6
DISCCART 377239.59 3758175.57 1.6
DISCCART 377283.85 3758175.57 1.6
DISCCART 377328.11 3758175.57 1.6
DISCCART 377195.33 3758254.84 1.6
DISCCART 377239.59 3758254.84 1.6
DISCCART 377283.85 3758254.84 1.6
DISCCART 377328.11 3758254.84 1.6
DISCCART 377195.33 3758334.11 1.6
DISCCART 377239.59 3758334.11 1.6
DISCCART 377283.85 3758334.11 1.6
DISCCART 377328.11 3758334.11 1.6
DISCCART 377195.33 3758413.38 1.6
DISCCART 377239.59 3758413.38 1.6
DISCCART 377283.85 3758413.38 1.6
DISCCART 377328.11 3758413.38 1.6
DISCCART 377195.33 3758492.65 1.6
DISCCART 377239.59 3758492.65 1.6
DISCCART 377283.85 3758492.65 1.6
DISCCART 377328.11 3758492.65 1.6
RE FINISHED
**
*****
** ISCAST3 Meteorology Pathway
*****
**
**
ME STARTING
INPUTFIL SACOAK85.asc
ANEMHGHT 10 METERS
SURFDATA 23232 1985 SACRAMENTO/EXECUTIVE_ARPT
UAIRDATA 23230 1985 OAKLAND/WSO_AP
ME FINISHED
**
*****
** ISCAST3 Output Pathway
*****
**
**
OU STARTING
RECTABLE ALLAVE FIRST
RECTABLE 24 FIRST
** Auto-Generated Plotfiles
PLOTFILE 24 ALL 1ST PM-MIT.IS\24H1GALL.PLT
PLOTFILE ANNUAL ALL PM-MIT.IS\AN00GALL.PLT
OU FINISHED

*****
*** SETUP Finishes Successfully ***
*****

*** ISCAST3 - VERSION 02035 ***      *** Downtown Natomas LRT          ***      12/03/08
*** Pugitive Dust - Mitigated      ***                               ***      17:46:55
**MODELOPTS:                        ***                               ***      PAGE 1
CONC          URBAN FLAT  FLGPOL DFAULT

***      MODEL SETUP OPTIONS SUMMARY      ***
-----
**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCENTration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE = F
**Model Uses NO WET DEPLETION.  WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 84 Receptor(s)

**The Model Assumes A Pollutant Type of: PMTEN

**Model Set To Continue RUNNING After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values:  c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000E+00 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
```

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Mitigated

Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: PM-mit.INP
 **Output Print File: PM-mit.OUT
 *** ISCST3 - VERSION 02035 ***
 *** Downtown Natomas LRT
 *** Fugitive Dust - Mitigated
 *** 12/03/08
 *** 17:46:55
 *** PAGE 2

**MODELOPTs:
 CONC URBAN FLAT FLGPOL DFAULT

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
PM	0	0.10200E-04	377266.0	3758509.0	0.0	0.00	4	0.00	HROFDY
*** ISCST3 - VERSION 02035 *** *** Downtown Natomas LRT *** Fugitive Dust - Mitigated *** 12/03/08 *** 17:46:55 *** PAGE 3									
**MODELOPTs: CONC URBAN FLAT FLGPOL DFAULT									

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL PM
 *** ISCST3 - VERSION 02035 ***
 *** Downtown Natomas LRT
 *** Fugitive Dust - Mitigated
 *** 12/03/08
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**MODELOPTs:
 CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

GROUP ID	SCALAR	GROUP ID	SCALAR	GROUP ID	SCALAR	GROUP ID	SCALAR	GROUP ID	SCALAR	GROUP ID	SCALAR
SOURCE ID = PM		SOURCE TYPE = AREAPOLY									
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** ISCST3 - VERSION 02035 ***
 *** Downtown Natomas LRT
 *** Fugitive Dust - Mitigated
 *** 12/03/08
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**MODELOPTs:
 CONC URBAN FLAT FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
 (X-COORD, Y-COORD, ZELEV, ZFLAG)
 (METERS)

(377195.3, 3756907.2, 0.0, 1.6);	(377239.6, 3756907.2, 0.0, 1.6);	33333333333333333333333333333333
(377283.9, 3756907.2, 0.0, 1.6);	(377328.1, 3756907.2, 0.0, 1.6);	
(377195.3, 3756986.5, 0.0, 1.6);	(377239.6, 3756986.5, 0.0, 1.6);	
(377283.9, 3756986.5, 0.0, 1.6);	(377328.1, 3756986.5, 0.0, 1.6);	
(377195.3, 3757065.8, 0.0, 1.6);	(377239.6, 3757065.8, 0.0, 1.6);	
(377283.9, 3757065.8, 0.0, 1.6);	(377328.1, 3757065.8, 0.0, 1.6);	
(377195.3, 3757145.0, 0.0, 1.6);	(377239.6, 3757145.0, 0.0, 1.6);	
(377283.9, 3757145.0, 0.0, 1.6);	(377328.1, 3757145.0, 0.0, 1.6);	
(377195.3, 3757224.2, 0.0, 1.6);	(377239.6, 3757224.2, 0.0, 1.6);	
(377283.9, 3757224.2, 0.0, 1.6);	(377328.1, 3757224.2, 0.0, 1.6);	
(377195.3, 3757303.5, 0.0, 1.6);	(377239.6, 3757303.5, 0.0, 1.6);	
(377283.9, 3757303.5, 0.0, 1.6);	(377328.1, 3757303.5, 0.0, 1.6);	
(377195.3, 3757382.8, 0.0, 1.6);	(377239.6, 3757382.8, 0.0, 1.6);	
(377283.9, 3757382.8, 0.0, 1.6);	(377328.1, 3757382.8, 0.0, 1.6);	
(377195.3, 3757462.0, 0.0, 1.6);	(377239.6, 3757462.0, 0.0, 1.6);	
(377283.9, 3757462.0, 0.0, 1.6);	(377328.1, 3757462.0, 0.0, 1.6);	
(377195.3, 3757541.5, 0.0, 1.6);	(377239.6, 3757541.5, 0.0, 1.6);	
(377283.9, 3757541.5, 0.0, 1.6);	(377328.1, 3757541.5, 0.0, 1.6);	
(377195.3, 3757620.5, 0.0, 1.6);	(377239.6, 3757620.5, 0.0, 1.6);	
(377283.9, 3757620.5, 0.0, 1.6);	(377328.1, 3757620.5, 0.0, 1.6);	
(377195.3, 3757700.0, 0.0, 1.6);	(377239.6, 3757700.0, 0.0, 1.6);	
(377283.9, 3757700.0, 0.0, 1.6);	(377328.1, 3757700.0, 0.0, 1.6);	
(377195.3, 3757779.2, 0.0, 1.6);	(377239.6, 3757779.2, 0.0, 1.6);	
(377283.9, 3757779.2, 0.0, 1.6);	(377328.1, 3757779.2, 0.0, 1.6);	
(377195.3, 3757858.5, 0.0, 1.6);	(377239.6, 3757858.5, 0.0, 1.6);	
(377283.9, 3757858.5, 0.0, 1.6);	(377328.1, 3757858.5, 0.0, 1.6);	
(377195.3, 3757937.8, 0.0, 1.6);	(377239.6, 3757937.8, 0.0, 1.6);	
(377283.9, 3757937.8, 0.0, 1.6);	(377328.1, 3757937.8, 0.0, 1.6);	
(377195.3, 3758017.0, 0.0, 1.6);	(377239.6, 3758017.0, 0.0, 1.6);	
(377283.9, 3758017.0, 0.0, 1.6);	(377328.1, 3758017.0, 0.0, 1.6);	
(377195.3, 3758096.2, 0.0, 1.6);	(377239.6, 3758096.2, 0.0, 1.6);	
(377283.9, 3758096.2, 0.0, 1.6);	(377328.1, 3758096.2, 0.0, 1.6);	
(377195.3, 3758175.5, 0.0, 1.6);	(377239.6, 3758175.5, 0.0, 1.6);	
(377283.9, 3758175.5, 0.0, 1.6);	(377328.1, 3758175.5, 0.0, 1.6);	
(377195.3, 3758254.8, 0.0, 1.6);	(377239.6, 3758254.8, 0.0, 1.6);	
(377283.9, 3758254.8, 0.0, 1.6);	(377328.1, 3758254.8, 0.0, 1.6);	
(377195.3, 3758334.0, 0.0, 1.6);	(377239.6, 3758334.0, 0.0, 1.6);	
(377283.9, 3758334.0, 0.0, 1.6);	(377328.1, 3758334.0, 0.0, 1.6);	
(377195.3, 3758413.2, 0.0, 1.6);	(377239.6, 3758413.2, 0.0, 1.6);	
(377283.9, 3758413.2, 0.0, 1.6);	(377328.1, 3758413.2, 0.0, 1.6);	
(377195.3, 3758492.5, 0.0, 1.6);	(377239.6, 3758492.5, 0.0, 1.6);	
(377283.9, 3758492.5, 0.0, 1.6);	(377328.1, 3758492.5, 0.0, 1.6);	

*** ISCST3 - VERSION 02035 ***
 *** Downtown Natomas LRT
 *** Fugitive Dust - Mitigated
 *** 12/03/08
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**MODELOPTs:
 CONC URBAN FLAT FLGPOL DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
 (1=YES; 0=NO)

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Mitigated

377283.88	3757145.00	0.93176	377328.09	3757145.00	0.28536		
377195.34	3757224.25	0.09538	377239.59	3757224.25	0.31037		
377283.88	3757224.25	0.95584	377328.09	3757224.25	0.29358		
377195.34	3757303.50	0.09909	377239.59	3757303.50	0.31333		
377283.88	3757303.50	0.95478	377328.09	3757303.50	0.29823		
377195.34	3757382.75	0.10275	377239.59	3757382.75	0.31844		
377283.88	3757382.75	0.93963	377328.09	3757382.75	0.30086		
377195.34	3757462.00	0.10369	377239.59	3757462.00	0.31941		
377283.88	3757462.00	0.94623	377328.09	3757462.00	0.31321		
377195.34	3757541.50	0.10448	377239.59	3757541.50	0.32274		
377283.88	3757541.50	0.95954	377328.09	3757541.50	0.30257		
377195.34	3757620.50	0.10482	377239.59	3757620.50	0.32587		
377283.88	3757620.50	0.97282	377328.09	3757620.50	0.30670		
377195.34	3757700.00	0.10627	377239.59	3757700.00	0.32556		
377283.88	3757700.00	0.96407	377328.09	3757700.00	0.30642		
377195.34	3757779.25	0.10896	377239.59	3757779.25	0.32630		
377283.88	3757779.25	0.95748	377328.09	3757779.25	0.30630		
377195.34	3757858.50	0.10820	377239.59	3757858.50	0.32528		
377283.88	3757858.50	0.95310	377328.09	3757858.50	0.30560		
377195.34	3757937.75	0.10936	377239.59	3757937.75	0.32463		
377283.88	3757937.75	0.95004	377328.09	3757937.75	0.30895		
377195.34	3758017.00	0.10746	377239.59	3758017.00	0.32401		
377283.88	3758017.00	0.95023	377328.09	3758017.00	0.31337		
377195.34	3758096.25	0.10774	377239.59	3758096.25	0.32444		
377283.88	3758096.25	0.95459	377328.09	3758096.25	0.30773		
377195.34	3758175.50	0.10811	377239.59	3758175.50	0.32122		
377283.88	3758175.50	0.95564	377328.09	3758175.50	0.29991		
377195.34	3758254.75	0.10609	377239.59	3758254.75	0.31886		
377283.88	3758254.75	0.94775	377328.09	3758254.75	0.29208		
377195.34	3758334.00	0.10329	377239.59	3758334.00	0.31592		
377283.88	3758334.00	0.94483	377328.09	3758334.00	0.28003		
377195.34	3758413.25	0.10009	377239.59	3758413.25	0.30451		
377283.88	3758413.25	0.91280	377328.09	3758413.25	0.25086		
*** ISCSCT3 - VERSION 02035 ***							
*** Downtown Natomas LRT			***				
*** Fugitive Dust - Mitigated			***				
***/12/03/08							
***/17:46:55							
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*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***							
INCLUDING SOURCE(S): PM ,							
*** DISCRETE CARTESIAN RECEPTOR POINTS ***							
** CONC OF PMTEN IN MICROGRAMS/M**3 **							
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC		
377195.34	3758492.50	0.09134	377239.59	3758492.50	0.27071		
377283.88	3758492.50	0.65329	377328.09	3758492.50	0.17813		
*** ISCSCT3 - VERSION 02035 ***							
*** Downtown Natomas LRT			***				
*** Fugitive Dust - Mitigated			***				
***/12/03/08							
***/17:46:55							
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*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***							
INCLUDING SOURCE(S): PM ,							
*** DISCRETE CARTESIAN RECEPTOR POINTS ***							
** CONC OF PMTEN IN MICROGRAMS/M**3 **							
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
377195.34	3756907.25	0.43315c	(85112624)	377239.59	3756907.25	1.24053c	(85112624)
377283.88	3756907.25	2.85244c	(85122124)	377328.09	3756907.25	1.22793c	(85122124)
377195.34	3756986.50	0.54740c	(85011624)	377239.59	3756986.50	2.05254c	(85121524)
377283.88	3756986.50	2.82833c	(85122124)	377328.09	3756986.50	1.21278c	(85122124)
377195.34	3757065.75	0.83667c	(85121824)	377239.59	3757065.75	2.24669c	(85121524)
377283.88	3757065.75	2.76684c	(85122124)	377328.09	3757065.75	1.19919c	(85122124)
377195.34	3757145.00	0.90583c	(85121824)	377239.59	3757145.00	2.24656c	(85121524)
377283.88	3757145.00	2.75164c	(85122124)	377328.09	3757145.00	1.16130c	(85122124)
377195.34	3757224.25	0.94584c	(85121824)	377239.59	3757224.25	2.33032c	(85121524)
377283.88	3757224.25	2.73357c	(85122124)	377328.09	3757224.25	1.14854c	(85122124)
377195.34	3757303.50	0.98053c	(85121824)	377239.59	3757303.50	2.33894c	(85121524)
377283.88	3757303.50	2.69975c	(85122124)	377328.09	3757303.50	1.16142c	(85122124)
377195.34	3757382.75	1.02149c	(85121824)	377239.59	3757382.75	2.28999c	(85121524)
377283.88	3757382.75	2.68686c	(85122124)	377328.09	3757382.75	1.11653c	(85122124)
377195.34	3757462.00	1.19741c	(85121824)	377239.59	3757462.00	2.34761c	(85121824)
377283.88	3757462.00	2.67583c	(85111524)	377328.09	3757462.00	1.09432c	(85122124)
377195.34	3757541.50	0.97566c	(85121824)	377239.59	3757541.50	2.40108c	(85121824)
377283.88	3757541.50	2.66001c	(85111524)	377328.09	3757541.50	1.06886c	(85122124)
377195.34	3757620.50	1.00746c	(85121824)	377239.59	3757620.50	2.44900c	(85121824)
377283.88	3757620.50	2.67343c	(85111524)	377328.09	3757620.50	1.04090c	(85122124)
377195.34	3757700.00	1.04119c	(85121824)	377239.59	3757700.00	2.48162c	(85121824)
377283.88	3757700.00	2.66771c	(85111524)	377328.09	3757700.00	1.01238c	(85122124)
377195.34	3757779.25	1.06961c	(85121824)	377239.59	3757779.25	2.51572c	(85121824)
377283.88	3757779.25	2.66189c	(85111524)	377328.09	3757779.25	0.97940c	(85122124)
377195.34	3757858.50	1.10007c	(85121824)	377239.59	3757858.50	2.54651c	(85121824)
377283.88	3757858.50	2.65886c	(85111524)	377328.09	3757858.50	0.94805c	(85122124)
377195.34	3757937.75	1.20244c	(85121824)	377239.59	3757937.75	2.56183c	(85121824)
377283.88	3757937.75	2.65148c	(85111524)	377328.09	3757937.75	0.88996c	(85122124)
377195.34	3758017.00	1.13538c	(85121824)	377239.59	3758017.00	2.59365c	(85121824)
377283.88	3758017.00	2.62130c	(85111524)	377328.09	3758017.00	0.84312c	(85121824)
377195.34	3758096.25	1.16302c	(85121824)	377239.59	3758096.25	2.61776c	(85121824)
377283.88	3758096.25	2.62693c	(85111524)	377328.09	3758096.25	0.84182c	(85112224)
377195.34	3758175.50	1.19022c	(85121824)	377239.59	3758175.50	2.64469c	(85121824)
377283.88	3758175.50	2.61024c	(85111524)	377328.09	3758175.50	0.80121c	(85111524)
377195.34	3758254.75	1.21584c	(85121824)	377239.59	3758254.75	2.54517c	(85121824)
377283.88	3758254.75	2.54779c	(85111524)	377328.09	3758254.75	0.95862c	(85121824)
377195.34	3758334.00	1.22363c	(85121824)	377239.59	3758334.00	2.68151c	(85121824)
377283.88	3758334.00	2.57794c	(85111524)	377328.09	3758334.00	0.98273c	(85121824)
377195.34	3758413.25	1.18433c	(85121824)	377239.59	3758413.25	2.69865c	(85121824)
377283.88	3758413.25	2.34539c	(85122224)	377328.09	3758413.25	1.00479c	(85121824)
*** ISCSCT3 - VERSION 02035 ***							
*** Downtown Natomas LRT			***				
*** Fugitive Dust - Mitigated			***				
***/12/03/08							
***/17:46:55							
PAGE 11							
*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***							
INCLUDING SOURCE(S): PM ,							
*** DISCRETE CARTESIAN RECEPTOR POINTS ***							

DNA Light Rail Transit MOS-1 Project PM₁₀ Emissions - Mitigated

```

** CONC OF PMTEN      IN MICROGRAMS/M**3      **
-----
X-COORD (M)  Y-COORD (M)      CONC      (YYMMDDHH)      X-COORD (M)  Y-COORD (M)      CONC      (YYMMDDHH)
-----
377195.34   3758492.50      1.12951c (85121824)      377239.59   3758492.50      2.32092c (85121824)
377283.88   3758492.50      2.32234c (85112224)      377328.09   3758492.50      1.00928c (85121824)
*** ISCST3 - VERSION 02035 ***      *** Downtown Natomas LRT      ***      12/03/08
*** Fugitive Dust - Mitigated      ***      17:46:55
**MODELOPTs:      URBAN FLAT  FLGPOL DFAULT      PAGE 12
CONC

```

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

```

** CONC OF PMTEN      IN MICROGRAMS/M**3      **
-----
GROUP ID      AVERAGE CONC      RECEPTOR (XR, YR, ZELEV, ZFLAG)      OF TYPE      NETWORK GRID-ID
-----
ALL      1ST HIGHEST VALUE IS      0.97282 AT ( 377283.88, 3757620.50, 0.00, 1.60) DC      NA
      2ND HIGHEST VALUE IS      0.96407 AT ( 377283.88, 3757700.00, 0.00, 1.60) DC      NA
      3RD HIGHEST VALUE IS      0.95954 AT ( 377283.88, 3757541.50, 0.00, 1.60) DC      NA
      4TH HIGHEST VALUE IS      0.95748 AT ( 377283.88, 3757779.25, 0.00, 1.60) DC      NA
      5TH HIGHEST VALUE IS      0.95584 AT ( 377283.88, 3757224.25, 0.00, 1.60) DC      NA
      6TH HIGHEST VALUE IS      0.95564 AT ( 377283.88, 3758175.50, 0.00, 1.60) DC      NA
      7TH HIGHEST VALUE IS      0.95478 AT ( 377283.88, 3757303.50, 0.00, 1.60) DC      NA
      8TH HIGHEST VALUE IS      0.95459 AT ( 377283.88, 3758096.25, 0.00, 1.60) DC      NA
      9TH HIGHEST VALUE IS      0.95310 AT ( 377283.88, 3757858.50, 0.00, 1.60) DC      NA
      10TH HIGHEST VALUE IS      0.95023 AT ( 377283.88, 3758017.00, 0.00, 1.60) DC      NA

```

```

*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
                       BD = BOUNDARY

```

```

*** ISCST3 - VERSION 02035 ***      *** Downtown Natomas LRT      ***      12/03/08
*** Fugitive Dust - Mitigated      ***      17:46:55
**MODELOPTs:      URBAN FLAT  FLGPOL DFAULT      PAGE 13
CONC

```

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

```

** CONC OF PMTEN      IN MICROGRAMS/M**3      **
-----
GROUP ID      AVERAGE CONC      DATE      RECEPTOR (XR, YR, ZELEV, ZFLAG)      OF TYPE      NETWORK GRID-ID
-----
ALL      HIGH 1ST HIGH VALUE IS      2.85244c ON 85122124: AT ( 377283.88, 3756907.25, 0.00, 1.60) DC      NA

```

```

*** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
                       BD = BOUNDARY

```

```

*** ISCST3 - VERSION 02035 ***      *** Downtown Natomas LRT      ***      12/03/08
*** Fugitive Dust - Mitigated      ***      17:46:55
**MODELOPTs:      URBAN FLAT  FLGPOL DFAULT      PAGE 14
CONC

```

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

```

A Total of      0 Fatal Error Message(s)
A Total of      0 Warning Message(s)
A Total of      1754 Informational Message(s)
A Total of      1754 Calm Hours Identified

```

```

***** FATAL ERROR MESSAGES *****
*** NONE ***

```

```

***** WARNING MESSAGES *****
*** NONE ***

```

```

*****
*** ISCST3 Finishes Successfully ***
*****

```